NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Technical Report No. 32-740

Mariner Mars 1964 Project Report: Mission and Spacecraft Development

Volume II: Appendixes

GPO PRICE $ _____

CFSTI PRICE(S) $ _____

Hard copy (HC) $6.12

Microfiche (MF) 6.54

ff 653 July 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA, CALIFORNIA

March 1, 1965

FACILITY FORM 602

N66 33718 (ACCESSION NUMBER)

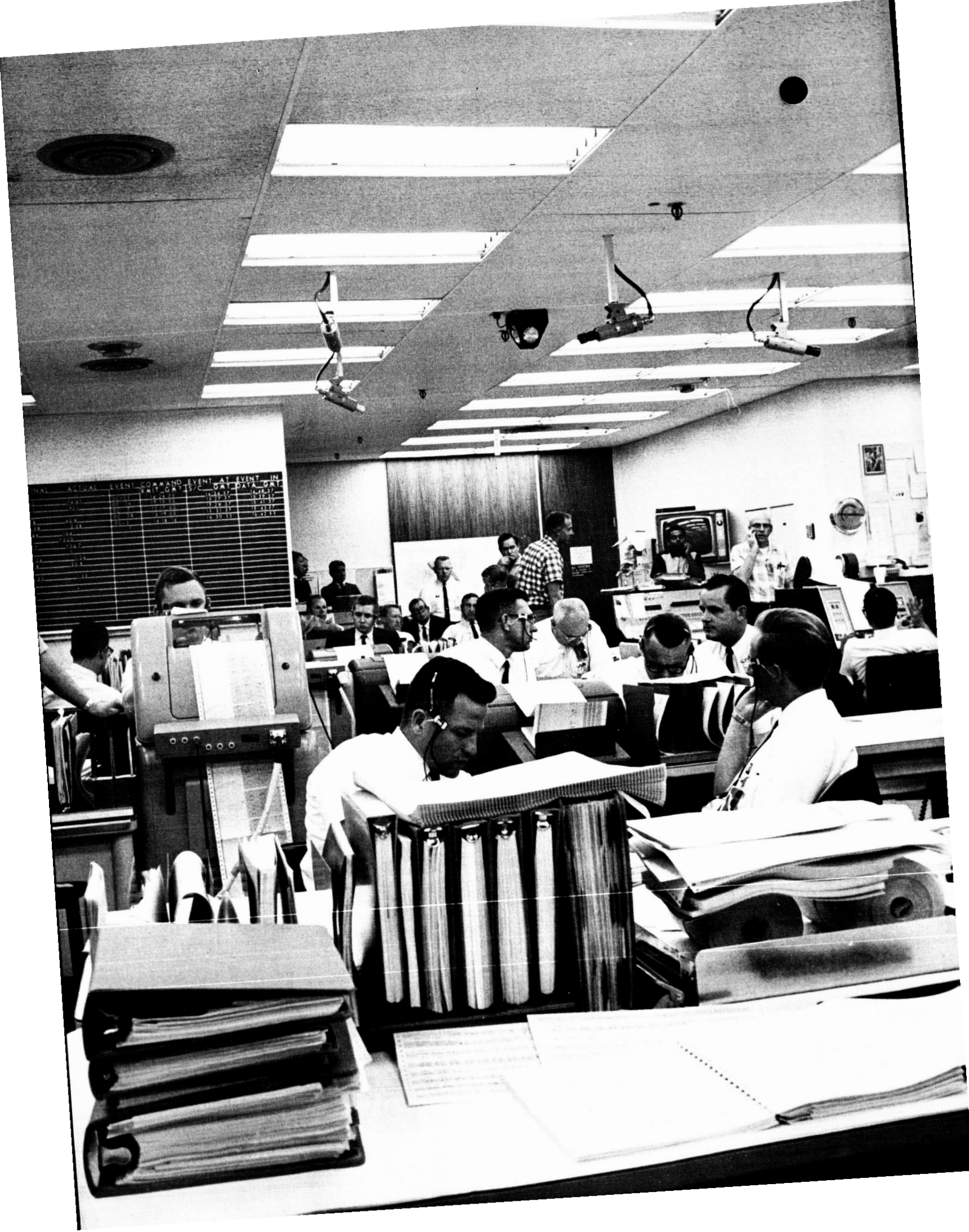
(THRU)

562 (PAGES)

1 (CODE)

CR-77110 (NASA CR OR TMX OR AD NUMBER)

31 (CATEGORY)


ACTUAL
EVENT
COMMAND EVENT
AT EVENT
IN

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Technical Report No. 32-740

Mariner Mars 1964 Project Report: Mission and Spacecraft Development

Volume II: Appendixes

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA, CALIFORNIA

March 1, 1965

Copyright © 1966
Jet Propulsion Laboratory
California Institute of Technology

Prepared Under Contract No. NAS 7-100
National Aeronautics & Space Administration

FOREWORD

This volume of the *Mariner* Mars 1964 Project Report contains the basic working documents that were used during the project for monitoring and controlling the progress of spacecraft development. No attempt has been made to recast these documents into a formal style or format; they appear here in essentially the same form as that in which they were used during the project.

It is hoped that the material included here will provide a fairly comprehensive picture of the management devices used in the development of a successful interplanetary spacecraft. Many of these documents may be of use as reference material to those working on other interplanetary missions. A brief explanation is included with each appendix, and a more complete discussion is found in Volume I of TR 32-740.

ELEMENTS OF THE *MARINER* MARS 1964 PROJECT REPORT

The *Mariner* Mars 1964 Project Report consists of the following volumes:

Mariner Mars 1964 Project Report, Mission and Spacecraft Development, Volume I: From Project Inception Through Midcourse Maneuver (TR 32-740, Vol. I)

Mariner Mars 1964 Project Report, Mission and Spacecraft Development, Volume II: Appendixes (TR 32-740, Vol. II)

Mariner Mars 1964 Project Report, Mission Operations (TR 32-881)

Mariner Mars 1964 Project Report, Spacecraft Performance and Analysis (TR 32-882)

Mariner Mars 1964 Project Report, Scientific Experiments (TR 32-883)

Mariner Mars 1964 Project Report, Television Experiment, Part I: Investigators' Report (TR 32-884, Part I)

Mariner Mars 1964 Project Report, Television Experiment, Part II: Picture Element Matrices (TR 32-884, Part II)

Tracking and Data Acquisition Support for *Mariner* Mars 1964, Volume II: Cruise to Post-Encounter Phase (TM 33-239, Vol. II)

CONTENTS

Appendix A. ***Mariner* Mars 1964 Project Policy and Requirements** 1
I. *Mariner C* Project Policy and Requirements 3
II. *Mariner C* Project Policy and Requirements Addendum 1. Space Flight Operations 68

Appendix B. **List of Effective Documents** 91
I. Spacecraft 93
II. Operational Support Equipment 141
III. Space Flight Operations System 148

Appendix C. ***Mariner* Mars 1964 Drawing Lists** 153
I. *Mariner* Mars 1964 Drawing List: Flight Offset . . . 155
II. *Mariner* Mars 1964 Drawing List: OSE Numerical . . . 251

Appendix D. **Freeze List** 325

Appendix E. **Change Control Report** 345

Appendix F. ***Mariner* Mars 1964 P-List** 421

Appendix G. **Progress Monitoring Devices** 431
I. Typical Schedules 433
II. Flow Charts 457
III. Manual Sort Card and Trend Graphs 461
IV. SAF Delivery Summary and Charts 469
V. Hardware System Qualification Matrixes 475

Appendix H. **Problem/Failure Report Summary** 481

APPENDIX A

Mariner Mars 1964 Policy and Requirements

The *Mariner C Project Policy and Requirements* document, reproduced in this appendix, established the operational procedures for the project within JPL by stating mission objectives, system requirements, and milestones, and by providing an overall guideline schedule. The document resembles the *Mariner C Project Development Plan* in that it represents the compact between the JPL Project Office and the JPL line management for execution of the project. Together with the budget guidelines issued periodically, this document became the keystone for conduct of in-house project activities. In many cases, the JPL technical divisions engaged subcontractors to perform services in line with the responsibilities defined in the document. Among the basic innovations and extensions to the similar document used for the *Mariner* Venus 1962 Project were the following additional requirements:

1. Parts screening
2. Problem/failure report system
3. In-process inspection
4. Comprehensive documentation
5. Rigorous status monitoring

The *Mariner C Project Policy and Requirements* document complemented the *Mariner C Project Development Plan* by expanding the system management concepts into a matrix organization and presenting a compatible project master schedule.

I. *MARINER C* PROJECT POLICY AND REQUIREMENTS

ENGINEERING PLANNING DOCUMENT
NO. 150

MARINER C
PROJECT POLICY AND REQUIREMENTS

EPD - 150 25 February 1963

Approved:

J. N. James
Mariner Project Manager
Lunar and Planetary
Projects Office

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA, CALIFORNIA

PRECEDING PAGE BLANK NOT FILMED.

Copyright © 1964
Jet Propulsion Laboratory
California Institute of Technology

Prepared Under Contract No. NAS 7-100
National Aeronautics & Space Administration

CONTENTS

Section		Page
I.	PURPOSE OF DOCUMENT	I-1
II.	PROJECT DESCRIPTION AND GENERAL REQUIREMENTS	II-1
	A. Mission Objectives	II-1
	B. Project Plan	II-1
	C. Equipment Description and Requirements	II-2
III.	DESIGN REQUIREMENTS	III-1
	A. Spacecraft Design Specification Book	III-1
	B. Operational Support Equipment Design Specification Book (OSEDS)	III-3
	C. Interface Circuit Data Sheets	III-3
	D. Spacecraft Configuration Drawing	III-4
	E. Spacecraft Control Drawing	III-4
	F. Equipment List	III-4
	G. Design Control for Spacecraft and OSE	III-5
	H. Design Documentation	III-7
	I. Spacecraft-Launch Vehicle Integration Document	III-12
	J. Launch Constraints Planning Document	III-13
	K. Spacecraft-SFO/DSIF Interface Document	III-14
	L. Design and Q.A. Reviews	III-15
IV.	QUALITY REQUIREMENTS	
	A. Functions of the Q.A. Organization	IV-1
	B. In-Process Inspection	IV-2
	C. Spacecraft Equipment Certification at SAF	IV-3
	D. Material Review Board	IV-4
	E. Failure Reporting	IV-4
	F. Controlled Parts	IV-5
	G. Protection of Flight Hardware	IV-6

CONTENTS (Con't)

Section		Page
V.	SUBSYSTEM TESTING REQUIREMENTS	
	A. General Environmental Specification	V-1
	B. Environmental Test Specifications	V-1
	C. Environmental Test Reports	V-2
	D. Environmental Type Approval and Life Testing	V-3
	E. Environmental Flight Acceptance Testing	V-3
	F. Subsystem Compatibility Tests	V-3
	G. Magnetic Control Tests	V-3
VI.	SPACECRAFT SYSTEM TEST AND OPERATIONS REQUIREMENTS	
	A. Procedures and Check Sheets	VI-1
	B. Equipment Status Reports	VI-1
	C. Proof Test Model (PTM) Qualification and Life Testing	VI-1
	D. Flight Qualification Tests of Spacecraft	VI-2
	E. Spacecraft Operations	VI-2
	F. Space Flight Operations	VI-4
	G. Operations Interface Documents	VI-5
	H. Spares and Replacement	VI-6
VII.	PROCUREMENT REQUIREMENTS	
	A. Procurement Initiation	VII-1
	B. Procurement Instructions	VII-3
	C. Experimenter Contracts	VII-3
VIII.	PERSONNEL REQUIREMENTS	
	A. Division Representatives	VIII-1
	B. Spacecraft System Manager	VIII-3
	C. Systems Division Representatives	VIII-6
	D. Q.A. Organization Representative	VIII-7
	E. Procurement Representative	VIII-7

CONTENTS (Con't)

Section		Page
IX.	SCHEDULING REQUIREMENTS	
	A. Project Schedules	IX-1
	B. Spacecraft Equipment Flow Plans	IX-1
	C. Project Evaluation and Review	IX-4
X.	REGULAR MEETING REQUIREMENTS	
	A. Weekly Meetings	X-1
	Attachment 1 - Schedule of Events	A-1

SECTION I

PURPOSE OF THE DOCUMENT

To establish policy and place requirements on the appropriate JPL Divisions for the Mariner C Project carrying through the P-70/71/72 missions. It should be the intent of all divisions to meet all of the requirements listed herein and in the approved Project Schedules, or in any approved revision to these documents, without exception, unless specifically waived by the Project Manager. This document supplements the Mariner C Project Development Plan, and shall be the controlling document establishing requirements for design control, accomplishing hardware delivery, documentation, testing, quality assurance, scheduling, etc. Since this document contains the minimum project level requirements, it is expected that all divisions will impose within their areas of responsibility, additional requirements consistent with those of this document and funding allocations.

SECTION II

PROJECT DESCRIPTION AND GENERAL REQUIREMENTS

A. MISSION OBJECTIVES

See Section 2 of Mariner C Spacecraft Design Specification Book (SDS)-MC-2-110.

B. PROJECT PLAN

Complete Type Approval (TA) tests are to be conducted and completed no later than one month prior to the delivery of flight hardware to the Spacecraft Assembly Facility (SAF) for the P-70/71/72 missions. These equipments are then to be subjected to subsystem life-testing where applicable.

The delivery of two sets of flight equipment is to be made to SAF as indicated on the attached Project Schedule. One set of flight equipment will be assembled and one set will be carried as a spare. The assembled spacecraft and supporting spares will be committed to Proof Test Model (PTM) testing. After design qualification tests, the PTM shall be subjected to further spacecraft system life-testing.

Four sets of flight equipment and certain selected spares are to be delivered to support the P-70/71/72 missions as indicated on the attached schedule. Three spacecraft will be assembled for these missions. The three spacecraft are to be completely qualified prior to shipment to the range.

It shall be planned to launch the P-70/71/72 missions from two launch pads. There shall be a capability to launch the first two missions from separate launch pads with a minimum separation of two days. The third mission shall be launched from the same pad as the first mission. Until launch minus a few hours, a capability should exist to commit to the first launch from either space vehicle on either pad. The residual spacecraft hardware shall be operated to support space flight operations to resolve flight anomalies.

It is required that any conflicts with other Laboratory activities be brought to the attention of the Mariner Project Management.

C. EQUIPMENT DESCRIPTION AND REQUIREMENTS

1. Equipment Description

a. Spacecraft

See the SDS for description of design. The following types of spacecraft equipment are required:

(1) Structual Test Model (STM)
(2) Temperature Control Model (TCM)
(3) Proof Test Model (PTM)
(4) Type Approval Equipment (TA)
(5) Flight Spacecraft
(6) Spacecraft Spares

b. Operational Support Equipment (OSE)

(1) Systems Test Complex (STC): The systems test complex (STC) will be the basic test equipment unit used in tests and operations to verify the adequacy of the spacecraft design, fabrication, assembly, and flight readiness. The STC as an objective will have the capability to power, command, and monitor the performance of the spacecraft down to the provisioned spares level. Consideration shall be given to using Mariner R STC equipment where applicable.

The STC design shall be such that the possibility of damaging the spacecraft by a malfunction in the STC or operator error is highly unlikely.

(2) Launch Complex Equipment (LCE): Launch Complex Equipment (LCE) will be used to power, command, and monitor the spacecraft during all pad operations. Portions of the STC shall be capable of performing telemetry monitoring of the spacecraft during pad operation to determine flight readiness. JPL - furnished launch pad equipment, such as generators, etc., are considered

a part of the LCE set. Consideration shall be given to using Mariner R LCE equipment where applicable. The LCE design shall be such that the possibility of damaging the spacecraft by a malfunction in the LCE or operator error is highly unlikely.

The LCE shall be configured where necessary to support operations at the Explosive Safe Area and as spares in the launch area.

(3) Miscellaneous OSE: Additional OSE such as dummy loads, in-line cable adapters, hoisting fixtures, spacecraft transport dolly's, etc., are required.

c. Launch Vehicles

Three SSLV/Agena D launch vehicles are required with peculiar modifications to meet the mission requirements defined in JPL "Launch Vehicle - Spacecraft System Integration Planning Document".

d. Compatibility Verification Equipment

Normally the STC/LCE combination should be adequate to commit the spacecraft system to launch. DSIF Station 0 may be used to assure the compatibility of the spacecraft and the DSIF prior to launch. It or its equivalent must be employed in spacecraft qualification testing at SAF since all such design and flight readiness qualifications, such as J-CLOT, must be performed on the spacecraft prior to shipment to the range. Alternatively each STC can be provided with equivalent capability.

e. Space Flight Operations Facility (SFOF)

The SFOF shall be utilized to conduct the flight operations of the P-70/71/72 mission. Those portions of EPD 68, "SFOF Design Criteria" as necessary to meet the requirements of this document shall be made operational.

The DSIF shall be utilized to communicate with the Mariner C spacecraft during space flight operations. It is a requirement to implement certain redundant capabilities at the appropriate DSIF stations and in the communication nets.

Mission requirements for a dual launch must be satisfied by the SFOF and DSIF during pre-flight and flight operations for the P-70/71/72 missions. Detailed interface requirements shall be established by the Spacecraft - SFO/DSIF Integration Planning Document. Operational requirements shall be described in the Space Flight Operations Plan. For the P-70/71/72 mission, at least 24 hour/day coverage is required for the duration of the flight until approximately two weeks after satisfactory planetary data has been recovered. The P-70/71/72 mission shall time share this minimum 24 hour/day capability on a negotiated basis. There must be a capability for a considerable amount of simultaneous reception from two spacecraft throughout the flight operations. Conflicts with other projects will be negotiated.

Control of Mariner C peculiar equipment at DSIF Station and SFOF shall be handled in the same manner as OSE.

2. Spacecraft Equipment Requirements Summary

Equipment	Quantity	Proj. Ref. No.	Utilization	Subsystem Testing Requirements	System Testing Requirements
S/C Development	As Budgeted	None	Breadboards, Protos, etc.	Design concept documentation & inter subsystem compatibility	None
Structural Test S/C	1	STM	Div. 35 Structural Design	Division 35, 34	Division 35
Temperature Control S/C	1	TCM	Div. 35 Temp. Control Test	Division 35	Division 35
S/C Type Approval	1 set	T. A.	T. A. & Compatibility test	T. A., Subsystem Life OSE Compat.	None
Assembled Flight S/C	1	MC-1	PTM allocation	F. A.	System Design Verification & Life
Flight S/C Spares	1 set	MC-2	Spare for PTM	F. A.	None Planned
Assembled Flight S/C	1	MC-3	P-70 Mission	F. A.	System Flight Qualification @SAF, Flight Prep. @AMR
Assembled Flight S/C	1	MC-4	P-71 Mission	F. A.	System Flight Qualification @SAF, Flight Prep. @AMR
Assembled Flight S/C	1	MC-5	P-72 Mission	F. A.	System Flight Qualification @SAF, Flight Preparation @AMR

2. Spacecraft Equipment Requirements Summary (Continued)

Equipment	Quantity	Proj. Ref. No.	Utilization	Subsystem Testing Requirements	System Testing Requirements
Flight S/C Spares	1 set	MC-6	Spare for P-70/71/72 Missions	F. A.	None Planned
Flight S/C Spares	1 partial set	MC-7	Spares for P-70/71/72 Mission	F. A.	None Planned

NOTE: Approved design changes must be made in all sets of TA, PTM, Flight and spare equipment. Articles subjected to life or T. A. testing may not be used for flight.

3. OSE Equipment Requirements Summary

Equipment	Quantity	Proj.Ref.No.	Utilization	Require Del. to SAF
Assembled STC	1	STC-1	PTM	yes
Assembled STC	1	STC-2	Flight S/C	yes
Assembled STC	1	STC-3	Flight S/C	yes
Assembled STC	1	STC-4	Flight S/C	yes
Assembled LCE	1	LC-1	Blockhouse A	yes
Assembled LCE	1	LC-2	Blockhouse B	yes
Assembled LCE	1	LC-3	ESA and Spare	yes

NOTE: All sets of STC shall be maintained identical.

All sets of LCE shall be maintained identical.

All sets of DSIF and SFOF Mariner C Peculiars shall be maintained identical.

SECTION III

DESIGN REQUIREMENTS

A. SPACECRAFT DESIGN SPECIFICATION BOOK (SDS)

It is required that a single SDS be prepared and maintained current by all divisions through final lift-off of the P-70/71/72 mission. The Systems Division is responsible for the general preparation, integration and publishing of the information in the SDS. The SDS is to represent the culmination of the preliminary design and is to be completed at the conclusion of this design. (See attached schedule) The sections of the SDS shall be prepared as follows:

Section	Prepared By	Initial Issue & Changes Approved By
Introduction	Systems Division	Section 313 Chief
Mission Objectives & Design Criteria	Project Manager	Director of Projects
Design Characteristics & Restraints	S/C Project Engineer	S/C System Mgr/Section 313 Chief
Functional Specification*	Division Representative	S/C Project Engineer

* Functional specification will be listed on the freeze list after first issue and subsequently changed by ECR action only.

B. OPERATIONAL SUPPORT EQUIPMENT DESIGN SPECIFICATION BOOK (OSEDS)

It is required that an OSE Design Specification book be prepared and maintained current by all divisions through lift-off of the P-70/71/72 mission. The Systems Division is responsible for the general preparation, integration and publishing of the information in the OSEDS. The OSEDS is to include functional specifications to define the interfaces between elements of the OSE itself as well as those of the OSE/SC or OSE facility. See attached schedule for due dates. The sections of the OSEDS shall be prepared as follows:

Section	Prepared By
Introduction	Systems Division
Test Philosophy and Design Verification	Spacecraft Systems Manager
Design Characteristics and Restraints	Spacecraft Project Engineer
Functional Specification	Division Representatives

Functional specifications will be listed on the freeze list after first issue and subsequently changed by ECR action only.

C. INTERFACE CIRCUIT DATA SHEETS

To further define electrical interfaces beyond the functional specifications, interface circuit data sheets are required.

Interface Circuit Data Sheets describe, in terms familiar to the circuit designer, all spacecraft electrical interfaces and include circuits between subsystems, circuits within a subsystem whose connections are routed through the spacecraft ring harness and circuits connecting the spacecraft with the OSE. The circuit descriptions and signal characteristics documented by these interface data sheets constitute control documents defining the interfaces. The interfaces between subsystems shall be cooperatively generated between the subsystems involved. The Systems Division shall be responsible for mediating any disputes arising out of disagreements between subsystem circuit designers.

Further, the Spacecraft Project Engineer shall maintain and keep current these circuit data sheets. They shall be put on the freeze list after issue. Issue shall not be made until complete agreement as to the interfaces exists.

D. SPACECRAFT CONFIGURATION DRAWING

To define the location of all subassemblies on the spacecraft, but not necessarily to detailed dimensions, the Engineering Mechanics Division shall prepare Spacecraft - Configuration Drawings. These drawings shall be cosigned by the Spacecraft Project Engineer and placed on the freeze list at a prescribed schedule data.

E. SPACECRAFT CONTROL DRAWING

In order to control dimensions and finishes, the Engineering Mechanics Division shall prepare Configuration Control Drawings.[1] These drawings shall be cosigned by the Spacecraft Project Engineer and placed on the freeze list at a prescribed schedule date.

F. EQUIPMENT LIST

Based on the spacecraft layout, it is required that the Spacecraft Project Engineer coordinate, prepare, and submit to the Spacecraft System Manager and the Project Manager an equipment list. All subassemblies and parts shall be grouped together per the SAF delivery configuration, as recommended by the Spacecraft Project Engineer. It is assumed that as a general rule these equipment groups would also represent the configuration in which equipment would be both carried as spares and environmentally TA and TA tested. Thus Environmental TA and FA Test Specifications would be written for each of these equipment groups. Such groupings of hardware are defined as "provisioned spares".

[1]NOTE: Refer to JPL Re-Order No. 62-142.

G. DESIGN CONTROL FOR SPACECRAFT AND OSE

1. Freeze List

To "freeze" the design is to bring it under ECR control. Initially, critical interfaces will be frozen and as the interfaces are better defined in detail, this detail design will be frozen. Prior to November 1, 1963, the total spacecraft design shall be frozen. Total freeze on OSE will occur prior to May 1, 1964. At this designated time it is no longer necessary to maintain a freeze list.

The freeze list shall be maintained and issued by the S/C Project Engineer and he will determine when interface documents shall be listed and at which time they will be brought under ECR control. Every document on the freeze list shall be binding on the design. When these documents are modified by ECR action, revision letters shall be shown on the freeze list.

The freeze list shall typically contain the following:

(a) Functional Specifications
(b) Interface Circuit Data Sheets
(c) Spacecraft Configuration Drawings
(d) Spacecraft Control Drawings
(e) Cabling Harness Diagrams
(f) General Environmental Specifications
(g) Other general specifications influencing design

2. ECR Action

The need to made changes may result from design or hardware reviews, prototype testing, TA testing, etc.

Changes to TA, PTM, or flight spacecraft hardware; to OSE, and to associated drawing and specifications, once they fall under ECR control as defined above shall be made only after approval of a properly completed ECR. The ECR shall contain a functional description of the proposed change and

sufficient detail information so that performance, schedule, cost and effectivity implications of the proposed change can be determined. Anyone may initiate an ECR. As a part of the approval process, the appropriate division shall assign a follow-up engineer to each ECR. In cases where more than one division is affected, a separate ECR will be prepared for each division. Approval of ECR's is made by the S/C Project Engineer and requires the cognizant engineer to implement the required changes in detail and to report on the completion of all follow-up action. For example this follow-up report should certify that the authorized changes have been incorporated in all appropriate hardware and documentation. A procedure will be instituted to ensure that the ECR is complete and documented.

a. The initator shall be responsible for:

(1) Determining the requirements for the ECR.

(2) Evaluating to the degree possible the proposed ECR in terms of subsystem compatibility, reliability, cost and schedules prior to submission to the Spacecraft Project Engineer.

b. The Spacecraft Project Engineer shall be responsible for:

(1) Reviewing the ECR and approving or disapproving after verifying the acceptability of the change to all affected subsystem groups.

(2) Establish with the appropriate division assignment of a follow-up engineer to implement the approved change in detail.

c. The follow-up engineer shall be responsible for:

(1) Accomplishing all necessary changes to both documentation and hardware as approved in the ECR.

(2) Informing the Spacecraft Project Engineer of any problems encountered in accomplishing the change.

(3) Advising the cognizant Section Chiefs of the required change.

(4) Requesting reinspection of hardware to the change.

(5) Accomplishing the hardware requalification as required.

d. Quality Assurance shall be responsible for verifying that adequate inspection has been conducted on all reworked hardware to the appropriate revised or supplementary documentation.

Any appeals concerning ECR approvals should be brought to the attention of the Spacecraft System Manager. The Spacecraft System Manager shall convene the Mariner Design Review Board to evaluate ECR's at his discretion.

H. DESIGN DOCUMENTATION

1. General

Design documentation includes drawings, design specifications, detail specifications, environmental test specifications, and general specifications determining design. A summary follows.

Type	Documentation Requirements
Drawings	Required on all S/C and OSE to duplicate.
Drawing Lists	Required on all S/C and OSE as above. Update and issue no less than once every month.
Design Specification	Required on all S/C. Desired on OSE.
Detail Specification	Required on S/C and OSE only where Division deems necessary to supplement drawing for fabrication.
Environmental Test Specification	Required on all S/C per equipment list.

Type	Documentation Requirements
General Specifications	Required where applicable.
Specification Lists	Required on all above specs. Update and issue no less than once every month.

A summary of the Mariner C Project Policies concerning design documentation follows and the methods of documentation and the minimum standards applied thereto shall be common to all divisions and for all flights. The design documentation shall:

(a) Be of such format, completeness, detail, and accuracy that flight and OSE hardware can be accurately reproduced by the supplying division.

(b) Establish an accurate record of all spacraft hardware, and be complete and adequate for review purposes on a continuing basis. Description of the hardware "as flown" will be complete two weeks after spacecraft lift-off.

(c) Provide inspection requirements and criteria sufficient to aid and allow the inspection of significant design details by the Quality Assurance organization.

(d) Be complete and listed prior to delivery of flight hardware to SAF. All revisions must be incorporated and properly listed within two weeks after launch.

2. Drawings and Listing

It shall be the responsibility of the Engineering Mechanics Design Section, 356, to establish drafting standards suitable to the Projects and to provide a design, drafting, check and release service to the technical sections. They will judiciously aid and assist the technical sections in accomplishing the degree of documentation required above. Definitions of the classes of drawings, format requirements, and release procedures are described in JPL Specification 20030A. Spacecraft hardware and OSE must be inspected to good quality documentation prior to delivery to SAF.

Designs which are accomplished in-house shall result in drawings which meet the requirements of the JPL Design and Drafting Manual.

Designs which are accomplished out-of-house shall result in drawings which meet the requirements of JPL Specification 20030A. Specification 20030A permits the use of formats other than that of JPL. When a contractor is being considered for, or has already started a contract, the cognizant technical section shall enlist the support of Section 356 to evaluate the contractor's drawing standards. The Section 356 engineer will apprise the cognizant technical section chief of the suitability of the contractor's standard in meeting the established program objectives. The technical section chief may waive the requirements of 20030A, providing he deems the contractor format suitable, by written statement to the Spacecraft Systems Manager.

All drawings used in the Mariner C design will be listed on a comprehensive offset drawing list prepared by Section 356. The Spacecraft Project Engineer will provide Section 356 with an equipment list which will serve as a starting point for the drawing list. Information required by Section 356 to "prepare and maintain" the drawing list is described in JPL Specification 20030A. Each Division Project Representative is charged with the responsibility of maintaining adequate liaison with Section 356 to see that sufficient information is available to permit regular updating of the list.

The preparation of drawings must be scheduled such that at every in-process inspection point adequate assembly drawings showing every part with a parts list (in some cases photographs are acceptable for this purpose) must be available for inspection. By November 1, 1963, a total set of such drawings along with schematics and control and configuration drawings must exist and be listed.

3. Specifications and Listing

The Systems Division has the responsibility to establish specification standards and format suitable to the Projects and to provide a writing, editing, typing, release, and control service to the technical sections. It is encouraged but not required that all specifications conform to the JPL format defined in Engineering Planning Document No. 8, and each JPL prepared specification

must carry a number assigned by Section 315. For contractual purposes, the JPL Specification must be of EPD-8 quality. The objectives, content and applicability of the various types of specifications shall adhere to the statements below. Any specification may be subjected to ECR control by putting it on the freeze list.

a. Functional Specifications

The scope and purpose of the Functional Specifications are defined in the SDS Book "Introduction" (MC-1-110).

b. Design Specifications

Design Specifications shall be prepared on all spacecraft equipment subsequent to the completion of the Functional Specifications for the purpose of directing design unless specifically waived by the Spacecraft System Manager. Design Specifications shall define interface mechanizations and shall include a detailed description of equipment operation, the error allocations within the equipment, performance parameters, and quality assurance provisions required to initiate and complete a detail design for that item of equipment, whether the design is conducted within JPL or by a subcontractor. Bench performance testing may be included. These specifications shall be signed by the Spacecraft Project Engineer to assure compatibility of the technical interfaces involved. They shall, as a minimum requirement, also be signed by the cognizant engineer.

c. Detail Specifications

Detail Specifications shall be prepared concurrently with the design and development of equipment and prior to the fabrication of end item equipment where necessary to supplement drawings, for the purpose of fabrication. The Detail Specifications and associated drawings provide a complete compilation of the necessary information for fabrication and inspection. Bench performance testing may be included. These specifications shall be signed by the cognizant engineer.

d. Environmental Test Specifications

The Systems Division shall be responsible for establishing the general environmental requirements in the form of general specifications for type approval and flight acceptance testing. The divisions shall be expected to perform their testing in a manner that is consistent with the intent of these general environmental specifications and as is appropriate to each piece of hardware. For Mariner C, this specification shall be Environmental Specification 30250B, 30251B. This specification shall be under the ECR System by placement on the freeze list to assure that specification revisions are adequately noted for incorporation into the design and properly integrated into the test program, and to ensure consideration of the consequences of the revisions before making the revisions.

Environmental Type Approval and Flight Acceptance Test Specifications (they may be combined or separate), are to be prepared, as a general rule, for each equipment grouping shown on the Equipment List (see III-F). If, in special cases, any of these equipment groups must be broken for any reason for environmental testing, such exceptions will be a consequence of the proposals to do so by the respective divisions in Spacecraft Equipment Flow Plans and the subsequent approval of these plans by the Project and Spacecraft System Managers. In such cases, Environmental TA and FA Test Specifications must be prepared on each sub grouping of equipment. Test Specifications must include:

(1) Identification of equipment configuration subjected to tests.

(2) Environmental type approval and flight acceptance tests consistent with each step of Environmental Specification 30250B, 30251B.

(3) Performance criteria, easily understood by test personnel, by which the acceptance or rejection of the assembly is determined under stressed environments.

(4) Pre and Post Environmental Test performance checks where applicable.

(5) Description of Support Equipment required for test.

Bench performance testing may be included.

Each Environmental Test Specification shall be submitted to the Environment Requirements Project Representative for review well in advance of the time TA and FA Environmental Tests are to begin. Each specification must carry the signatures of the cognizant Section Chief or his designated alternate and the Environmental Requirements Project Representative.

e. Specification List

A specification offset list shall be prepared for each project. An engineer in Section 315 shall be designated to prepare and maintain this list. Sections 315 and 356 shall closely coordinate the preparation of the specification offset list and the drawing offset list. The specifications required for this project may be updated from existing specifications, if applicable, and listed on the specification offset list.

As in the case of Drawing Lists, each Division Project Representative shall make arrangements to provide updated inputs to the Specification List.

As an aid in preparing the offset lists, each division shall contribute their information via worksheets provided by Section 315.

I. L/V-S/C SYSTEM INTEGRATION DOCUMENT

Such a document is required and its preparation shall be the responsibility of the Project Representative of Section 311. Among others, it should be reviewed by the Spacecraft System Manager or his designated representative, and is an official Project requirement when signed by the Project Manager. Revisions require the same coordination and signatures.

This document shall define the project requirements and constraints placed on the launch vehicle system and shall contain as much spacecraft and launch vehicle system details as is necessary to develop and control the interface.

J. LAUNCH CONSTRAINTS PLANNING DOCUMENT

Such a document is required and its preparation shall be the responsibility of the Launch Constraints Representative. Among others, it should be reviewed by the Space Flight Operations Test Director, the Spacecraft Systems Manager, and the Project Representatives of Section 311, 312, 314, and the DSIF. The function of this document is as follows:

(1) To describe the requirements for tracking and telemetry support in the period from launch through launch plus three hours.

(2) To provide information which will describe the resources available to meet these requirements.

(3) To examine all other areas such as spacecraft, range safety, launch vehicle, etc., for constraints to the design of the launch period and launch window.

(4) To develop a launch constraints plan based on the information described in Sections 1, 2 and 3, and the characteristics of the near earth trajectories. This plan will be a project requirement when signed by the Project Manager.

This document is to be prepared early in the Project to guide other actions. These guidelines will be followed in preparing the document.

(1) Class I coverage designation shall be used and indicates coverage which is mandatory. The lack of such coverage may justify a hold of the launch. Class II coverage designation shall be used and indicates coverage which is desirable. The lack of such coverage does not justify a hold of the launch.

(2) Data requirements in the area of telemetry and tracking coverage shall be obtained from the following areas:

Area	Source
Launch Vehicle	Project Rep. Section 311[1]
Spacecraft Events	SDAT Director
Orbit Determination	Project Rep. Section 312
DSIF Acquisition	Project Rep. DSIF

(3) Information obtained from the AFMTC, the JPL NTSO Representative and others shall be used in the determination of expected AMR tracking and telemetry coverage.

(4) Information obtained from the DSIF Project Representative, the SFO Test Director, the Trajectory Design Engineer, and others will be used to determine the expected DSIF tracking and telemetry coverage.

(5) Appropriate maps, graphs and charts will be prepared as part of the launch operations plan. A summary plot of launch window vs launch day indicating the constraints bounds and the reasons for the bounds will be included.

(6) Methods for improving tracking and telemetry coverage will be included.

This document will be used as a guideline to the Program Requirements Document (PRD), the Space Flight Operations Plan (SFOP), the Assembly and Operations Plan (AOP), S/C-LV integration document, the S/C-DSIF-SFOF interface document and other interface documentation.

K. SPACECRAFT-SFO/DSIF INTERFACE DOCUMENT

Such a document is required and its preparation shall be the responsibility of the SFO System Manager. Among others it should be reviewed and approved by the DSIF and Spacecraft System Managers. It is an official Project requirement when signed by the Project Manager.

[1]Requirements for tracking and telemetry coverage of the launch vehicle are imposed by the Launch Vehicle Systems Manager.

This document emphasizes the design aspects of the interface between the spacecraft and the SFO/DSIF much in the manner of the L/V-S/C integration document. It shall contain as much spacecraft and SFO/DSIF system details as necessary to control the interface of the course of events from launch through encounter.

L. DESIGN AND Q.A. REVIEWS

1. Design Review Borad

A review program shall be conducted as the spacecraft design, fabrication and testing evolves. Reviews shall be performed at discrete times as indicated on the attached schedule, but may be called by the Spacecraft System Manager as required.

A Mariner Spacecraft Review Board shall be comprised as a minimum of Spacecraft Equipment and Systems Section Chiefs (or Assistant Section Chiefs if so designated), as required, the Director of Q.A., and chaired by the Spacecraft System Manager.

Attendance of other personnel such as Project Representatives and design team members shall occur as appropriate.

The Board shall consolidate its opinions and document its findings.

2. Systems Interface and Subsystems Design Review

The cognizant technical section shall be responsible for conducting a review on its subsystem for the Board, each review to be scheduled by the Program Engineer. In addition to the concerned members of the Review Board, representatives of System Design, Component Parts Evaluation, Design Documentation, Packaging, and Cabling activities shall participate.

A series of sessions will be held to review the subsystem designs and consistency with interface design. The purpose of these reviews is to examine the compatibility and consistency of the interface designs as described by the

Interface Circuit Data Sheets and to determine the degree to which the subsystem design meets the provisions of the Design Characteristics and Restraints Documents and Functional Specifications in the SDS. To the degree possible on the dates scheduled, these reviews shall include an evaluation of detail mechanization, component application, parts quality, packaging, electronic, and mechanical design.

As a rule, Design Specifications should be submitted to the Review Board in advance of the Review as preparation.

3. Hardware Review

The Spacecraft System Manager shall conduct a Hardware Review on all flight hardware delivered to SAF, and may appoint personnel as required to assist in this function. Inspection reports, failure reports, MRB actions, documentation, and test history shall be reviewed collectively to verify that applicable tests and inspections have been performed with acceptable results, and that the equipment quality meets the required standards.

SECTION IV

QUALITY REQUIREMENTS

A. GENERAL

It shall be the responsibility of Quality Assurance organization to establish and monitor quality assurance programs for all spacecraft hardware and Operational Support Equipment. It whould be clearly understood that the responsibility for quality lies clearly with the division supplying equipment and those divisions shall establish a plan, or see that their contractors establish a plan, to assure quality in spacecraft and OSE. The Quality Assurance Organization in turn shall verify the adequacy of the plans and shall perform a redundant monitoring function to provide assistance as an independent verification of assumed quality.

As a guide to establishing a plan for quality assurance activities with contractors and on-lab, JPL Specification 30274, Quality Control Requirements for Mariner Program Procurement, shall be followed whenever possible.

Until such time as the total specification can be met, each division shall see that the following sections of Specification 30274 are met by each contractor on spacecraft equipment:

(1) 3.3 (and 6. Note) Quality Assurance Plan Submission
(2) 3.4 Quality Assurance Plan Coverage
(3) 4.4.8 Material Review Board
(4) 4.4.11 Failure Reports
(5) 4.4.12 Monthly Summary of Failure Reports
(6) 4.4.16 In-Process Inspection
(7) 4.4.17 Final Inspection

The remainder of the sections are to be implemented as rapidly as possible.

B. IN-PROCESS INSPECTION

It is a Project Requirement that all spacecraft hardware is to be inspected in the process of fabrication or rework, to the appropriate drawings and specifications. Refer to Specification 30274.

Spacecraft electronic hardware is subject to inspection to the following specifications with revision letter as shown unless alternate criteria have been provided to Q.A. by the supplying division. No revisions of the following documents shall be applicable to the Mariner C Project without Spacecraft Systems Manager approval.

(1) JPL 20016C - General Specification, Workmanship Requirements for Electronic Equipment

(2) JPL 31128 - General Specification - Mariner C Flight Equipment, Electronic Packaging

(3) JPL 31170 - General Specification - Mariner C Flight Equipment

(4) JPL 20060A - Process Specification, Adhesives, Coatings, and Encapsulants for Electronic Packaging

(5) JPL 30261 - General Specification, Materials Processes and Hardware for Fabrication of Spacecraft Electronic Equipment

(6) JPL 30262 - General Specification, Soldered Cordwood Electronic Module Fabrication

(7) JPL 20014 - General Specification, Soldering Process

(8) JPL 20028 - General Specification, Terminal Boards, Fabrication of

(9) JPL 30879 - General Specification, Spacecraft Flight Equipment, Identification of Electronic Assembly Chassis

(10) JPL 20026 - General Specification, Component, Installation of

It is desired that OSE conform to the following:

(1) JPL 14902 - Wiring, Ground and Missile Electronic Equipment

(2) JPL 20027 - Securing of Components

(3) JPL 30600 - Paint Standard, NASA Ground Equipment

(4) JPL 30602 - Engraving on Ground Equipment

C. SPACECRAFT EQUIPMENT CERTIFICATION AT SAF

All divisions shall be required to certify all hardware to the Q.A. organization prior to its acceptance at the SAF for system use. Note that this certification is to be complete by the dates indicated on the attached schedule. If a division must stagger equipment deliveries, the last delivery must occur prior to the completion date scheduled. Certification shall convey the written record that the following minimum project requirements have been met:

(1) The FA testing was satisfactorily accomplished and the proper documentation completed.

(2) Records exist covering in-process and final hardware inspections, or, if deviations exist, records of such deviations by MRB action.

(3) All ECR's of record were implemented on the hardware prior to delivery.

(4) Statement of measured results in the following areas: weights, power consumption and accumulated running time, magnetic field mapping, and radioactive source identification.

(5) Design documentation is released.

(6) Other special requirements, as defined by each cognizant division, have been satisfied.

An external hardware inspection will be performed prior to certification.

D. MATERIAL REVIEW BOARD

The quality control personnel shall be responsible for inspecting spacecraft hardware and accepting or rejecting it depending on its conformance to the required criteria. Discrepant hardware can be utilized without rework if a Quality Assurance engineer and the cognizant engineer can agree. In cases where they do not agree, a third party shall be called upon to constitute an MRB. This third party shall be the cognizant Section Chief or his alternate designated in writing and he shall make the decision. His decision shall be recorded in an MRB report, a copy of which is forwarded to the Spacecraft Systems Manager.

As an alternate to the above procedure on out-of-house contracts, Specification 30274 can be utilized.

E. FAILURE REPORTING

Starting with performance testing of TA, PTM, Flight, and spare spacecraft equipment, failure reports shall be prepared by all divisions including their subcontractors and vendors on all failures immediately after the failure is recognized. Failure reporting on OSE may begin after delivery to SAF.

In the case of contractors, failure reports may be summarized monthly per Specification 30274 except in the case of Environmental FA and TA testing, where individual reports are to be submitted to JPL.

Quality Assurance shall identify a coordinator for all Project failure reporting and cognizant divisions shall see that all contractors monthly summaries and individual reports are forwarded to him.

On all failures, expeditious action must be taken accomplishing, verifying, and documenting corrections.

Failure report summaries shall be compiled at no less than monthly intervals by the Quality Assurance coordinator. The Q.A. Project Representative shall report on these summaries at the Project meetings.

Quality Assurance shall prepare and make an adequate stock of failure report forms available to all divisions. The forms shall be in two parts - 1st the details of the failure and 2nd, the follow-up action taken as a consequence of the failure. Cognizant Section Chief approval is required on the form to conclude the follow-up action. At JPL, when a failure occurs, the individual observing the failure shall make and distribute copies; one to the cognizant engineer, and one to the designated Q.A. coordinator, who will make appropriate destribution.

Upon concluding follow-up action, the cognizant engineer shall send a close-out copy to the Q.A. coordinator, who will make appropriate destribution.

F. CONTROLLED PARTS

Every component part except fasteners employed for TA, PTM, flight, or spare spacecraft hardware shall be screened by test and/or inspection. After the part passes the screening test it shall be identified by serial number or tagged so that parts which have not been screened will not be incorporated in spacecraft equipment. Once screened, the marks or tags will not be removed prior to assembly. Serializing is a goal - not a requirement on Mariner C.

All electronic parts used on the spacecraft shall be selected from the following three categories in decreasing order of preference, unless individual exceptions are permitted by waiver from the spacecraft Systems Manager.

(1) Hi-Rel rated parts, conforming to a 20,000 series detail specification.

(2) JPL preferred rated parts listed in Specification 20061. One hundred percent screened in accordance with Procurement Specification 30270, or with Series Test Specification 30237.

(3) Commercial grade parts screened in accordance with Specification 30237 and 30270 or equivalent as determined by the cognizant divisions in the event that Specification 20061 does not include sufficient types of parts to meet a division's requirement.

Assistance in these matters will be provided by the Component Parts Evaluation Group of Section 343 and Quality Assurance. Section 343 will provide timely reports on the status of parts used on the spacecraft to the Spacecraft System Manager based on the availability of Drawings and Parts Lists.

G. PROTECTION OF FLIGHT HARDWARE

Hardware-supplying sections shall be responsible for the exercise of proper caution during the fabrication, handling, storage, and shipping of flight hardware. These precautions shall include control of the ambient environment, provision of adequate storage containers, instruction of personnel in the moving of sensitive equipment, and compliance with the requirements for shipment to field installation.

SECTION V

SUBSYSTEM TESTING REQUIREMENTS

Each division shall be responsible for accomplishing testing of its equipment at the subsystem and Assembly[1] level and below. The project requirements shall be for environmental flight acceptance testing on all PTM flight, and spare spacecraft equipment and environmental type approval testing on one complete set of TA spacecraft equipment as a general rule at the Assembly level. All equipment must be made to pass these tests before it is considered acceptable for flight.

At the spacecraft system level the PTM tests shall be performed for qualification of the system design, analogous to the TA tests at Assembly level. The flight spacecraft system tests determine the flight acceptability of each spacecraft. It is the over-all responsibility of the Spacecraft System Manager to establish the criteria of acceptance for these two test programs.

A. GENERAL ENVIRONMENTAL SPECIFICATION

The Systems Division shall be responsible for establishing the general environmental requirements in the form of general specifications for type approval and flight acceptance testing. The divisions shall be expected to perform their testing in a manner that is consistent with the intent of these general environmental specifications and as is appropriate to each piece of hardware. For Mariner C, these specifications shall be Environmental Specification 30250B/30251B. This specification shall be under the ECR System by placement on the freeze list.

B. ENVIRONMENTAL TEST SPECIFICATIONS

See III-H-3-d.

[1]An "Assembly" is defined as the equipment configuration normally certified at SAF and normally carried as replaceable certified spares. See the Equipment List, III-F.

C. ENVIRONMENTAL TEST REPORTS

For each serial number of each equipment group subjected to Environmental TA and FA Tests, a test report is to be made on a Test Results Summary Form.

Test Results Summary Forms shall be prepared by the Environmental Requirements Project Representative in conjunction with the divisions to cover Environmental FA and TA testing. The Summary Form is intended to keep a single and accurate record of the tests performed. The summary form is to be completed by the hardware supplying division and supplied to the Environmental Requirements Project Representative immediately upon the passing of the tests. Included in the Test Results Summary Form will be the following items:

(1) Tests covered and completion dates. Reference Environmental Test Specification Numbers.

(2) Signature of the cognizant engineer or person supporting test from the division and signature of the Q.A. representative monitoring the test, if such exists.

(3) Environmental Lab's test report form number (a copy of the test report is to be submitted if testing is done off the Laboratory).

(4) List of all applicable failure reports.

(5) Serial numbers, reference designations and accumulated operating time.

The Environmental Requirements Group shall be required to collect and appraise these reports, monitor the testing progress and to prepare for submission to the Spacecraft System Manager a Project Test Results Manual based on this information.

Contractors performing FA or TA testing must naturally comply with environmental test reporting.

Test Report Summary Forms shall be available as inputs to the appropriate review boards.

D. ENVIRONMENTAL TYPE APPROVAL AND LIFE TESTING

Per the above Environmental Test Specifications, Environmental TA tests are to be conducted on a complete set of spacecraft equipment, over and above other design qualification tests the divisions may establish. After passing Environmental TA tests, the TA equipment shall be subjected to life-testing in an environment as equivalent to cruise environment as possible.

TA equipment should pass TA test prior to completion date shown on attached schedule.

E. ENVIRONMENTAL FLIGHT ACCEPTANCE TESTING

Per the above Environmental Test Specification, Environmental FA Tests are to be conducted on all PTM, flight, and spare spacecraft equipment over and above other acceptance tests the divisions may establish.

Such equipment is to pass FA tests prior to delivery to SAF.

F. SUBSYSTEM COMPATIBILITY TESTS

Compatibility tests design to demonstrate gross interface compatibility between subsystems, groups of subsystems, and OSE must be performed for all critical subsystem interfaces. The specific tests to be performed shall be recommended by the Spacecraft Project Engineer. The tests must be performed prior to delivery of PTM hardware to SAF and may be supported with breadboard prototype, TA or PTM hardware.

G. MAGNETIC CONTROL TESTS

With the assistance of the Division 32 Project Representative, the Environmental Requirements Project Representative shall prepare a magnetic control specification.

All TA, PTM, and flight and spare spacecraft equipment is to be examined for its magnetic quality against this specification at the facility provided and manned by Division 32, to ensure to the greatest possible extent meaningful magnetometer measurements.

SECTION VI

SPACECRAFT SYSTEM TEST AND OPERATIONS REQUIREMENTS

A. PROCEDURES AND CHECK SHEETS

Subsystem procedures shall be submitted to Section 314 Operations supervisor, by each division participating in spacecraft checkouts, prior to delivery of PTM equipment to SAF.

Thereafter revision of these documents shall be according to Section 314 requirements with the concurrence of the cognizant subsystem personnel.

Detailed over-all spacecraft and OSE operational procedures and instructions, including system checkout, environmental and compatibility testing, and storage and shipping requirements and procedures shall be prepared by System Test and Operation Section 314.

B. EQUIPMENT STATUS REPORTS

Section 314, with the assistance of Q.A. shall issue weekly status reports to the Project and Spacecraft System Managers starting with the first delivery requirements to SAF.

These status reports shall indicate deficiencies in equipment deliveries, or lack of equipment due to ECR or repair action.

C. PROOF TEST MODEL (PTM) QUALIFICATION AND LIFE TESTING

All equipment supplied for the PTM is to be flight equivalent as of delivery and is to have passed Environmental FA test, etc. The PTM is to be subjected to a series of design verification tests and a set of environmental tests to qualify the design. As an objective, the performance of subsystems when operated at the extremes of environmental and parameter tolerances shall be evaluated. The Spacecraft System Manager is to assure the establishment

of criteria for qualification of the spacecraft design in a PTM Qualification Test Specification for the Mariner C spacecraft. Upon passing of the qualification tests per attached schedule, the PTM is to be subjected to spacecraft system life-testing for a considerable length of time to be specified later. A Test Report shall be prepared at both the conclusion of the qualification tests and at the conclusion of the Life Test.

PTM equipment and spares in particular are to be maintained in such a condition that they could be used temporarily to support a flight spacecraft test operation, for example, when a flight assembly is out for rework.

D. FLIGHT QUALIFICATION TESTS OF SPACECRAFT

Each complete spacecraft, including solar panels, shall be readied for flight by passing a series of flight qualification tests including a set of environmental tests. The Spacecraft System Manager is to assure the establishment of criteria qualification of these articles for flight in a Spacecraft Flight - Qualification Test Specification.

A Test Report shall be prepared at the successful conclusion of the flight qualification tests which must occur prior to shipment to the range.

E. SPACECRAFT OPERATIONS

Spacecraft operations, as used here, include all spacecraft system activities starting with the spacecraft and OSE assembly at SAF and ending with spacecraft launching. During this period access to the spacecraft shall at all times be under the responsibility of the Test Director, Quality Assurance shall provide surveillance for this activity.

Conduct of all Spacecraft Operations shall be the responsibility of Section 314, with assistance from all participating divisions.

All hardware contributing divisions shall be required to support spacecraft operations involving the system testing of the PTM and Flight Spacecraft in terms of hardware, documentation and procedures, and operations and technical support personnel. This support will consist of operators plus a minimum of one full time JPL cognizant engineer for each division present during spacecraft operations. It should be noted that this project will require four complete teams of operators - See schedule. The System Division shall be responsible and given the authority for the coordination, planning, and direction of all such activities.

The following spacecraft tests shall be conducted at the Laboratory:

(1) Subsystem Tests

(2) OSE Calibration Tests

(3) Systems Tests

(4) Dummy Run Countdown

(5) Spacecraft Environmental Tests

(6) PTM - Failure Mode and Marginal Parameter Tests

(7) Joint Colsed Loop Operations Tests (J-CLOT)

(8) Match-mate Tests

(9) Foreign Particle Tests

(10) Magnetic Field and Radiation Control Tests

The following types of tests shall be conducted at AMR:

(1) Magnetic Field Tests

(2) OSE Calibration Tests

(3) System Tests

(4) Joint Flight Acceptance Composite Test (J-FACT)

(5) Combined R.F. Interference Test

(6) Precountdown

(7) Operational Checkout at Explosive Safe Area

The Systems Division shall be responsible for establishing, maintaining, and implementing the following documentation, the first issue and subsequent major revisions to be approved, where required, as noted:

(1) An Assembly and Operations Plan (AOP) - prepared by System Test and Operations Section 314, and approved by the Spacecraft System Manager.

(2) Appropriate documentation, recording and reporting systems covering all activities including a spacecraft log and failure reporting - prepared by System Test and Operation Section 314.

(3) Field Instructions Memorandum (FIM) - prepared by System Test and Operations Section 314, approved by Spacecraft System Manager

(4) Field Operations Memo (FOM) - prepared by Section 314.

(5) Criteria for shipment to AMR - prepared by Section 314, approved by Spacecraft System Manager.

(6) The Project Manager shall, at launch, hold the following persons accountable for reporting accurately the state of readiness for these equipment areas to launch:

(a) Spacecraft System Manager - Spacecraft Readiness

(b) Launch Vehicle System Manager - Launch Vehicle Readiness

(c) Space Flight Test Director - SFOF/DSIF

(d) Section 314 - AMR Operations Center Coordinator

F. SPACE FLIGHT OPERATIONS

Space flight operations are described as those activities necessary from launch of the spacecraft to completion of the mission. The objectives are obtaining and processing of spacecraft information and commands and evaluation of each flight. The tracking, communication, data processing, and computing facilities required in support of these activities become an integral part of these operations.

Each technical division must have the capability to supply technical representatives for each of their subsystems on a 24 hour basis throughout the entire space flight operations phase of the project.

The following documents are requirements for the successful integration of the operations:

(1) A Space Flight Operation Plan (SFOP) - prepared by Space Flight Test Director, approved by Project Manager.

(2) A J-CLOT Plan - prepared by Space Flight Operation Section 316, approved by Space Flight Test Director

(3) Space Flight Operations Memo (SFOM) - prepared by Space Flight Test Director, approved by Project Manager.

(4) An SFO Capabilities and Procedures (CAP).

The following documents relate to the DSIF activities:

(1) Tracking Instruction Memo (TIM) - prepared by Communication Engineering - Operations Section 332, for approval by Deputy Director of DSIF.

(2) Tracking Operations Memo (TOM) - prepared by Communication Engineering - Operations Section 332, for approval by Deputy Director of the DSIF.

G. OPERATIONS INTERFACE DOCUMENTS

To assure coordination between the various agencies involved in a mission, the following documents are required:

(1) LMSC/LeRC/JPL Interface Plan of Operation - Section 311 input.

(2) Operation Program Estimate (OPE) - prepared by System Test and Operations Section 314, for JPL inputs.

(3) Program Requirements Document (PRD) - prepared by System Test and Operations Section 314.

(4) Preliminary Countdown Manual (PCM) - prepared by LMSC with Division 31 supporting.

(5) Range Safety Report (RSR) - prepared by LMSC with Division 31.

(6) Pad Safety Report (PSR) - prepared by System Test and Operations Section 314.

(7) Flight Termination Report - prepared by LMSC with Division 31 inputs.

H. SPARES AND REPLACEMENT

Upon failure of a component in PTM, spares, flight equipment or OSE, (once deliveries have been made to SAF), the cognizant divisions shall make every effort to take the corrective action necessary and reestablish the full complement of equipment at SAF as quickly as possible.

Equipment redelivered to SAF must be recertified. It is the decision of the cognizant Section Chief as to the extent of requalification of the equipment for flight acceptance.

SECTION VII

PROCUREMENT REQUIREMENTS

A. PROCUREMENT INITIATION

The policies and requirements stated herein are required to extend to and apply to the equipment and services supplied to the project by off-Laboratory suppliers be they subcontractors or experimenters. Hardware will be subject to the same requirements for delivery to SAF as JPL produced equipment. All new contracts shall follow the procedures outlined in this EPD. All contracts already underway will be reviewed and amended where possible to be consistent with this EPD.

For each contract initiated by the divisions to purchase services and/or equipment for the Mariner C Project, a Procurement Requisition and a Statement of Work must be completed. The formal Statement of Work will be prepared by Division 62 in support of the initiating division and approved by the cognizant section on the basis of the following minimum check list.

The Statement of Work shall include the following:

(1) Schedule Requirements, over-all and detailed.

(2) Quantities and types required.

(3) Breakdown of cases into areas or phases where applicable.

(4) List of applicable drawings.

(5) Applicable control drawings.

(6) Drawing control requirements per JPL Specification 20030A.

(7) If design is to be done by contractor:

(a) JPL is to supply Design Specification and other applicable specifications and drawings (all of which may have been prepared on contract).

(b) JPL is to furnish reliability, Q.A., and test requirements. The Q.A. Specification and Drawing List for inspection is to be provided.

(c) Contractor is required to prepare a complete set of detail drawings and detail specifications adequate for performing fabrication.

(d) Contractor is to supply updated list of detail drawings and detail specifications at least once a month.

(e) State requirements for preparation of Environmental TA and FA test specifications to permit JPL review, if such is desired of contractor.

(f) Contractor must not make changes in violation of ECR system.

(8) If fabrication is to be done by contractor:

(a) Contractor is to be supplied with complete set of Detail Drawings, Control Drawings, and Detail Specifications and other applicable specifications (all of which may have been prepared on contract).

(b) Contractor is to supply updated list of detail drawings and specifications at least once a month.

(c) Provisions for Q.A., reliability and test requirements must be included in Statement of Work. Per Specification 30274.

(d) Contractor must be required to conform to controlled-parts requirements.

(e) Contractor must comply with JPL failure reporting system.

(f) Contractor must not make changes in violation of ECR system.

(9) If Environmental TA/FA testing is to be done by contractor:

(a) Contractor must be provided JPL-approved Environmental TA/FA test specification (all of which may have been prepared on contract).

(b) Contractor must conform to Q.A. monitoring.

(c) Contractor must comply with failure reporting system.

(d) Contractor must perform replacements only with controlled-parts.

(e) Contractor must prepare Test Reports.

(f) Contractor must not make changes in violation of ECR system.

(g) Contractor must own or have access to adequate test facilities. Division 37 shall be permitted to review this adequacy and make reports to Spacecraft System Manager and the cognizant Division.

(10) In all cases the Statement of Work is to state the procedure by which contractor shall report technical progress.

(11) Indicate all equipment and parts to be furnished by JPL.

(12) Shipping of all spacecraft hardware shall be in conformance with JPL Specification 20064A.

B. PROCUREMENT INSTRUCTIONS

For the purpose of preventing delays due to misunderstandings the Division 62 Project Representative shall provide in quantity to each division a set of instructions on the initiation of procurement action and procurement processes. These instructions should be presented in a clear and simple fashion and include a procurement cycle diagram. The responsibilities of the initiating Division and Division 62 should be clearly stated.

C. EXPERIMENTER CONTRACTS

JPL shall place all approved (nongovernment) experimenters on contract. For experimenters supplying no hardware, a limited Statement of Work which is common to all shall be initiated by Division 32. In the case of government experimenters the same Statement of Work shall be by agreement with their Center Directors.

For Experimenters who supply hardware, their Statement of Work shall include the limited one above, and all of the requirements of a subcontractor stated in VII A.

The limited statement of work shall cover the time from approval of the experimenters by NASA Headquarters to termination of the mission (about one month after encounter) plus five months.

The Statement of Work shall provide for:

(1) Costs for attending meetings called by members of the Mariner C Project for Mariner C Project purposes only.

(2) Costs for the Experimenter in correlating and interpreting flight data with statements as to where, how, and by whom this shall be done.

(3) Requirements for the Experimenter to submit to JPL bimonthly reports of his analysis throughout the period of the contract. JPL will ensure that such information is not released to the public except by the clear approval of the Experimenters submitting the report. A final report shall be submitted at conclusion of contract.

(4) Release of information to the public through the Project Office for NASA approval.

(5) At a mutually agreed upon time, information will be placed in the Public Domain.

SECTION VIII

PERSONNEL REQUIREMENTS

A. DIVISION REPRESENTATIVES

Division Project Representatives shall be supplied by Division 31, 32, 33, 34, 35, 37, 38, 62, and DSIF. The description of his responsibilities are as follows:

(1) Each of the technical divisions and the Procurement Division shall appoint at least one divisional Project Representative for the Mariner C Project. If more than one representative is appointed, their respective areas of responsibility shall be clearly defined. The divisional Project Representatives shall be senior, experienced individuals and shall be full time on one project. The divisional representatives shall be appointed at or prior to the time that the system design is first formulated (functional specifications prepared) and the appointments shall be subject to the approval of the Project Manager.

(2) The divisional Project Representative is responsible for:

(a) Being thoroughly familiar with the general aspects of his division's over-all plans for implementing their assigned part of the project requirements.

(b) Having rapid and direct access to all developed details of these plans.

(c) Being prepared to report on short notice of the state of development, and the specifics of these plans.

(d) Having a mechanism for understanding and accurately evaluating the status of the divisional activities on the project.

(e) Being prepared to report at specified occasions on the status of all divisional activities as compared to the plans.

(f) Reporting any actual or potential problems to appropriate project personnel in a timely fashion.

(g) Handling in an expeditious fashion all day-to-day project affairs that are within the scope of the established plans.

(h) Taking the initiative in promptly bringing together project personnel and the appropriate management personnel from his division at any time that the over-all plans should be reviewed or modified.

(i) Keeping the line management personnel in his division adequately informed of all aspects of the project to which he is assigned that are important to their properly carrying out their line responsibilities.

(j) Acting as a redundant check to ensure that his division's technical and scheduling interfaces are being met.

(3) Authorities. The division Project Representative has sufficient authority within his division to expeditiously conduct all project matters that are within the established divisional project plans. His degree of authority to modify these plans can be established by each division. However, the division is responsible for providing an understood and defined mechanism for expeditiously handling reviews and modifications of the established plans.

(4) Relationship to Project Manager and Spacecraft System Manager. All statements of fact, evaluation of status, opinions and decisions officially stated by the Project Representative to the Project Manager and Spacecraft System Manager must be and will be regarded as officially coming from his division and representing their official position. The Project Manager and Spacecraft System Manager have the right to consult officially with any members of the division but should do so in the presence of the Division Representative, if he so wishes. The Division Representative should, in response to specific direction or request from the Project Manager or Spacecraft System Manager, state directly whether he has the authority to proceed or must get the concurrence of line personnel in his division.

(5) Relationship to Division Line Management Personnel. The Division Project Representative must be provided a clear understanding as to his relationships and authorities relative to the line management. He must at least be provided with direct and adequate communication channels to see that all project matters are properly understood and are expeditiously handled. To handle the volume of activity associated with Project Requirements, Q.A. requirements, procurement, and all the aforementioned functions, each division must consider the degree of assistance to be provided to the Project Representative.

B. SPACECRAFT SYSTEM MANAGER

1. Applicability

A Spacecraft System Manager shall be appointed for each spacecraft project officially undertaken in-house by the Laboratory.

2. Organizational Location

The Spacecraft System Manager shall be administratively assigned to, and shall report to, the Chief of the Systems Division.

3. Responsibilities

The Spacecraft System Manager shall be responsible for:

(a) The quality and adequacy of the systems design of the spacecraft and its associated operational support equipment.

(b) The analytical performance and reliability evaluation of the systems design.

(c) The development of a complete systems testing plan for both test and flight spacecraft.

(d) The conduct and evaluation of these systems tests.

(e) The continuing maintenance of detailed schedules for the spacecraft and its associated ground support equipment that are compatible with the project requirements.

(f) The continuing maintenance of a reliability appraisal of the spacecraft based upon analysis, test, and failure experience.

(g) The recognition and resolution of all the interface factors between the spacecraft and its ground support equipment and the other systems of the project that directly effect the reliability or performance of the spacecraft.

(h) Controlling the total spacecraft design within established design control procedures.

(i) The committing to launch of the flight spacecraft.

(j) The providing of consulting services to the Project Manager regarding the spacecraft behavior during flight.

4. Authority

Within the mission objectives, design criteria, and other project guidelines established by the Project Manager, and within policies, procedures, and manpower and dollar resources assigned by the Chief of the Systems Division, the Spacecraft System Manager shall have full authority within the System Division to carry out the above-listed responsibilities for his assigned spacecraft and its associated OSE. He also has full authority over the systems design of the spacecraft and its associated OSE. Other specific authorities will be assigned in other appropriate documents.

5. Relationship to Project Manager

The Spacecraft System Manager's day-to-day directions on all matters relating to the project will come from the Project Manager. In addition to the above specific responsibilities, the Spacecraft System Manager shall advise the Project Manager on any and all matters concerning the spacecraft and its GSE at either party's initiative. Specifically, the Spacecraft System Manager should

immediately advise the Project Manager of any problem or potential problem that he (the Spacecraft System Manager) believes exists but is beyond his authority to control.

6. Relationship to the Chief of Systems Division

The Chief of the Systems Division extablishes the organization policies and procedures of the Systems Division and, after agreement with the Project Manager, allocates the manpower and assigned money's. These factors in general do not change rapidly, and the Spacecraft System Manager is expected to understand and work within them. The Spacecraft System Manager is expected to keep the Chief of the Systems Division generally informed of his activities and to recommend alteration in these policies, practices, or resource allocations whenever he feels such alterations would be of benefit to either his assigned spacecraft or the Systems Division Operations.

7. Relationship to the Technical Divisions Responsible for Supplying Spacecraft Equipment

The Spacecraft System Manager shall be provided complete and rapid access to all information pertinent to the spacecraft and its OSE. In conducting the spacecraft system design and evaluation, the Systems Division (and Space System Manager) should work with the variational characteristics of the subsystems as supplied by the responsible divisions after once ensuring that an adequate understanding exists as to the applicability and nature of these characteristics. The technical divisions are responsible for delivering to SAF certified, flight ready spacecraft equipment meeting the characteristics defined by the systems design and by the date established on the official schedules. The Spacecraft System Manager does have authority over the spacecraft system design and subsystem interfaces and therefore has the authority to modify the system design and subsystem interfaces and, the necessary affected characteristics of the subsystem provided no project-established requirements are violated. In cases of reasonable doubt as to whether or not a particular issue involves a system design or interface matter, the decision of the Spacecraft System Manager should apply unless the responsible division immediately

appeals to the Project Manager. The Spacecraft System Manager shall control the design of the spacecraft utilizing and within the ECR system. When spacecraft flight equipment and its associated OSE are first delivered to SAF, they come under the jurisdiction and authority of the Spacecraft System Manager as to its utilization.

C. SYSTEMS DIVISION REPRESENTATIVES

The Systems Division shall assign the following full-time representatives to the Mariner C Project and in their respective areas they shall conform to the responsibilities described in VIII A.

*1. Spacecraft Project Engineer

The Spacecraft Project Engineer is responsible for the design of the spacecraft and his duties and authorities are outlined throughout this document.

2. Program Engineer

The Program Engineer is responsible for the following:

(a) Coordinate a Systems Division position on Project-wide matters.

(b) Conduct the biweekly Project-Oriented meeting for the Project Manager.

(c) Conduct the biweekly Spacecraft-Oriented meeting for the Spacecraft System Manager.

(d) Conduct special Project-wide status meeting for the Project Manager.

(e) Verify for the Project and Spacecraft System Managers that methods have been established for actions as called out in this document and that action is proceeding at all times, particularly where those actions have been assigned to the Systems Division.

(f) Collect and advise improvements in Policy and Requirements Document.

*3. Operations Supervisor

*4. Environmental Requirements Manager

*5. OSE/Design Evaluation Engineer

6. SFO Test Director

7. Section 312 Respresentative

8. Launch Vehicle Representative

9. Launch Constraints Representative

D. Q. A. ORGANIZATION REPRESENTATIVE

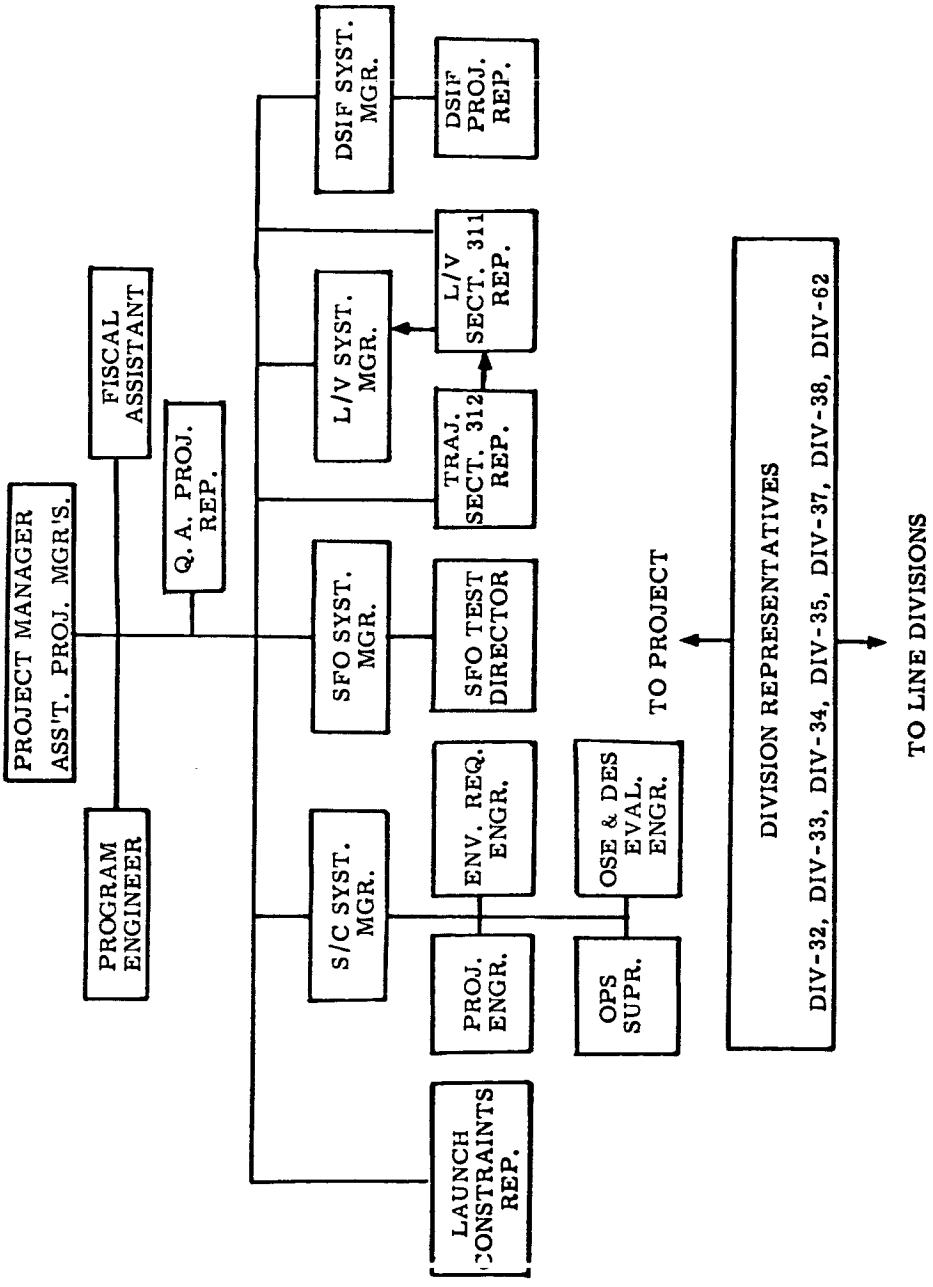
A full time representative shall be assigned to the Mariner C Project with duties as outlined throughout this document and appropriate Q. A. manuals.

E. PROCUREMENT REPRESENTATIVE

A full time Division 62 Representative shall be appointed whose duties are defined in Section VIII-B.

*All of these representatives primarily provide support to the Spacecraft System Manager.

C. PROJECT COORDINATION ORGANIZATION



SECTION IX

SCHEDULING REQUIREMENTS

A. PROJECT SCHEDULES

Project schedules shall be prepared and approved as shown on the following schedule list. Those indicated for maintenance of schedules are required to make progress reports at biweekly meetings.

These schedules are milestone schedules and certain milestones shall be designated on each schedule for reporting to NASA Headquarters.

B. SPACECRAFT EQUIPMENT FLOW PLANS

In order to carry out the development, fabrication, and delivery of the subsystem hardware, each Division, through its Division Representative, shall be required to prepare and monitor Equipment Flow Plans. These plans shall be integrated by the Program Engineering Section 315 into a spacecraft system PERT network, as described in Section IX-C of this document, in order to demonstrate to the Spacecraft System Manager that interdivisional interfaces are compatible, and to provide him with a composite report for planning, evaluation, and control of the spacecraft system.

A spacecraft Equipment Flow Plan is defined as a PERT-type display which integrates the events and activities illustrating the logical informational and schedule relationships in completing the design, development, fabrication, test, and delivery of spacecraft hardware. It indicates need dates for decisions, procedures, equipment, or facility availability, type approval tests, flight acceptance tests, and other related activities.

The Spacecraft Equipment Flow Plans shall be developed for all division spacecraft hardware delivered to SAF, and shall be prepared down to the level of detail, wherein each equipment portion is under one Division's cognizance.

SCHEDULE LIST - MARINER C PROJECT

SCHEDULE	APPROVED BY	MAINTAINED BY
I. Project Schedule	Project Mgr.	Asst. Project Mgr.
II. Project Schedules for Regular Reporting		
Spacecraft Schedule	S/C Syst. Mgr.	Coord. Prog. Engr.
OSE Design and Preparation Schedule	S/C Svst. Mgr.	OSE Proj. Rep.
Design Evaluation - SAF Assy and Ops	S/C Syst. Mgr.	OPS Rep.
P-70/71/72 Mission - SAF Assy and Ops	S/C Syst. Mgr.	OPS Rep.
P-70/71/72 Mission - AMR Ops*	S/C Syst. Mgr.	OPS Rep.
AMR Facilities	Sec. Chief - 314	OPS Rep.
Launch Vehicle Schedule*	Sec. Chief - 311	L.V. Proj. Rep.
Launch Pad Preparation and Utilization*	Sec. Chief - 311	L.V. Proj. Rep.
Project Interface Documentation*	Sec. Chief - 311	L.V. Proj. Rep.
Trajectory, AMR Instr., & Range Support	Sec. Chief - 312	Traj., AMR Support Rep.
DSIF Mod and Preparation	DSIF Syst. Mgr.	DSIF Proj. Rep.
Space Flight Operations Plan	SFO Syst. Mgr.	SFO Test Director
Major Contracts Schedule	Sec. Chief - 622	Procurement Proj. Rep.
III. Detailed Working Schedules		
LV/SC Integration*	Sec. Chief - 311	L.V. Proj. Rep.
Division 32, 33, 34, 35, 38 Flow Charts	S/C Syst. Mgrs.	Division Reps.

* In response to the JPL prepared project-version of these schedules, a version of each of these schedules is to be prepared by LMSC for LeRC. By negotiation the two versions are to be made compatible.

NOTE: All the above schedules will be coordinated by the Program Engineer. In this coordination, a common format will be maintained, status will be monitored, frequent issues will be made and the schedules will be examined for interconsistency by PERT techniques. The schedules will be subject to review at all times by the Project Office.

By indicating need dates for decisions, equipment or facility availability, etc., (representing interface points between Sections or Divisions) the flow plan provides a convenient device for identifying the necessary agreements with the affected Section or Divisions. Once an agreement has been reached it is required that the flow plan be initialed or signed by the individual responsible for the Section's or Division's commitment. With the Division Project Representative structure the Project Representative for the affected divisions will in most cases be the appropriate signature.

Flow plans to be prepared by each division will be determined by the Spacecraft System Manager on the basis of the Equipment List (III-F). Each of these plans should show as an end event, certification at SAF. It is required that there be such an event for each group of equipment assembled together for delivery to SAF.

Flow plans shall include at least the information shown below:

(1) In all areas, with certain obvious exceptions, show each serial number of equipment such as TA, spacecraft units 1, 2, 3, etc.

(2) The expected start and finish date of environmental flight acceptance testing and type approval testing. Indicate if the testing is to be performed at JPL or at a vendor.

(3) Indicate time periods during fabrication and testing when inprocess inspection is planned. Show whether the inspection is to take place at JPL or at a contractor. If inspection is to occur at a contractor, this information may be carried separately on Q. A. flow plans prepared by the contractor.

(4) Indicate when all special equipments are required and who is to supply these. For example, during flight acceptance testing are beater pans required? Heaters? Dummy weights? Special harnesses?

(5) Indicate the point in time where flight case harnesses and cases are required to meet the flight equipment.

(6) Indicate the date of the start of contract action and the date by which all procurements for the individual equipment must have contractual go-ahead.

(7) Indicate the date by which the equipment fabrication must be complete.

(8) Show delivery of equipment to JPL.

(9) Show performance testing other than FA/TA tests where appropriate.

(10) Show delivery to SAF.

(11) Show certification at SAF.

(12) Show where test specifications (TA/FA) are required in order to proceed with testing.

(13) If specific GSE or special test equipment is required, indicate the activity requiring the equipment and the need time.

(14) Show intersubsystem compatibility tests.

(15) Show compatibility tests with GSE.

(16) Any key interdivisional commitments or agreements mutually desired by the involved divisions.

The maintenance of all plans as representative of the true situation and the biweekly reporting to the Spacecraft System Manager of the Division's performance in relation to its flow plan shall be a project requirement.

C. PROJECT EVALUATION AND REVIEW

The Project Manager and the Director's Management Information Staff shall review the Project Schedules defined in IX-A and the Spacecraft Equipment Flow Plans defined in IX-B to:

(1) Select the most significant events and activities to be included in the Project Master Plan submitted to NASA Headquaters.

(2) Establish the PERT Network to be used in regular, recurring Project reporting to NASA Headquarters.

The Directors Management Information Staff shall as a result of preparing PERT Networks on the Project Schedules and equipment flow plans, advise the Project Manager of any areas of concern such as lack of critical events scheduled or inadequate time scheduled for certain activities.

The Information Staff shall receive all project schedule and status information. To get weekly reports on status, an Information Staff representative shall attend the Project and Spacecrafts Meetings.

SECTION X

MEETING REQUIREMENTS

A. WEEKLY MEETINGS

A Project Oriented meeting will be held on the alternate weeks of a Spacecraft Oriented meeting.

1. Project Meeting Attendance Required

   (a) Project Manager or Assistant Project Manager

   (b) Spacecraft System Manager

   (c) Program Engineer

   (d) SFO Test Director

   (e) OPS Supervisor

   (f) Section 312 Representative

   (g) Launch Vehicle Representative

   (h) Launch Constraints Representative

   (i) DSIF Representative

   (j) Technical Division Representatives - Attendance Desired

2. Spacecraft Meeting Attendance Required

   (a) Project Manager or Assistant Project Manager

   (b) Spacecraft System Manager

   (c) Program Engineer

   (d) Spacecraft Project Engineer

   (e) OSE/Design Evaluation Representative

   (f) Environmental Requirements Representative

(g) Operation Supervisor

(h) Q. A. Project Representative

(i) Division 32 Representative

(j) Division 33 Representative

(k) Division 34 Representative

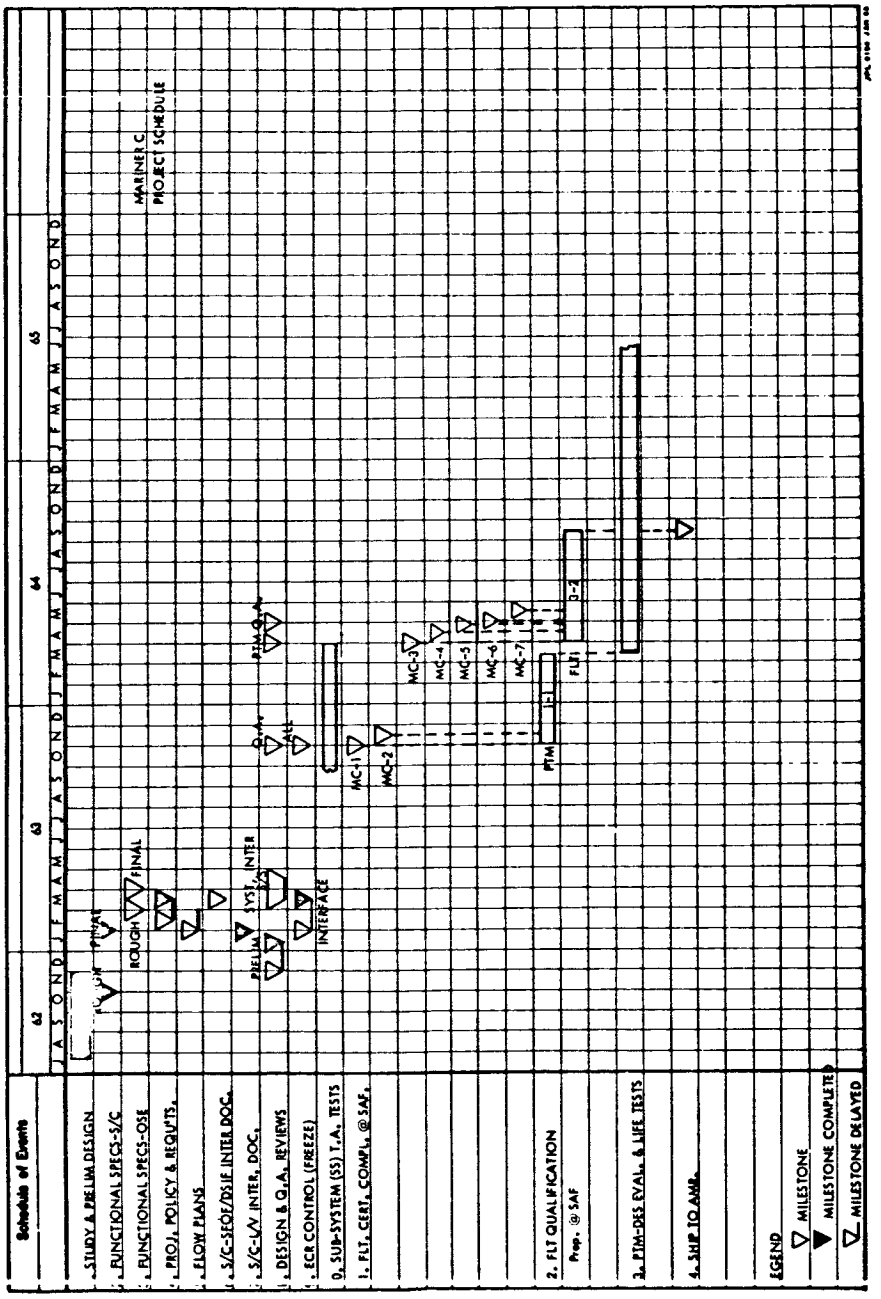
(l) Division 35 Representative

(m) Division 37 Representative

(n) Division 38 Representative

(o) Division 62 Representative

EPD-150 Attachment 1



A-1

II. *MARINER* C PROJECT POLICY AND REQUIREMENTS ADDENDUM 1. SPACE FLIGHT OPERATIONS

ENGINEERING PLANNING DOCUMENT

NO. 150

MARINER C

PROJECT POLICY AND REQUIREMENTS

ADDENDUM 1

SPACE FLIGHT OPERATIONS

EPD-150 22 November 1963

Approved:

J. N. James
Manager, Mariner C Project

22 November 1963
JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA, CALIFORNIA

Copyright © 1964
Jet Propulsion Laboratory
California Institute of Technology

Prepared Under Contract No. NAS 7-100
National Aeronautics & Space Administration

MARINER C DISTRIBUTION LIST

Acord, J. D.
Adams, J. L.
Adye, P. A.
Allen, J. D.
Anderson, H. R.
Apel, W. C.
Appleton, D.
Bachman, W. E.
Baker, G. F.
Balluff, R. L.
Barlow, R. A.
Barth, C. A.
Bayley, W. H.
Benedict, A. G.
Benjamin, W. W.
Berdahl, M. C.
Bilbo, T. S.
Boepple, W. A.
Boreham, J. F.
Bouvier, H. K.
Breckenridge, W. G.
Briglio, A.
Brocksieper, F. W.
Bronstein, L. M.
Bryden, J. N.
Burke, A. T.
Burks, S. J.
Candee, T. W.
Carroll, W. F.
Casabianca, C.
Casani, J. R.
Chow, E. Y.
Christy, J. R.
Clarke, V. C.
Cleven, G. C.
Cocca, T. A.
Collier, W. A.
Collins, E. R.
Collins, J. A.
Connor, B. V.
Conover, W. L.
Conrad, A. G.
Cotrill, H. E.
Coyle, G. G.
Cramer, P. W.
Curl, F. G.
Curry, K. C.
Curtis, H. A.
Cutting, E.
Dahlgren, J. B.
Davis, E. S.
Dawson, K. M.
Despain, L. G.
Donlin, T. J.
Douglas, D. W.
Downhower, W. J.
Draper, R. F.
Dufresne, J. A.
Dumas, L. N.
Earle, W. G.
Earnest, J. E.
Ebbett, R. F.
Egebjerg, G.
Elliot, L. E.
Ervin, G. F.
Fairfield, F.
Fawcett, W. G.
Felberg, F. H.
Fields, C. H.
Floyd, E. L.
Forney, R. G.
Frankenstein, L. S.
Frederickson, C. D.
Freeman, R. F.
Gabel, W. E.
Garba, J. A.
Gates, C. R.
Gayman, W. H.
Giberson, W. E.
Goddard, F. E.
Goldfine, M. T.
Goldsmith, J. V.
Goldsmith, P.
Gordon, H. J.
Graham, R. A.
Gram, M. B.
Greenberg, E.
Gunther, F. C.
Haddock, G. W.
Haglund, H. H.
Hall, J. R.
Hamilton, T. W.
Hand, P. J.
Hansen, G. R.
Happe, R. A.
Harker, R. B.
Harrington, T. M.
Hartung, H. C.
Hasbrouck, J. S.
Hayes, D. E.
Haynes, N. R.
Heacock, R. L.
Heftman, K.
Hentosz, G.
Herman, N. H.
Herriman, A. G.
Hess, D. S.
Holbeck, H. J.
Holman, R. J.
Holmes, J. P.
Holmes, W. M.
Hoover, W. R.
House, F. L.
Howard, W. R.
Ivie, E. S.
James, J. N.
Jodele, J.
Johnson, J. D.
Johnson, M. S.
Johnson, N. E.
Josias, C. S.
Koch, E. F.
Koerner, T. W.
Koukol, J. F.
Kuchek, R. J.
Kurutz, M. V.
Lansford, J. J.
Larsen, V. C.
Lawrence, J. L.
Layman, W. E.
Lear, T. C.
Levoe, C. E.
Levy, H. N.
Lewis, D. W.
Lingon, U. S.
Linnes, K. W.
Lockyear, W. H.
Long, H. P.
Long, W. L.
Lowe, A. R.
Lyman, P.
Maclay, J. E.
Margetts, D. R.
Margraf, H. J.
Martz, E. P.
Mathison, R. P.
McClure, J. P.
McCreary, R. A.
McGee, J. F.
McMillan, E. S.

MARINER C DISTRIBUTION LIST (CONT'D)

Meghreblian, R. V.
Meisenholder, G. W.
Meyer, D. D.
Miles, R. F.
Miller, D. C.
Moore, M. L.
Moore, R. L.
Morris, B. T.
Morris, R. V.
Mroz, G. J.
Nalbandian, A. J.
Nathan, R.
Nay, D. L.
Neilson, R. A.
Norman, R. M.
Norris, D. D.
Null, G.
Ofer, J. T.
Ohanesian, M. V.
Pace, R. E.
Parker, L. G.
Parker, T. H.
Parks, R. J.
Paul, F. A.
Peoretti, C. D.
Perkins, G. S.
Petralia, J. F.
Pfeiffer, C. G.
Phillips, H. B.
Pickering, W. H.
Pierce, W. B.
Powell, W.
Purcell, E. J.
Raggio, C. W.
Randall, J. C.
Rechtin, E.
Reuyl, J. S.
Rieder, R. A.
Robillard, G.
Rose, R. F.
Ross, D. L.
Savino, J. L.
Schimandle, W. J.
Schmidt, L. F.
Schmitz, B. W.
Schmuecker, J. D.
Schneider, W.
Schneiderman, D.
Schofield, D. K.
Schofield, S. R.
Schurmeier, H. M.
Schutz, F. L.
Scott, W. F.
Scull, J. R.
Shaffer, J.
Shaw, D. E.
Sheldon, E. L.
Shipley, W. S.
Shubert, W. K.
Slaughter, D. W.
Sloan, R. K.
Small, J. G.
Smith, A. H.
Smith, E. J.
Snyder, C. W.
South, J. F.
Sparks, B.
Sparks, D. B.
Spaulding, J. Q.
Spear, A. J.
Spehalski, R. J.
Spencer, R. L.
Stallkamp, J. A.
Stavros, G. N.
Steinbrook, P. H.
Stewart, H. J.
Stokeley, R. G.
Stott, R.
Sutherland, K.
Sweetnam, G. E.
Szirmay, S.
Thiele, C. L.
Thomas, D. R.
Thompson, G. R.
Toth, L. R.
Trask, D. W.
Trester, W. M.
Trostle, H. G.
Uchiyama, A.
Victor, W. K.
Virzi, R. A.
Voelker, G. J.
Wedel, J. J.
Weiner, R.
White, L. T.
Whitlock, W.
Wilson, J. N.
Wong, R. Y.
Woods, W. R.
Wuest, W. S.

TABLE OF CONTENTS

		Page
I.	PURPOSE OF THE DOCUMENT ADDENDUM	I-1
II.	SPACE FLIGHT OPERATIONS REQUIREMENTS	II-1
A.	General	II-1
B.	Organization and Responsibilities	II-1
1.	Space Flight Operations System Manager	II-1
2.	Space Flight Operations Director	II-4
3.	DSIF Operations	II-5
4.	SFOF Operations	II-5
5.	Technical Analysis Groups	II-6
C.	SFO System Design and Checkout	II-6
1.	SFO System Design Team	II-7
2.	SFO System Design Characteristics	II-7
3.	Space Flight Operations Plan (SFOP) Development	II-8
4.	SFO System Checkout	II-8
D.	SFO Support	II-9
E.	Documentation	II-10
1.	DSIF/SFOF Capabilities	II-10
2.	SFO System Design Specifications	II-10
3.	Spacecraft/SFO Interface Document	II-10
4.	DSIF/SFOF Project Support Document	II-10
5.	Space Flight Operations Plan (SFOP)	II-10
6.	SFO Test Plan	II-12
7.	SFOF Standard Operating Procedures	II-12

TABLE OF CONTENTS (CONT'D)

			Page
	8.	DSIF Tracking Instruction Manual (TIM)	II-12
	9.	Space Flight Operations Memorandum (SFOM)	II-12
	10.	SFOF Operations Memorandum	II-12
	11.	DSIF Tracking Operations Memorandum (TOM)	II-12
	12.	Analysis Group Procedures	II-12
F.	Scheduling and Control Procedures		II-13
	1.	Mariner C SFO System Schedule	II-13
	2.	Mariner C Operational Program Schedule	II-13
	3.	SFO System Design Specifications	II-13
	4.	The Space Flight Operations Plan (SFOP)	II-13
	5.	Procedures for Controlling Operational Computer Programs	II-13
	6.	Procedures for Controlling Nonoperational Computer Programs	II-15

LIST OF FIGURES

Figure		Page
1	SFO Prelaunch Planning and Design Organization	II-2
2	Space Flight Operations Operational Organization	II-3
3	Mariner C SFO Documentation Plan	II-11

SECTION I

PURPOSE OF THE DOCUMENT ADDENDUM

The purpose of this addendum is to establish policy and to place requirements on the appropriate JPL Divisions for support of the Space Flight Operations (SFO) for Mariner C. It should be the intent of all Divisions to meet all requirements listed herewith and in the approved project schedules or in any approved revision to these documents, without exception, unless specifically waived by the Project Manager.

This document specifically replaces Sections II, C, paragraph e, and VI, F of EPD-150, and supersedes and amends all references to Space Flight Operations in EPD-150, that are not in agreement with this addendum.

SECTION II

SPACE FLIGHT OPERATIONS REQUIREMENTS

A. GENERAL

Space flight operations are defined to be the operations necessary for the obtaining and processing of spacecraft information and commands during the portion of the flight from launch to accomplishment of the mission. The tracking, communication, data processing and computing facilities required in support of these activities become an integral part of these operations. The Space Flight Operations Complex (SFOC) is defined as the Earth-based mission-independent facilities and personnel of the AMR, the DSIF, and of the SFOF required for the space flight operations. The SFOC, with the addition of the Mariner-C-oriented personnel, equipment, and procedures, is defined as the Mariner C Space Flight Operations System.

B. ORGANIZATION AND RESPONSIBILITIES

The organization required to establish the design of space flight operations, and to execute the procedures required for space flight operations is described below and charted in Figures 1 and 2.

1. Space Flight Operations System Manager

The SFO System Manager shall have overall responsibility for the Mariner C SFO System. He shall be administratively assigned to the Systems Division and shall report to the Project Manager on matters concerning the SFO System.

The responsibilities of the SFO System Manager are to:

a. Develop, monitor, and control the SFO schedule.

b. Advise the Project Office about procurements of project-oriented equipment for the SFO System, and to provide functional requirements for space flight operations that may be used by the technical divisions for estimating personnel requirements.

c. Determine, evaluate, and resolve, jointly with the appropriate managers, the interfaces between the SFO System and the spacecraft, and between elements within the SFO System.

d. Control of the SFO System design.

e. Negotiate requirements on the facilities within the SFO System for the support of space flight operations.

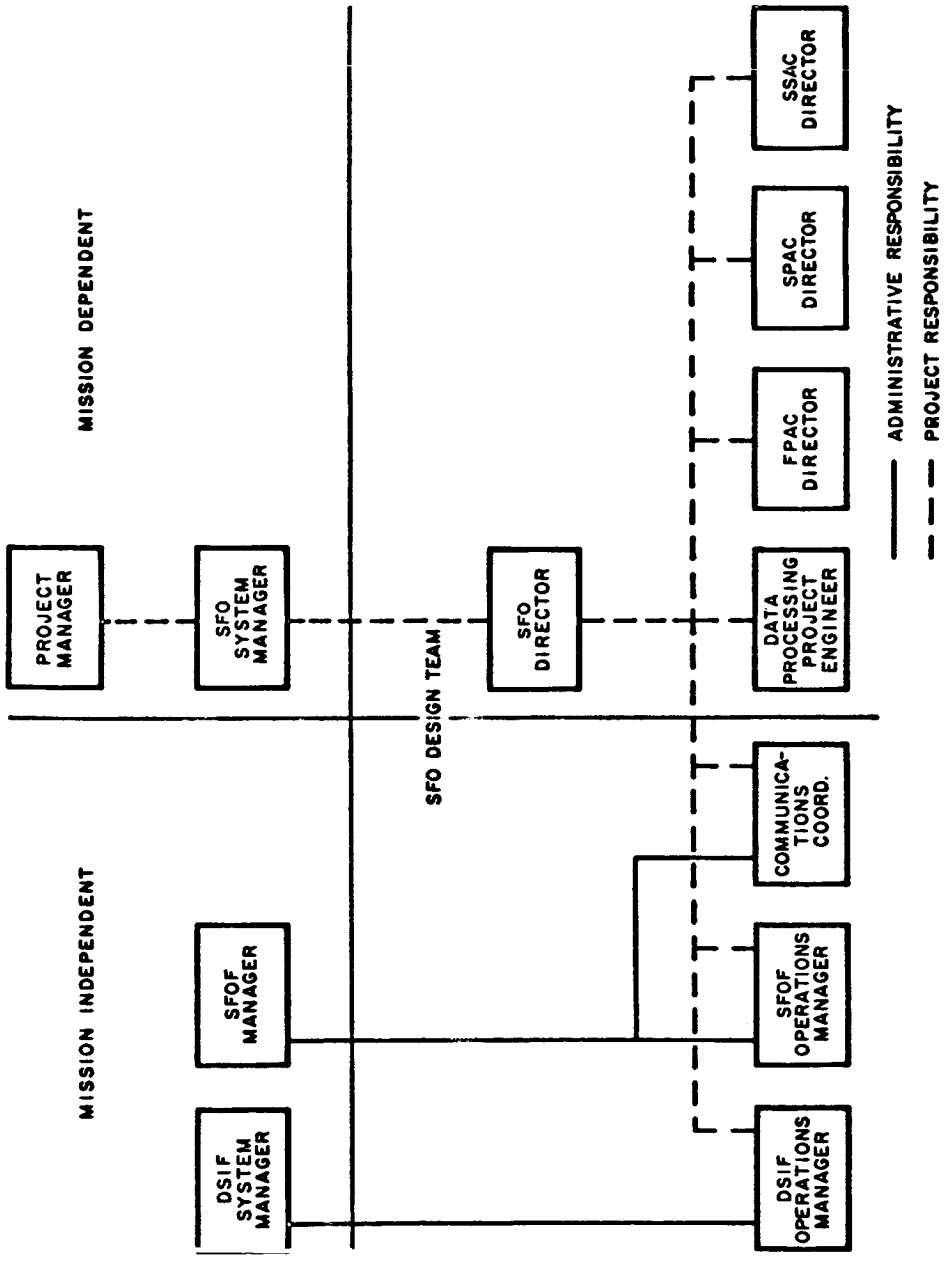


FIGURE 1. SFO PRELAUNCH PLANNING AND DESIGN ORGANIZATION

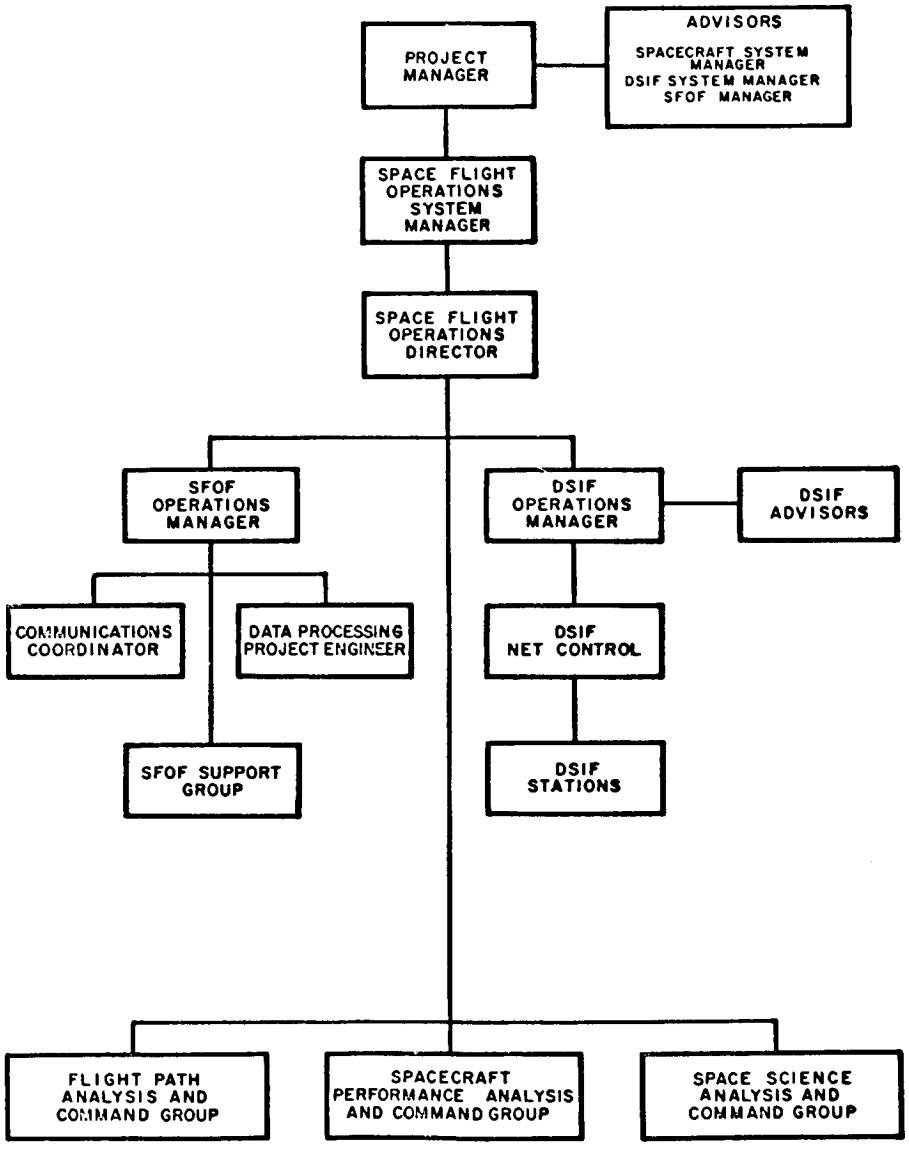


FIGURE 2. SPACE FLIGHT OPERATIONS OPERATIONAL ORGANIZATION

II-3

f. Provide information to the Project Manager regarding the behavior of the SFO System during space flight operations.

g. Coordinate and negotiate additional requirements which may be determined during the execution of the space flight operations.

The SFO System Manager shall work with the Spacecraft System Manager, the DSIF System Manager, and the SFOF Manager in the resolution of interfaces, the placement of requirements, and in the negotiation of commitments so as to ensure the technical feasibility of the SFO System and its compatibility with the spacecraft during the design phase and to ensure the proper mission support during the execution of the space flight operation.

2. Space Flight Operations Director

The responsibilities of the SFO Director, from launch to the end of the mission, are to:

a. Interpret the standard operating procedure and place requirements consistent with the Space Flight Operations Plan on the various operating groups.

b. Resolve any ambiguities directly associated with the standard operating procedure arising during its execution.

c. Make appropriate decisions and initiate the required action to assure success of the mission. The Project Manager or duly authorized delegate is expected to review these decisions and, when possible, be in agreement prior to any command transmission.

d. Control and direct the operations.

e. Ensure the operational readiness of the SFO System and commit the SFO System to launch.

In the fulfillment of the above responsibilities, the SFO Director is accountable to the SFO System Manager; however, direct communication with the Project Manager must be available at all times, and in many situations, especially those involving commands for nonstandard spacecraft behavior, the SFO Director shall communicate directly with and receive instructions from the Project Manager. The SFO Director is delegated authority of the Project Manager for placement of requirements on operating groups in accordance with the Mariner C SFOP, EPD-122. Additionally, the SFO Director is accountable to the SFO System Manager for the proper utilization of the SFO System. He shall keep the SFO System Manager informed of the System status and of any additional System requirements.

3. DSIF Operations

a. DSIF Operations Manager

It is the responsibility of the DSIF Operations Manager to direct the operation of the DSIF and to control the DSIF equipment and personnel at each DSIF station during the preparation and execution of each flight operation.

1) DSIF Operations Planning and Net Control

It is the function of this group to plan the operation, as committed by the DSIF System Manager, to prepare the TIM, and to ascertain that the DSIF is operationally ready to support the mission. Net Control shall direct the stations as specified by the DSIF Operations Manager and shall serve as the control point for all messages to and from the DSIF stations.

2) DSIF Advisors

It is the function of this group to serve in an advisory capacity to the DSIF Operations Manager and to Net Control in the determination of standard performance of the DSIF and to assist in the establishment of new procedures for nonstandard conditions in the DSIF.

4. SFOF Operations

a. SFOF Operations Manager

It is the responsibility of the SFOF Operations Manager to direct the operation of the SFOF during space flight operations and to commit and control all functions in the SFOF during the preparation and execution of each flight operation.

1) Data Processing Project Engineer

It is the responsibility of the Data Processing Project Engineer to commit and control the data processing operations and personnel during the preparation and execution of each flight operation.

2) Communications Coordinator

It is the responsibility of the Communications Coordinator to commit and control the operational communications equipment and personnel within the SFOF and the Ground Communications Network within the SFOC during the preparation and execution of the space flight operations.

3) Space Flight Operations Facility (SFOF) Support

It is the responsibility of the SFOF Support Group to provide for information dissemination and recording, to log and distribute data, to maintain a personnel access list, and to provide other general support as required for the operations.

5. Technical Analysis Groups

It is the responsibility of the following groups to assist in the definition of the standard mission, to recommend courses of action during nonstandard missions that will optimize the value of the mission, and to perform the intra- and intergroup technical liaison required to achieve these objectives.

a. Flight Path Analysis and Command Group (FPAC)

It is the responsibility of this group to use the tracking and pertinent telemetry data to obtain the best estimate of the actual trajectory of the spacecraft and, supported by the DSIF, to interpret the tracking data supplied by the tracking stations. Additionally, it is the responsibility of this group to generate the spacecraft commands affecting the flight path utilizing, to the degree required, the support of the Spacecraft Performance Analysis and Command group and the Space Science Analysis and Command group.

b. Spacecraft Performance Analysis and Command Group (SPAC)

It is the responsibility of this group to determine the spacecraft performance and to recommend spacecraft commands as determined by the engineering behavior and performance of the spacecraft required for mission success.

c. Space Science Analysis and Command Group (SSAC)

This group has a threefold responsibility: 1) to represent the experimenters in the operation; 2) to examine and to analyze, to the extent necessary, the data from the spacecraft scientific instruments and from any other sources in order to inform the SFO Director of the status of the scientific instruments and to recommend appropriate action to improve the scientific worth of the mission; and 3) to control the flow of and the mathematical operations performed on the data pertinent to the scientific experiments during the interval between the data acquisition and transmission to the appropriate scientists.

C. SFO SYSTEM DESIGN AND CHECKOUT

SFO System design includes all functions within the SFO System, and the operating procedures by which these functions are executed.

1. SFO System Design Team

An SFO System Design Team shall be organized for the formulation of the SFO System design, and for the plans, procedures, and tests required in the preparation and execution of the flight. The SFO Director shall coordinate and be accountable to the SFO System Manager for the activities of this design team. The SFO System Design Team shall consist of the following representatives:

a) DSIF Operations Manager

b) SFOF Operations Manager

c) Data Processing Project Engineer

d) Communications Coordinator

e) Flight Path Analysis and Command Director

f) Spacecraft Performance Analysis and Command Director

g) Space Science Analysis and Command Director

It is the responsibility of the SFO Director to coordinate and integrate the requirements established by the SFO System Design Team into the SFO System and into the operating procedures to be followed during the flight phase. The SFO Director is empowered to request information and to resolve conflicting requirements within the authority of the project as required to fulfill this responsibility. The members of the Design Team shall place requirements on the SFO System design, and shall make commitments to the SFO System for the groups which they represent.

2. SFO System Design Characteristics

The SFO System is made up of the operational groups required to direct the Mariner C flight, the tracking net (DSIF) required to acquire data from the spacecraft and its trajectory, the required communications, the data processing and computing facilities required to support the operation, the programs required for the computers, and the plans and procedures for carrying out the space flight operations. The characteristics of the SFO System are given in the following paragraphs.

a. The System shall be capable of determining the trajectory and of performing necessary corrections to the trajectory.

b. The System shall be capable of receiving, recording, and interpreting telemetry data continuously for the duration of the flight, so as to monitor the spacecraft performance, detect any alarm conditions, and perform any necessary command functions.

c. The System shall be capable of describing spacecraft position and science sensor orientation in a variety of coordinate systems. At Mars, in particular, a variety of geometrical relationships between the instrument sensors and the planet must be generated.

d. The facilities and equipment of the SFOF shall be used.

e. A minimum of one DSIF station in each of the following locations shall be used: Goldstone, Australia, and South Africa or Europe. Additionally, the 100 kw transmitter station at Goldstone shall be used.

f. The three prime DSIF stations providing mission coverage shall have two-way tracking and command capability. Each prime station shall have the capability of receiving the RF signals from two spacecraft simultaneously while transmitting to one of the spacecraft.

g. Sufficient communications shall exist between JPL and the DSIF to obtain, simultaneously, telemetry from two spacecraft, and tracking data from one spacecraft, from each of the prime DSIF stations.

h. Sufficient data processing facilities and programs shall exist to perform the functions of spacecraft monitoring, trajectory determination and possible trajectory corrections, and spacecraft and scientific data analysis.

3. Space Flight Operations Plan (SFOP) Development

The procedures for the conduct of standard space flight operations shall be developed in the Space Flight Operations Plan (SFOP). The policy and/or procedure for nonstandard space flight operations will be presented in the SFOP. A standard space flight operation is defined by the following characteristics:

a) Normal operation of the launch vehicle

b) Normal operation of the spacecraft

c) Normal operation of the SFO System

d) Injection of the spacecraft into a nominal space trajectory requiring no trajectory correction

e) No ground-transmitted commands to the spacecraft are required

4. SFO System Checkout

The checkout of the space flight operations shall include the tests required to bring the SFO System to operational readiness, and the criteria

required to determine the SFO System readiness. A series of Spacecraft Operations Compatibility Tests and Operational Tests, as defined below, will be performed. The two series of tests established are designed to demonstrate the compatibility between a spacecraft and the SFO System, and to demonstrate the operational readiness of the SFO System.

a. Spacecraft Operations Compatibility Tests

A series of Spacecraft Operations Compatibility Tests will be conducted prior to launch and before the spacecraft is shipped to AMR. Magnetic tapes and/or on-line data from flight spacecraft will be utilized to simulate standard operations for these tests. Additionally, the prototype spacecraft or magnetic tapes of data thereof will be utilized to simulate nonstandard conditions. The primary objective of these tests is to ensure that the ground-based facilities are compatible with the spacecraft; are capable of processing telemetry received from the spacecraft; and are capable of transmitting commands to the spacecraft.

b. Operational Tests

A series of operational tests will be conducted prior to launch. These tests will not involve the flight spacecraft or the proof test model (PTM). The primary objective of these tests is to ensure that all elements of the SFO System including technical and operational personnel, are prepared to support the spacecraft after launch. Criteria shall be established for the evaluation of the tests conducted. The satisfaction of these criteria shall prove the readiness of the SFO System to support the mission.

D. SFO SUPPORT

The SFO for Mariner C will require the support of the technical divisions, the SFOF, and the DSIF, as specified in the following paragraphs:

1) Each technical division must have the capability to supply technical representatives for each of their subsystems on a 24-hour-per-day basis for critical and emergency periods during the entire space flight operations phase of the project. Technical division representatives will be required for a minimum of 20 hours per week during normal cruise mode operations. Additionally, the technical division must support the SFO Test Phase in the same manner as the actual flight operations. Their representation shall be listed in the SFOP and in the SFO Test Plan.

2) The SFOF shall supply 24-hour-per-day operational coverage to the mission.

3) The DSIF shall supply 24-station-hours-per-day tracking coverage from three prime stations. Additionally, two-way and command

backup coverage shall be supplied by the 100 kw transmitter station, beginning three and one-half months prior to encounter.

4) Communications with the prime DSIF stations from the SFOF is required on a 24-hour-per-day basis for the duration of the mission.

E. DOCUMENTATION

The documentation plan for Mariner C SFO is shown in Figure 3. These documents shall accomplish the following purposes:

1. DSIF/SFOF Capabilities

This document shall describe the capabilities that the DSIF and SFOF can provide to the Mariner C project. These capabilities will be used as an input to the design of the SFO System. This document shall be the responsibility of the SFO System Manager and shall be approved by the DSIF System Manager and the SFOF Manager.

2. SFO System Design Specifications

This document will provide the single source of information concerning the functional descriptions of the operational groups, the facilities, and the computer programs required for the support of SFO. It shall provide a basis for designing the SFO procedures, and a method for controlling interfaces and changes of functions. This document shall be the responsibility of the SFO System Manager.

3. Spacecraft/SFO Interface Document

This document shall define and control the interfaces between the spacecraft and space flight operations. Interface requirements shall be placed on the spacecraft and on space flight operations by this document. Preparation of this document shall be the joint responsibility of the Spacecraft System and the SFO System Managers.

4. DSIF/SFOF Project Support Document

This document shall define, in detail, the interfaces between the DSIF/SFOF and the project, including facility configurations for the various phases of the operations. This document shall be prepared by the DSIF and SFOF Operations Managers and approved by the SFO Director.

5. Space Flight Operations Plan (SFOP)

This document shall describe how the space flight operations will be conducted in the standard and nonstandard case. It shall also be the document for committing support to the SFO for Mariner C when signed by the appropriate facility managers. This document shall be the responsibility of the SFO Director and will be approved by the SFO System Manager. It shall become the governing operational document when signed by the Project Manager. All subsequent documents must conform to the SFOP.

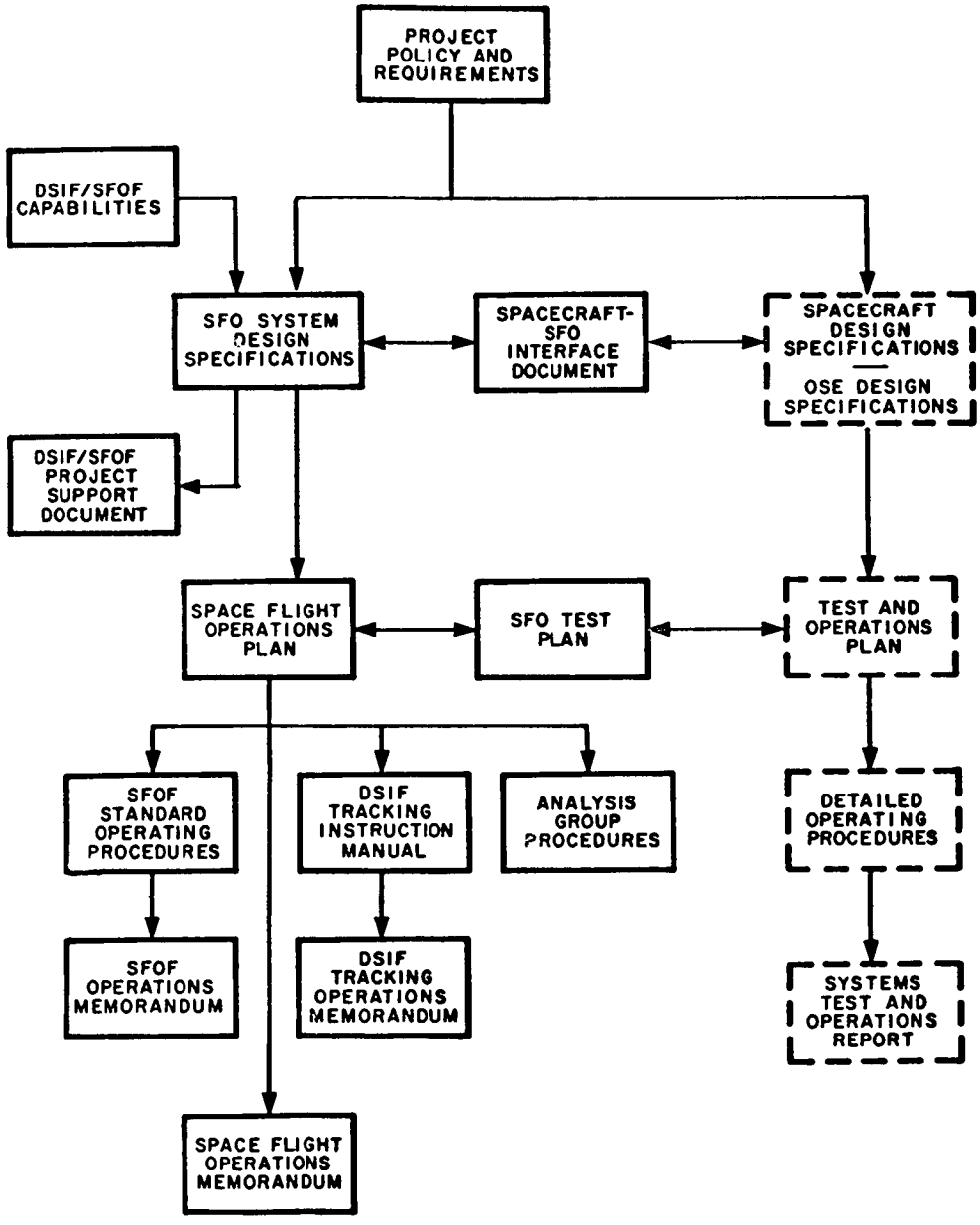


FIGURE 3. MARINER C SFO DOCUMENTATION PLAN

II-11

6. SFO Test Plan

This document shall describe the compatibility and operational tests required to bring the SFO System to operational readiness, and the criteria required to determine the readiness of the SFO System for support of the mission. This document shall be the responsibility of the SFO Director and shall be reviewed and approved by the Spacecraft Systems Manager, the DSIF System Manager, the SFOF Manager, and the SFO System Manager for consistency in schedules and operational integrity.

7. SFOF Standard Operating Procedures

This document will describe, in detail, the procedures by which the SFOF will be used in support of the mission. This document shall be the responsibility of the SFOF Operations Manager and shall be approved by the SFOF Manager.

8. DSIF Tracking Instruction Manual (TIM)

This document shall describe the procedures used by the DSIF in support of the mission. This document shall be the responsibility of the DSIF Operations Manager and shall be approved by the DSIF System Manager.

9. Space Flight Operations Memorandum (SFOM)

This document shall be the final reporting document of space flight operations and should describe the participation of all elements of the SFO. The SFO Director shall be responsible for preparing this document. It will be prepared within 30 days after mission completion.

10. SFOF Operations Memorandum

This document shall report the detailed participation of the SFOF in the space flight operation. It will be prepared by the SFOF Operations Manager within 30 days after mission completion.

11. DSIF Tracking Operations Memorandum (TOM)

This document shall report the detailed participation of the DSIF in the SFO. It will be prepared within 30 days after mission completion and will be the responsibility of the DSIF Operations Manager.

12. Analysis Group Procedures

These procedures shall describe the steps which the analysis groups will utilize to accomplish the requirements contained in the SFOP. They shall be prepared by the pertinent analysis group and approved by the appropriate technical area director.

F. SCHEDULING AND CONTROL PROCEDURES

1. Mariner C SFO System Schedule

A Mariner C SFO System schedule shall be established and maintained by the SFO System Manager. This schedule shall be the detailed controlling schedule for the Mariner C SFO. The schedule should show documentation, major procurements, equipment readiness, tests, and those facilities required for the mission. All detailed schedules shall be keyed to this master schedule.

2. Mariner C Operational Program Schedule

The Mariner C Data Processing Project Engineer will maintain an Operational Program Schedule showing the computer programs required for the real time SFO associated with Mariner C. The Operational Program Schedule shall be approved by the SFO Director.

3. SFO System Design Specifications

The SFO System Design Specifications shall provide a control for the functions within the SFO. A change control procedure will be initiated similar to that controlling spacecraft design changes. This change control procedure will control changes in the functional aspects of the system rather than detailed changes. The control shall exist in all areas of the system design. No special form for requesting changes will be used; however, the request should be in writing and include sufficient engineering justification supporting the request for change. The request shall be reviewed by the cognizant Operations Managers and/or Analysis Group Directors and must be approved by the SFO Director prior to implementation, and may be approved by the originating technical division or section if desired.

4. The Space Flight Operations Plan (SFOP)

The Space Flight Operations Plan shall control the procedures of the SFO. Nonstandard operating procedures will be included.

5. Procedures for Controlling Operational Computer Programs

The operational computer programs shall be controlled by the following procedures:

a) A "List of User Routines" will be generated by the Data Processing Project Engineer and approved by the SFO Director, using a statement of the program function obtained from each user or Computer Program Cognizant Engineer.

b) The "List of User Routines" will then be utilized by the Data Processing Project Engineer, the Operations Managers, and the Analysis Group Directors to establish a computer program milestone schedule for approval by the SFO Director.

c) A functional specification for each computer program will be prepared by the Computer Program Cognizant Engineer, and submitted via his Operations Manager or Analysis Group Director, to the SFO Director for approval and inclusion in the SFO System Design Specifications document. Publication of these specifications signifies a freeze of the functional definition of the computer programs.

d) Subsequent to the functional specification approval, the Computer Program Cognizant Engineer will prepare a Request For Programming and submit, via the Operations Manager or Analysis Group Director, duplicate copies to the Data Processing Project Engineer and the SFO Director. Approval of the SFO Director is required for conformance to the scope of effort indicated by the "List of User Routines". A group Request For Programming (RFP) number will be assigned to the RFP by the Operations Manager or Analysis Group Director. Further changes to the functional aspects of the program will fall under the change control procedure (paragraph F. 3).

e) Upon approval of the RFP and all addenda which are published prior to the freeze date indicated on the computer program milestone schedule, Section 372 will prepare a program specification for each program. The Data Processing Project Engineer is responsible for maintaining a listing of all program specifications, and for resolving ambiguities between the RFP and the Program Specification. Either the Data Processing Project Engineer, the Operations Manager or the Analysis Group Director, or the Computer Program Cognizant Engineer may appeal or present otherwise irresolvable ambiguities to the SFO Director for resolution. The program specification for each program will be frozen upon approval by the Data Processing Project Engineer and the Computer Program Cognizant Engineer.

f) Subsequent to approval of the program specification, Section 372 will proceed with the programming and the Computer Program Cognizant Engineer will prepare a Program Test Specification to be submitted to the Data Processing Project Engineer. Upon completion of the programming effort by Section 372, the program will be tested according to the Program Test Specification. The Computer Program Cognizant Engineer will witness the test, and if the program conforms, it will be declared operational by the Computer Program Cognizant Engineer and forwarded, in writing, to the Data Processing Project Engineer.

g) Once declared operational by the Computer Program Cognizant Engineer, the Data Processing Project Engineer will have the program placed on a magnetic tape and kept in a file. No change will be allowed without the concurrence of the SFO

Director. Upon receipt of operational notification of all computer programs, the Data Processing Project Engineer will notify the SFO Director, in writing, that the computer programs required for operational use are available and frozen.

6. Procedure for Controlling Nonoperational Computer Programs

Nonoperational computer programs are defined as those programs which are not mandatory for ensuring mission success. Examples of nonoperational programs include certain Scientific and Spacecraft Performance Analysis Programs and the research Orbit Determination Program.

a. The nonoperational computer programs shall be included on the "List of User Routines" and on the Mariner C SFO Schedule.

b. A functional specification of each nonoperational program shall be submitted to the SFO Director for inclusion in the SFO System Design Specifications. The specification shall be prepared by the Computer Program Cognizant Engineer and shall be updated by the Computer Program Cognizant Engineer as necessary.

c. A Request For Programming will be prepared by the Computer Program Cognizant Engineer and will be submitted to the Data Processing Project Engineer for implementation and to the SFO Director for information.

d. The Computer Program Cognizant Engineer shall notify the SFO Director when the nonoperational program has been implemented and checked out.

e. Nonoperational programs shall be run in nonreal time during the space flight operation. Nonoperational programs will not be utilized during the critical phases of the mission nor for space flight monitoring during the noncritical phases.

APPENDIX B

List of Effective Documents

In addition to the control and interface publications evolved to identify management and technical factors, the *Mariner C Project Policy and Requirements* document also designated a series of overriding Laboratory-wide specifications that applied to JPL systems and responsibilities and that could be revised only with concurrence of the Project Office. Essentially, the specifications given in this appendix defined the desired process quality level.

I. SPACECRAFT

JET PROPULSION LABORATORY INTEROFFICE MEMO

To: Mariner C List 2 Date: 29 January 1965

From: Gordon J. Voelker

Subject: Mariner C Technical Documentation Data, Revision K
Supersedes Re-order Number 64-421

RE: R. J. Parks' memo - Re-order Number 64-112
dated 1 April 1964

The attached data has been revised and updated to 27 January 1965. This revision will continue at three-month intervals until technical documentation is complete on this project. This revision replaces the issue of 18 September 1964.

The Mariner C Space Flight Operations System Design Specifications have been added to this issue and will be updated at each revision. These design specifications document the functions of SFO as they pertain to the Mariner C project.

This issue contains the breakout and technical documentation of the hybrid radio under RF Communication Subsystems.

A single asterisk denotes a change from what is called out in EPD-150 and a double asterisk denotes a change from the last issue.

Your comments are solicited. Please contact the Technical Documentation Group, Extension 2523.

Gordon J. Voelker, Supervisor
Technical Documentation Group

GJV/WEG:jc

Mariner C – Effective Documents
Control, General and Process Specifications
Per EPD-150 and Addendum 1

Revision K | Effective Documents | 27 January 1965

JPL Spec Number and Effective Rev	Rel Date	Title
14902 (Cancelled)	3-14-58	Sergeant Standard Specification Wiring-Ground and Missile Electronic Equipment
*20014 F	12-13-61	General Specification, Soldering Process
20016 C (See Note 1.)	2-8-63	General Specification, Workmanship Requirements for Electronic Equipment

NOTE 1
Specifications Referenced by JPL 20016 C

20002 B	4-26-62	Process Specification, Identification, Methods Parts and Assemblies
20015 E	11-7-62	Process Specification, Flight Equipment, Potting of Connectors
20018 H	1-2-63	General Specification, Spacecraft Flight Equipment, Electrical Interconnections
20500 A	6-12-62	Process Specification, Splicing of Electrical Hook-up Wire, Ground and Flight
20501 A	12-4-62	Process Specification, Shielding Terminations, Ground and Flight
20502	5-10-61	Process Specification, Electrical Interwiring for Flight Equipment
30228 B	6-2-61	Process Specification, Spacecraft Flight Equipment, Temperature Control Surfaces, Gold Plating (Electrodeposited) for Aluminum and Aluminum Alloys
30229 B	8-9-63	Process Specification, Spacecraft Fligh Equipment, Temperature Control Surfaces, Gold Plating (Electrodeposited) for Magnesium and Magnesium Alloys

Revision K (cont)

JPL Spec Number and Effective Rev	Rel Date	Title
NOTE 1 (cont)		
Specifications Referenced by JPL 20016 C		
GPO-30263-DSN (Not applicable on Mariner C)	Not Released	General Specification, Subassembly Design and Fabrication of Electronic Flight Equipment
GPO-30995-GEN	6-6-63	General Specification, Design and Fabrication of Resistance Welded Electronic Connections
20026	5-5-60	General Specification, Component Installation of
*20027 (Use 20060 A.)		
20028 B *Amendment 1	8-16-60 1-23-64	General Specification, Terminal Boards, Fabrication of
20030 A	3-4-63	General Specification, Drawings, Standards, and Procedures
20060 A	5-14-62	Process Specification, Adhesives, Coatings, and Encapsulants for Electronic Packaging (Supersedes 20027)
*20061 B	9-21-62	JPL Preferred Parts List
*30237 A	10-24-62	Test Specification, Screening Inspection for Electronic Parts
30250 B Amendment 1 Amendment 2 *Amendment 3 (See Note 2.)	3-15-63 10-11-63 12-9-64 4-22-64	Environmental Specification, Mariner C Flight Equipment, Type Approval Environmental Test Procedures (Assembly Level)

Revision K (cont)

JPL Spec Number and Effective Rev	Rel Date	Title
	NOTE 2	
	Specifications Referenced by JPL 30250 B	
20064 A	2-28-63	General Specification for Packing Equipment for Shipment Within Continental United States
30236 A	10-20-61	Environmental Test Specification, RF Interference Control for Spacecraft and Ground Control Equipment
31252 Amendment 1	3-19-63 6-24-63	General Specification, Mariner C Flight Equipment, Mariner C Requirements for Minimum Magnetic Field (Supersedes 20065 A of 1-31-63)
30251 B * Amendment - 1	3-15-63 10-11-63	Environmental Specification, Mariner C Flight Equipment, Flight Acceptance Environmental Test Procedures and Pre-acceptance Test Limits (Assembly Level)
30261 * Amendment - 1	6-7-62 8-20-63	General Specification, Materials, Processes and Hardware for Fabrication of Spacecraft Electronic Equipment
30262	5-17-62	General Specification, Soldered Cordwood Electronic Module Fabrication
30270	12-12-62	General Specification, Spacecraft Flight and Ground Support Equipment, General Requirements for Electronic Components
30274	4-26-63	JPL Quality Control Requirements for Mariner Program Procurement
30276-A *(Desirable only)	5-14-63	Process Specification, Component Parts Selection for Circuit Application

Revision K (cont)

JPL Spec Number and Effective Rev	Rel Date	Title
*30600 A	1-23-62	Ground Support Equipment Paint Standard
*30602 C	1-30-63	JPL Standard Specification, Engraving on Ground Equipment, Control Panel Faces
30879	9-18-61	General Specification, Spacecraft Flight Equipment, Identification of Electronic Assembly Chassis
*MCO-31128-GEN-A (See Note 3.)	10-9-63	General Specification, Mariner C Flight Equipment, Electronic Packaging

NOTE 3

Specifications Referenced by JPL MCO-31128-GEN-A

ZBE-1041-0002-A	9-20-63	Spot Bonding of Component Parts with Stycast 1095/9
ZBE-1061-0001-A	9-20-63	Application of JPL Conformal Coating No. 1001 to a Printed Wiring Assembly
GPO-30263-DSN (Not applicable on Mariner C) (Deleted by Revision A to 31128)	Not Released	General Specification, Subassembly Design and Fabrication of Electronic Flight Equipment
31197 (Deleted by Revision A to 31128)	2-7-63	Process Specification, Mariner C Flight Equipment, Spacecraft Structural Fasteners Torque Limits
*MCO-31170-PRS-A	10-16-63	General Specification, Mariner C Flight Equipment
*EPD-8 Rev 1	12-20-63	Guide for the Preparation of Specs

Revision K (cont)

Other Controlling Documents

Document Number	Rel Date	Title
MC-1-110	12-17-63	Mariner C Spacecraft Design Book Introduction
*MC-2-110-A *Amendment-1	3-25-63	Mariner C Mission Objectives and Design Criteria
*MC-3-110-A	1-6-64	Design Characteristics, Mariner C
*MC-3-120-A *Amendment 2 *Amendment 3	4-13-64 7-31-64 9-3-64	Design Restraints, Mariner C
MC-4-110	12-7-62	Standard Trajectories
**MC-4-120-E	12-29-64	Spacecraft Component Design Parameters
*MC-4-130-C	7-27-64	Spacecraft Components Identification
MC-4-140	4-1-63	Vehicle Integration
*ED-151 Rev. 1	4-17-64	Launch Vehicle Spacecraft Systems Integration Document
MC-4-150	12-6-62	Telemetry Criteria
*MC-4-160-B	6-30-64	Telemetry Channel Assignment
*MC-4-170-A	1-9-64	Maneuver and Accuracy Requirement
**MC-4-180-C	10-30-64	Flight Sequence
**MC-4-190-B	12-31-64	Layout and Configuration
MC-4-540	12-13-62	Determination of Weight, Center-of-Gravity, Moments of Inertia, and Products of Inertia
30768	6-3-63	General Specification, Spacecraft Operational Support Equipment, Electrical System, Minimum Requirements for AMR Launch Complex

Revision K (cont)

Document Number	Rel Date	Title
**MCO-50038-PRS	10-1-64	Process Specification blind pressnuts DS-110, DS-111, DS-114 Inspection and Installation
*MCO-50308-FAT	7-1-64	F/A Testing of Mariner C Spacecraft
*MCO-50314-PRS-A	7-2-64	Process Specification, Mariner C Flight Equipment, Terminal Encapsulant and Component Part Lead Coating
*MCO-50325-DSN-A	10-9-64	Design Spec, Mariner Mars '64 Mars Targeting Criteria
**MCO-50368-TAT	10-22-64	T/A Tests Proof Test Model follow-up Vibration Tests
MCO-50383-GEN	To be issued Feb 5, 1965	General Specification Flight and Ground Equipment Requirements for Storage of the Mariner (MC-4) Spacecraft, Mariner (MC-5) Spacecraft Spare Part Handling Equipment and associated Miscellaneous Items
	Reference Documents	
PD-7 Rev 2	2-14-64	Mariner C Project Development Plan (C)
PD-21	6-18-64	Mariner C Mission Operation Plan
PD-23	9-16-64	Mariner 1964 Launch Constraints Planning Document
EPD-59	6-14-63	Procedures and Requirements for Scientific Instruments, Mariner Mars '64
EPD-67	7-1-63	Mariner C Design Review Data
EPD-104	7-31-62	Mariner M Study Report (C)
*EPD-122 Rev 1	8-17-64	Spaceflight Operations Plan, Mariner C Missions P-70 and P-71
**EPD-146 Rev 2	10-28-64	Conic Approximations for Mariner C Trajectories
EP-159	8-5-63	Mariner C Spacecraft SFO/DSIF Interface Document

Revision K (cont)

Document Number	Rel Date	Title
EPD-167	9-1-64	Mariner C tracking Information Memorandum
EPD-167 Vol. 2	10-15-64	Tracking Instruction Manual Mariner Mars 1964 Vol. II Nominal Predictions
EPD-172	6-28-63	Operational Handbook, Mariner C S-Band Control Unit (2CC1)
EPD-173 Rev 1	5-11-64	Space Flight Operations Test Plan for Mariner C
EPD-174	8-9-63	Preliminary Standard Trajectory, Mariner C Postinjection
EPD-178	8-26-63	Test Plan for the Mariner C Simulated Midcourse Interaction Test (SMIT)
EPD-186	1-15-64	Mariner C Spacecraft Launch Vehicle Integration Plan
EPD-186 Rev 3	8-25-64	Mariner C Spacecraft Launch Vehicle Integration Plan
EPD-187	11-15-63	The Thermal Scale Modeling of the Temperature Control Model of Mariner Mars '64
EPD-190	1-15-64	Operational Handbook, Mariner C Radio OSE Spacecraft Command, CC&S Simulator and Mode 1 Indicator Unit
EPD-200	1-17-64	Test Results for the Mariner C Simulated Midcourse Interaction Test (SMIT)
EPD-203	3-2-64	SFOF Capabilities Document for Mariner C
ED-217	6-5-64	Review of SCR Applications for Mariner C
T. O. P	12-27-63	Test and Operations Plan, Mariner C
** EPD-240	10-6-64	Operation of the RF Power Monitor Unit in the Mariner C Radio Flight Spacecraft
** EPD-245	9-15-64	Mariner Mars 1964 Project Spacecraft MC-2 Pre-shipping Acceptance Report
** EPD-246	9-15-64	Mariner Mars 1964 Project Spacecraft MC-3 Pre-shipping Acceptance Report
**EPD-247	9-30-64	Mariner Mars 1964 Project Spacecraft MC-4 Pre-shipping Acceptance Report

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 89

SUBSYSTEM STRUCTURES

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Spaceframe, Support, & Attach Hardware	352	None	*MC-4-520B	10-22-63	Spacecraft Structure
			*Amendment - 1	9-4-64	
			MC-4-521	8-5-63	Structural Criteria
			N/A (MC-31-31)		
			MCB-31197-PRS-B	10-31-63	Torque Limits (Process)
			N/A		(See Dwg J 410 1300 for Ref. Dwgs.
	Schmuecker		MCB-50122-TST-B	1-13-65	STM Test Plan (Also see applicable subassembly test plans)
Chassis & Subchassis	357	None	MC-4-550	12-7-63	Electronic Packaging
			MCO-31128-GEN-A	10-9-63	Electronic Packaging (Gen)
			MCO-31170-PRS-A	10-16-63	Electronic Subassembly (Gen)
			N/A	-	(See Dwg J 490 1042)
	Jodele		N/A	-	(See applicable subassembly test spec)
Lo - Gain Antenna Damper	352	None	Same as Spaceframe		
			N/A (MC-31-31)		Waiver Granted
	Lyman		MCB-50136-DTL-A	6-12-64	Lo-Gain Antenna Damper
			MCB-50138-ETS-A	6-18-64	Env Test Lo Gain Antenna Damper
			MCB-50354-PRS	8-20-64	
Solar Panel Boost Dampers	352	None	Same as Spaceframe		
			N/A (MC-31-31)		(Included in Detail Spec)
	Lyman		MCB-50134-DTL-A	6-12-64	Sol Panel Booster Damper
			MCB-50135-ETS-A	6-18-64	Env Tst Solar Panel Booster Damper
			MCP-50253-TST	1-20-63	TST Sol Panel and Booster Structural System
			Amendment #1	1-11-65	

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 28/c

SUBSYSTEM STRUCTURES

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number Functional Design Detail Test	Release Date	Last Line of Title or Comments
Solar Panel Cruise Dampers	352 Lyman	None	Same as Spaceframe N/A (MC-31-31) MCB-50316-DTL MCB-50317-ETS	 6-18-64 6-18-64	(Included in Detail Spec) Sol Panel Cruise Dampers Mark II Env Tst Sol Panel Cruise Dampers
Solar Panel Deployment Springs	352 Randall	None	*MC-4-570-B N/A (MC-31-31) N/A Same as Spaceframe	3-19-64	Solar Panel Actuators

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 10//

SUBSYSTEM RF COMMUNICATIONS, ELEC ASSY 5 & 6 (Unit 2)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Control Unit	334/1 T. Cocca	2CC1	*MC-4-310-A *MC-4-320-A Amendment 1 Amendment 2 31248 N/A MCX-50199-TAT MCX-50050-FAT 50050-AM-1	12-10-63 9-3-64 10-24-63 2-14-64 3-25-63 12-5-63 10-20-63 10-2-64	Telecommunications System Radio Subassembly Control Unit Type Approval Radio S/Sys Flt Acceptance Radio S/Sys
S-Band Rejection Filter	334/1 T. Cocca	2CF1 2CF2	Same as 2CC1 N/A MCX-50035-DTL-A Same as 2CC1	 9-19-63	 S-Band Rejection Filter
Circulator Switch, 4 Port & 5 Port	334/1 T. Cocca J. Boreham	2CS1 2CS2	Same as 2CC1 N/A MCX-31257-DTL-A Same as 2CC1	 9-6-63	Waiver Granted S-Band Circulator Switch
Direction Coupler & W/Test Coupler	334/1 T. Cocca	2DC1 2DC2	Same as 2CC1 N/A 31269 Same as 2CC1	 5-7-63	Waiver Granted Directional Coupler

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 112

SUBSYSTEM RF COMMUNICATIONS, ELEC ASSY 5 & 6 (Unit 2)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
High Gain Antenna	334/1	2E1	Same as 2CC1		
	J. Boreham		31251	5-8-63	Adhesive Bond (Process)
			MCA-50202-DTL	11-21-63	High Gain Antenna
			MCX-50124-TAT-A	2-13-64	T/A Test High Gain Antenna
			Amendment - 2	7-6-64	
			MCX-50186-FAT	6-15-64	F/A Test High Gain Antenna
			MCS-50254-TST	1-20-64	TST High Gain Antenna
Low Gain Antenna	334/1	2E2	Same as 2CC1		
			N/A		Waiver Granted
	Brunstein		MCB-50354-PRS	8-20-64	Replacement Procedure
			MCX-50205-DTL-A	4-28-64	Low Gain Antenna
			MCX-50137-TAT-A	5-14-64	T/A Test Low Gain Antenna
			Amendment #1	10-5-64	
			MCX-50185-FAT	4-13-64	F/A Test Low Gain Antenna
			MCX-50243-TST	4-10-64	TST Low Gain Antenna
Power Amplifiers and Supplies	334/1	2PA1 2PS1	Same as 2CC1		
			MCX-50311-PRS		Assy Procedure S-Band Dual Cavity Amplifier with 7C-C
	A. Whitney T. Cocca		31196	2-7-63	S-Band Cavity & Power Supply
			MCP-50240-DTL	1-31-64	Cavity Amplifier Power Supply
			MCX-50001-DTL	8-12-63	S-Band Cavity Amplifier & Power Supply
			MCX-50221-DTL	11-22-63	S-Band Amplifier
			MCX-50347-TAT		S-Band Single Cavity Amp & Power Supply
			MCX-50327-FAT		S-Band Dual Cavity Amp & Power Supply

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 78/3

SUBSYSTEM RF COMMUNICATIONS, ELEC ASSY 5 & 6 (Unit 2)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number Functional Design Detail Test	Release Date	Last Line of Title or Comments
Traveling Wave Tube	33	2PA2	Same as 2CC1 N/A MCX-50312-DTL MCX-50320-ETS	 5-26-64 7-10-64	Waiver Required Traveling Wave Tube T/A & F/A Hybrid Radio Sub/sys
Attenuator	33	2AT1	Same as 2CC1 N/A MCX-50304-DTL Same as 2PA2	 5-21-64	Waiver Required Radio Subsystem Attenuator
Cavity Amplifier Power Supply	33	2PS2	Same as 2CC1 N/A MCX-50310-DTL 50310-AM-1 Same as 2PA2	 5-22-64 1-22-65	Waiver Required Radio Sub/System Cavity Amplifier Power Supply
Traveling Wave Tube Power Supply	33	2PS3	Same as 2CC1 N/A MCX-50309-DTL 50309-DTL-AM-1 Same as 2PA2	 5-18-64 5-27-64	Waiver Required Traveling Wave Tube Power Supp

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page ~~13~~ 14

SUBSYSTEM RF COMMUNICATIONS, ELEC ASSY 5 & 6 (Unit 2)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Receiver	334/1	2RA1	Same as 2CC1		
	T. Cocca		MCX-30407-DSN-C	11-11-63	Balanced Mixer Pre-Amp
			MCX-30417-DSN-D	11-11-63	X36 Multiplier
			MCX-31205-DSN-B	11-11-63	IF Amp & 2nd Stage Mixer
			MCX-31206-DSN-B	11-11-63	9.56 MC VCO
			Same as 2RA2		
			MCX-30827-DTL-D	2-19-64	Preselector
			MCX-31167-DTL-A	6-13-63	10 MC Bandpass Crystal Filter
			Same as 2CC1		
Receiver	334/1	2RA1	Same as 2CC1		
	T. Cocca		MCX-31207-DSN-B	11-11-63	Phase detector and Loop Filter
			MCX-31208-DSN-B	11-11-63	19.1 MC VCO
			MCX-31209-DSN-B	11-11-63	Frequency Divider
			MCX-31210-DSN-B	11-11-63	AGC Detector and Operational Amp
			MCX-31213-DSN-C	11-11-63	9.56 MC Iso. Amp and Bal Detector
			MCX-31214-DSN-B	11-11-63	Videc Amp
			MCX-30825-DTL-C	11-11-63	20 Cycle S-Band Mark I
			Same as 2CC1		
Exciters	334/1	2RE1	Same as 2CC1		
	T. Cocca		MCX-31211-DSN-B	11-11-63	Auxiliary OSC - X4 Frequency
			MCX-31212-DSN-B	11-11-63	X30 Frequency Multiplier
			Same as 2RA2		
			MCX-50108-DTL	11-22-63	S-Band Isolator
			Same as 2CC1		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 115

SUBSYSTEM RF COMMUNICATIONS, ELEC ASSY 5 & 6 (Unit 2)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Receiver TR	334/1 T. Cocca	2TR1	Same as 2CC1 Same as 2RE1 MCX-50114-DTL 50114-AM-1 Same as 2CC1	 9-27-63 11-15-63	 Rcvr & Exciter Transformer Rectifier
Exciter TR	334/1 T. Cocca	2TR2	Same as 2CC1 Same as 2TR1 N/A Same as 2CC1		
Temperature Transducer	334/1 McCreight Apel	2TT1 2TT5 2TT6	Same as 6A1 MCF-50034-DSN N/A 30026	 9-9-63 5-1-63	 Surface Temperature Transducer T/A & F/A Temperature Transducers
Coaxial Cable	334/1 T. Cocca Galbraith	See Dwg J 4600 521	Same as 2CC1 Same as 2CC1 MCX-50202-DTL MCX-50250-TAT MCX-50287-FAT MCX-50259-TST See 2E2 See 2PA2 See 2E1 See 2CC1	 11-20-63 1-9-64 5-1-64 1-20-64	 Transmission Lines and Antenna Probe Antenna Cable T/A Antenna Cable F/A Antenna Cable (2W1 - 2W2)

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page ~~15~~ 16

SUBSYSTEM COMMAND (Unit 3)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Command Detector	334/3	3A1	*MC-4-310-A (See 2CC1)	12-10-63	
		3A2	*MC-4-332-B	4-9-64	Command Subassembly
			*Amendment - 1	8-27-64	
	Spear	3A3	MCK-31193-DSN-C	5-21-64	Command Subassembly
			N/A		
Decoder Program Control		3A4	MCK-50146-TAT	11-22-63	T/A Test, Flt Command Subsystem
			MCK-50008-FAT-A	2-18-64	Flt Command Subsystem, F/A
Decoder		3A5			
		3A6			
Command TR		3A7			

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 17

SUBSYSTEM POWER - ELECTRICAL (Unit 4)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Solar Panels	34/35	4A1	*MC-4-460-B	10-23-64	Power System
		4A3	Same as 4A8	-	
	J. Goldsmith	4A5	MCP-31169-DSN-B	8-13-63	Solar Panel Structure
		4A7	MCP-30287-GEN	8-17-63	Solar Panel Assy
			(Plus a number of subsidiary dash numbered specs)		
	R.L. Moore		MCP-31585-DTL	7-11-63	Solar Panels
			31585-AM-1	4-20-64	
			MCP-50219-DTL	12-13-63	Solar Cells Submodule
			50219-AM-1	2-17-64	
			30264-A	9-14-63	Solar Cells
			MCP-50141-PRS	1-22-65	Solar Panel Storage Requirements
			MCP-50142-PRS	1-22-65	Solar Panels Hdlg & Transportation
			MCB-50333-DTL-B	8-25-64	Installation Procedure
			MCB-50348-TST-B	8-18-64	Solar Panel Deployment
			MCP-31586-TST	3-9-64	Solar Panels
			MCP-31583-FAT-B	4-2-64	Solar Panels F/A
			MCP-31584-TAT	11-20-63	Solar Panels T/A
			MCP-50127-TST-A	2-26-64	Performance Reqs Power S/Sys
			MCP-50351-TST	8-25-64	Pre Etr & Etr TST Requirements
			MCP-50081-PRS	8-27-64	Structure Repair Procedure
Power Regulator 4A8	342	4A8	Same as 4A1		
			MCP-30792-DSN-B	10-2-64	Power System
	Schubert Case VIII		MCP-31512-DTL-C	9-14-64	Power Regulator
			MCP-31590-ETS-A	3-16-64	Power Supply System Case VIII, T/A & F/A

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 11/8

SUBSYSTEM POWER - ELECTRICAL (Unit 4) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Power Distribution	342 Schubert	4A11	Same as 4A1 Same as 4A8 MCP-31270-DTL-C MCP-31591-ETS 31591-AM-1-A	 9-15-64 1-20-64 2-4-64	 Distribution Subassembly Power Supply System Case I, T/A & F/A
Synchronizer	342 Schubert	4A12	Same as 4A1 Same as 4A8 MCP-31154-DTL-D Same as 4A11	 9-11-64 1-7-64 2-19-64	 Synch Subassy
Battery Charger	342 Schubert	4A13	Same as 4A1 Same as 4A8 MCP-50247-DTL MCP-31507-DTL-B 31507-AM-1-B 31507-AM-2-B Same as 4A11	 3-11-64 10-31-63 1-7-64 2-7-64	 Backup Battery Charger Subassy Battery Charger Subassy

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 111

SUBSYSTEM POWER - ELECTRICAL (Unit 4) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
Battery	342 Long	4A14	Same as 4A1		
			Same as 4A8		
			MCP-31156-DSN-A	7-18-63	Mark VI Battery
			MCP-50208-DTL	12-18-63	Mark VI Battery
			MCP-50208-AM-1	1-14-64	
			MCP-31540-TAT-A	3-25-64	Power Subsystem Mark VI Battery T/A
			MCP-50024-FAT-A	11-12-63	Mark VI Battery (4A14) F/A
			50024-AM-1-A	1-14-64	
			50024-AM-2-A	5-19-64	
			50024-AM-3-A	8-17-64	
2400 Inverter, Main Maneuver	342 Schubert	4A15 4A16	Same as 4A1		
			Same as 4A8		
			MCP-31267-DTL-D	9-11-64	2.4 KC Inverter
			Same as 4A11	1-7-64	
400 , 1 Ø Inverter	342 Schubert	4A17	Same as 4A1		
			Same as 4A8		
			MCP-30780-DTL-C	10-16-63	400 Cycle, 1 Phase Inverter
			MCP-30780-AM-1-C	12-17-63	
			Same as 4A11		
400 , 3 Ø Inverter	342 Schubert	4A18	Same as 4A1		
			Same as 4A8		
			MCP-31259-DTL-C	12-27-63	400 Cycle, 3 Phase Inverter
			Same as 4A11		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page ~~19~~ 20

SUBSYSTEM POWER - ELECTRICAL (Unit 4) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Temperature Transducer Solar Panel	334/1 McCreight Apel	4TT1 4TT3	Same as 2TT1 Same as 2TT1. N/A Same as 2TT1		
Wiring, Solar Panel	342 J. Goldsmith	4W1 4W3 4W5 4W7	Same as 4A1 Same as 4A1 Same as 4A1 Same as 4A1		
Solar Panel Depolyment Springs	352 Randall	None	*MC-4-570-B N/A (MC-31-31) N/A Same as Spaceframe	3-19-64	Solar Panel Actuators

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 2021

SUBSYSTEM CC&S - ELEC ASSY 7 (Unit 5)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
CC&S Subassy	341	5A1	**MC-4-450-B	12-31-64	CC&S Subsystem
		thru	MCC-30794-DSN-B	5-28-64	Flt Equip. - CC&S Subassy
	Herman	5A9	31084-A	1-5-63	P/T Equip. - CC&S Subassy
			31085-C	5-13-63	CC&S Subassy
			31085-C-AM-1	7-1-63	
			31085-C-AM-2	8-9-63	
			MCC-31060-PRS-C	11-6-63	CC&S Subassy (Process)
			MCW-31054-PRS-B	7-15-63	CC&S Case Harness (Process)
			MCW-31054-AM-1-B	9-9-63	
			MCC-31040-ETS-C	5-13-64	CC&S Test (T/A & F/A)
			UNIT ACCEPTANCE TESTS		
Central Clock		5A1	MCC-50210-TST-A	6-18-64	Central Clock S/Assy TST
Launch Center		5A2	MCC-50113-TST-A	6-4-64	Launch Computer S/Assy TST
EPD Center		5A3	MCC-50117-TST-A	6-2-64	End Counter S/Assy TST
Maneuver Clock		5A4	MCC-50110-TST-A	1-23-64	Maneuver Clock S/Assy Test
Maneuver Dur.		5A5	MCC-50105-TST	5-28-64	Maneuver Duration S/Assy Test
Add R&M Output		5A6	MCC-50015-TST-A	6-12-64	Address Register & Maneuver Duration Output Assy
Input Decoder		5A7	MCC-50016-TST-A	5-28-64	CC&S Input Decoder Assy
CC&S TR		5A8	MCC-50017-TST-B	6-4-64	CC&S Transformer - Rectifier
CC&S Power Supply		5A9	MCC-50315-TST	6-19-64	Relay Hold X-Frmr Rectifier Subassy

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 22

SUBSYSTEM DATA ENCODER - ELEC ASSY 4 (Unit 6)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Data Encoder Subassy	334 Apel	6A1 thru 6A13	MC-4-310 (see 2CC1) *MC-4-321-B MCN-31044-DSN-C N/A MCN-31601-ETS	6-30-64 5-31-63 8-7-63	Spacecraft Telemetry System Flight Data Encoder Subsystem T/A & F/A
Temperature Transducer	334 McCreight Apel	6TT1	Same as 2TT1 Same as 2TT1 N/A Same as 2TT1		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 22 23

SUBSYSTEM ATTITUDE CONTROL (Unit 7)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Attitude Control Electronics	344	7A1	*MC-4-410-A	12-6-63	Attitude Control
			*Amendment-1	3-23-64	
			MC-4-420	12-12-62	Auto Pilot
	W. Benjamin		Not Issued		
			N/A		
			MCV-50132-ETS-A	2-17-64	Environmental Test Assy Case VII
			MCV-50096-TST	10-16-63	Attitude Control Electronics
			MCV-50144-TST	10-18-63	Att Cont Electronic Testing
			MCV-50151-TST	11-18-63	Att Cont X-Frmr C63T2
			MCV-50152-TST-A	4-20-64	Att Cont X-Frmr C63T3
			MCV-50153-TST-A	4-23-64	Att Cont Solar Vane Control
			MCV-50154-TST-B	12-11-64	Att Cont Power Switch Amp
			MCV-50155-TST-A	4-20-64	Att Cont Lwr Ring Harn Conntr
			MCV-50156-TST-A	4-20-64	Att Cont Switching Logic A
			MCV-50157-TST-B	12-11-64	Att Cont Tele Buffer
			MCV-50158-TST-A	4-20-64	Att Cont Relay Non-Latching
			MCV-50159-TST-A	4-20-64	Att Cont Roll Search Inhibit
			MCV-50160-TST-A	12-11-64	Att Cont Jet Vane Cont
			MCV-50161-TST-B	12-11-64	Att Cont Preamp Switchng Amp
			MCV-50162-TST-A	12-11-64	Att Cont Gyro Switch
			MCV-50163-TST-B	12-11-64	Att Cont Receiver & Regulator
			MCV-50164-TST-A	4-20-64	Att Cont Canopus & Sun Gates
			MCV-50165-TST-B	12-11-64	Att Cont DC Switch Logic B
			MCV-50166-TST-A	1-13-65	Att Cont Case Harness Conntr
			MCV-50167-TST-A	12-11-64	Att Cont Derived Rate Capctrs
			MCV-50168-TST-A	4-20-64	Att Cont Pwr Sup Capacitors
			MCV-50169-TST-A	4-20-64	Att Cont Relay Latching
			MCV-50170-TST-A	4-22-64	Att Cont Tst Conntr

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 324

SUBSYSTEM ATTITUDE CONTROL (Unit 7) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Gyro Control Electronics	344/3 Hand	7A2	Same as 7A1 Same as 7A1 MCV-50126-DTL-A MCV-31100-DTL-B Same as 7A1	 1-12-65 7-22-64	 Gyro Control Assy Miniature Floated Gyro
Canopus Sensor	344/2 Davis	7CS8	Same as 7A1 Same as 7A1 MCV-31253-DTL 31253-AM-1 MCV-50030-DTL-B MCV-31163-TST-A 31163-AM-1-A MCV-50029-ETS-B	 4-4-63 8-22-63 10-13-64 4-15-63 8-22-63 8-17-64	 Canopus Tracket Optical Subassy Canopus Star Tracker Electro-Static Im. Det. Canopus Star Tracket T/A & F/A
Canopus Sensor Sun-Shutter	34 L. Schmidt	7CS8/A	Same as 7A1 Same as 7CS8 Same as 7CS8 MCR-50222-ETS	 12-20-63	 Canopus Sensor Sun Shutter T/A & F/A
Earth Detector	344/2	7ED6	Same as 7A1 Same as 7CS8 MCV-50193-DTL MCV-31587-ETS-A	 12-5-63 3-9-64	 Earth Detector Earth Detector T/A & F/A

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 43

SUBSYSTEM ATTITUDE CONTROL (Unit 7) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
2 Jet Gas Manifold	344 Dahlgren	7GM21 7GM211	Same as 7A1 Same as 7CS8 30941	1-16-63	Solenoid Actuated Jet Valve
4 Jet Gas Manifold	344 Dahlgren	7GM41 7GM411	31127-C MCV-50192-ETS	3-13-64 5-14-64	A/C Gas Actuator Sys (Process) A/C Valve & Jet Assys
Gas Regulator & Vessel	344 Dahlgren	7GR1 7GR11 7GV1 7GV11	Same as 7A1 Same as 7CS8 Same as 7GM21 MCV-50194-ETS 50194-AM-1 MCV-50352-TST	5-18-64 8-7-64 12-30-64	Equip. Plate Assy Pressure Vessel
Thrust Vector Control Assy	344 T. Donlin	7JV1 7JV2 7JV3 7JV4	Same as 7A1 N/A MCV-30992-DSN-D 30992-AM-1-D Not Issued MCV-31510-ETS-A 31510-AM-1-A	- 8-20-63 10-31-63 8-27-63 7-16-64	Waiver Granted Jet Vane Actuator Thrust Vector Control Thrust Vector Control T/A & F/A
Solar Pressure Control Assy	344 T. Donlin	7PC1 7PC3 7PC5 7PC7	MC-4-411 MCV-31261-DSN-A Same as 7A1 Not Issued MCV-50087-ETS 50087-AM-1	5-10-63 5-27-63 10-10-63 10-25-63	Solar Pressure Attitude Control Solar Vane Actuator Solar Vane Actuator Solar Vane Actuator Assy T/A & F/A

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 2526

SUBSYSTEM ATTITUDE CONTROL (Unit 7) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Primary Sun Sensor	344	7PS2 7PS6	Same as 7A1 Same as 7CS8 MCV-50189-DTL MCV-31552-ETS-A	 11-20-63 1-24-64	 Square Root Sun Sensor Attitude Control Acquisition and Cruise Sun Sensors T/A & F/A
Gas Vessel Pressure Transducer	344 McCreight Apel	7PT1 7PT11	Same as 2TT1 Same as 2TT1 N/A MCV-50095-ETS	 9-26-63	 Pressure Transducer
Sun Gate Detector	344 Schmidt	7SG7	Same as 7A1 Same as 7CS8 MCV-50123-DTL 50123-AM-1 MCV-31555-ETS 31555-AM-1	 11-6-63 2-25-64 7-2-63 11-4-63	 Sun Gate Sun Gate T/A & F/A
Secondary Sun Sensor	344 Schmidt	7SS2 7SS6	Same as 7A1 Same as 7CS8 Same as 7PS2 Same as 7PS2		
Gas Vessel Temperature	334 McCreight Apel	7TT1 7TT11	Same as 2TT1 Same as 2TT1 N/A Same as 2TT1		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page ~~427~~

SUBSYSTEM ATTITUDE CONTROL (Unit 7) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Narrow Angle Mars Gate	344	7MG1	Not Issued		
	Hooper		N/A		Waiver Granted
			MCS-50098-DTL	11-4-63	Narrow Angle Mars Gate
			MCS-31579-ETS	8-13-63	Narrow Angle Mars Gate T/A & F/A
			31579-AM-1	11-21-63	
Solar Pressure Vane & Deploy Mechanism	352	None	Same as Spaceframe		
			Same as 7PC1		
	Randall		N/A (MC-31-31)		
			MCB-31595-PRS-A	3-23-64	Vane Folding Procedure
			MCV-31538-DTL	8-19-63	Solar Pressure Vane Deploy and Latching Mechanism
			31538-AM-1	8-26-63	
			31538-AM-2	5-22-64	
			N/A (MC-31-31)		(Included in MCV-31538-DTL)

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 328

SUBSYSTEM PYROTECHNIC - SQUIBS (Unit 8)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Pyrotechnic Control	357/1	8A1 8A2	*MC-4-530-B *Amendment 1 N/A	12-2-63 6-22-64	Pyrotechnic Subsystem Waiver Granted
S/A #1 S/A #2	M. L. Moore		MCE-5023-DTL MCE-50172-ETS	9-4-64 11-8-63	Pyrotechnic Control S/Assy Pyrotechnic S/Sys T/A & F/A
Pyrotechnic Arming Sw	352/2 Randall	8AS1	Same as 8A1 N/A (MC-31-31) N/A MCE-50018-ETS	8-22-63	Pyrotechnic Arming Switch T/A & F/A
Separation Initiated Timer	352/2 Coyle	8M1	MC-4-590-A *Amendment 1 N/A (MC-31-31) MCE-50060-DTL 50060-AM-1 MCE-50068-ETS 50068-AM-1	10-11-63 5-1-64 10-23-63 3-16-64 10-23-63 3-16-64	Separation Initiated Timer Separation Initiated Timer Separation Initiated Timer T/A & F/A
Unlatch Motion Sensors	357/1 M. L. Moore	8MS1 thru 8MS8 8MS50	Same as 8A1 N/A (MC-31-31) Same as 8PP1 Same as 8PP1		
Solar Panel Open Switches	352/1 Randall	8MS11 8MS13 8MS15 8MS17	Same as Solar Panel Deployment Springs N/A (MC-31-31) N/A N/A (MC-32-31)		(With "A" Revision Required)

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 29

SUBSYSTEM PYROTECHNIC - SQUIBS (Unit 8) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Solar Panel Pin Puller	357/1 M. L. Moore	8PP1 thru 8PP8	Same as 8A1 N/A (MC-31-31) MCE-31541-DTL-A	5-18-64	Explosively Actuated Pin Puller Assy
Platform Pin Puller		8PP50	MCE-31577-ETS-A	5-18-64	Explosively Actuated Pin Puller Assy, T/A & F/A
Squibs 1) Solar Panel 2) Scan Platform	357/1 M. L. Moore	8SQ1 thru 8SQ8 8SQ21 thru 8SQ28 8SQ50 8SQ51 8SQ70	Same as 8A1 N/A (MC-31-31) Same as 8PP1 Same as 8PP1		
3) Propulsion Valve	38 Weiner	8SQ10 thru 8SQ19	Same as Propulsion Sys. Assy. MCE-31192-DSN-4 N/A N/A (MC-11-31)	7-30-64	Explosively Activated Valve Assy TST Spec Covered in 31192

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 32

SUBSYSTEM SPACECRAFT WIRING (Unit 9)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Harness (All Systems)	357/ 4 Pierce	9W1 thru 9W34	MC-4-560	4-11-63	S/C Cabling & Harness Assys
			MCW-50031-DSN	11-14-63	S/C Cabling & Harness Assys
			31137	4-22-63	S/C Cabling & Harness Assys
			MCW-50010-ETS See Below	9-24-63	Spacecraft System Cabling, F/A & T/A
Upper Ring Solar Panel Sqb Pyro		9W1 9W8	MCB-50122-TST-A	1-29-64	STM Test Plan
Upper Ring Motion Sensor		9W9 9W14			
Lower Ring		9W19			
Science Case III		9W20			
Upper Science Sig. & Pwr		9W22			
Lower Science Sig.		9W23			
Scan Actuator		9W25			
Solar Plas. Interconnect Harness		9W27			
Science Pyro		9W28			
Magnetometer Interconnect Harness		9W30			
Scan Platform Pyro		9W31 •			
Scan Electronic Interconnect Harness		9W33			

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 30-31

SUBSYSTEM SPACECRAFT WIRING (Unit 9) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Comm. Case VI	357/4	9W2	Same as 2PA1		
Comm. & TR Case V	Pierce	9W3	Same as 3A1		
Power Case I		9W4	Same as 4A18		
CC&S Case VII		9W5	Same as 5A1		
Comm & Encoder Case IV		9W6	Same as 6A1		
A/C Case VII		9W7	Same as 7A1		
Midcourse Mtr Scb		9W10	Same as Unit 10		
Midcourse Mtr Instr		9W11	Same as Unit 10		
Comm Rcvr Case V		9W13	Same as 2RA1		
Solar Vane & Gas System		9W15	Same as 7GV1		
		9W16	Same as 7GV1		
Tape Machine Case V		9W17	Same as 16A1		
Pyro Case I Aux		9W18	Same as 8A1		
DAS Interconnect Harness		9W21	Same as 20A1		

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 132

SUBSYSTEM SPACECRAFT WIRING (Unit 9) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Mag Signal	357/4	9W26	Same as 9W1	NC	
Mag Coax Line (Lamp)	Pierce	9W29	Same as 9W1	NC	
Mag Coax Line (Cell)		9W34	Same as 9W1	NC	

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 3-33

SUBSYSTEM PROPULSION ASSY (Unit 10)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Propulsion System Assy	38 Schmitz	None	*MC-4-610 A *Amendment 1 N/A (MC-11-31) N/A (MC-11-31) MCM-31524-ETS-A	4-1-63 9-4-64 5-18-64	Postinjection Propulsion System Postinjection Propulsion System (T/A & F/A)
Motor & Catalyst	38/ Schmitz	None	Same as Prop. Sys. Assy Same as Prop. Sys. Assy Same as Prop. Sys. Assy MCM-31525-ETS MCM-31525 AM-1	 7-9-63 10-4-63	Rocket Engine (T/A & F/A)
Valves, Propellant Nitrogen Oxidizer	38 Schmitz	None	Same as Prop. Sys. Assy See 8SQ10 See 8SQ10 See 8SQ10		(See 31524 for test outline)
Ignition Cartridges	38 Hartung	None	Same as Prop. Sys. Assy Same as Prop. Sys. Assy Same as Prop. Sys. Assy MCM-31527-ETS	 6-26-63	Oxidizer - Cartridge T/A & F/A
Nitrogen Press Regulator	38 Toth	None	Same as Prop. Sys. Assy Same as Prop. Sys. Assy Same as Prop. Sys. Assy MCM-31526-ETS 31526-ETS-AM-1	 8-20-63 8-30-63	Pneumatic Regulator T/A & F/A

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 334

SUBSYSTEM PROPULSION ASSY (Unit 10) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Thrust Vector Control	34	None	Same as 7JV1 Same as 7JV1 Same as 7JV1 Same as 7JV1		
Pressure Transducer Nitrogen, Engine, Propellant & Oxidizer	334 McCreight/ Apel	10PT1 thru 10PT4	Same as 7PT1 Same as 7PT1 N/A Same as 7PT1		
Temperature Transducers Propellant & Nitrogen Tanks	334 McCreight Apel	10TT2 10TT3	Same as 2TT1 Same as 2TT1 N/A Same as 2TT1		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 435

SUBSYSTEM THERMAL CONTROL ASSY (Unit 11)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Absorptivity Standard	352/3	11FM1	*MC-4-511-A	3-30-64	Absorptivity
			*Amendment-1	9-10-64	Waiver Granted
	Thostesen		N/A		
			MCF-50021-DTL	10-3-63	Platinum Resistance Thermometer Assy Procedure
			MCF-50233-DTL	1-23-64	Digital Thermometer
			MCO-31549-ETS	7-8-63	Absorptivity Standard T/A & F/A
Louver Assy & Position Transducer	352/2	11LT3	*MC-4-510-A	5-1-63	Temperature Control System
		11LT4	N/A		Waiver Granted
	Coyle	11LT6	N/A		(Ref. Drawing 410 1330)
		11LT7	31241	3-7-63	Temperature Control Louvers F/A
		11LT8	31242	3-8-63	Temperature Control Louvers T/A
Temperature Transducer	334/2		Same as 2TT1		
			Same as 2TT1		
1) E-A1	McCreight	11TT1	N/A		
2) E-A2	Apel	11TT3	Same as 2TT1		
3) E-A3		11TT7			
4) E-A4		11TT8			
5) Battery		11TT9			
6) Upper Shield		11TT21			
7) Lower Shield		11TT22			
8) Absorptivity		11TT25			
9) Absorptivity		11TT23			

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 35-36

SUBSYSTEM TAPE RECORDER (Unit 16)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number Functional Design Detail Test	Release Date	Last Line of Title or Comments
Tape Machine	334/3 Trester	16A1	*MC-4-323-B *Amendment 1 MCR-31536-DSN MCR-31537-DSN MCR-31188-DSN-B 31187 MCR-50026-ETS-A	2-4-64 7-17-64 7-19-63 7-19-63 9-13-63 1-7-63 1-30-64	Video Tape Recorder Record Motor Playback Motor Video Tape Recorder Playback Unit Video Storage Subsystem T/A & F/A
Tape Machine Electronics	334/3 Trester	16A2 16A3	Same as 16A1 Same as 16A1 N/A Same as 16A1		
Tape Machine T. R.	334/4 Trester	16A4	Same as 16A1 Same as 16A1 N/A Same as 16A1		
Tape Machine Pressure Transducer	334/2 McCreight Apel	16PT1	Same as 2TT1 Same as 2TT1 N/A Same as 7PT1		
Tape Machine Temperature Transducer	334/2 McCreight Apel		Same as 2TT1 Same as 2TT1 N/A Same as 2TT1		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 37

SUBSYSTEM DAS (Unit 20)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
DAS Buffer Memory	324/5 W. Schneider	20A1	MC-4-220 31138 Same as 20A2 N/A MCD-31598-ETS	6-25-63 1-9-63 7-30-63	Science Data Auto System Seq. Addressed Memory Science Instr. DAS F/A & T/A
Real Time DAS Logic	324/5 Schneider	20A2 20A4	Same as 20A1 31189 A MCD-50280-DTL Same as 20A1	 2-12-63	 DAS DAS
Non-Real Time DAS Logic	324/5 Schneider	20A3	Same as 20A1 Same as 20A2 Same as 20A2 Same as 20A1		
DAS T-R Subassy	324/5 Schneider	20A5	Same as 20A1 Same as 20A2 MCS-31247-DSN-B Same as 20A1	 7-10-63	 DC Power Conv.

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 38

SUBSYSTEM COSMIC RAY TELESCOPE (Unit 21)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Cosmic Ray Telescope (University of Chicago)	322/2 R. Holman	21A1	MC-4-221	10-7-63	Cosmic Ray Telescope
			MCS-31597-DSN	9-9-63	Cosmic Ray Telescope
			N/A		
			MCS-50101-ETS	9-30-63	Cosmic Ray Telescope T/A & F/A

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 39

SUBSYSTEM COSMIC DUST DETECTOR (Unit 24)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
Cosmic Dust Detector Sensor (GSFC)	322/4 Scholfield	24A1	*MC-4-224-C	7-7-64	Cosmic Dust Detector
			MCS-50269-DSN-A	7-1-64	Cosmic Dust Detector
			N/A		
			MCS-50118-ETS-A	4-22-64	Cosmic Dust Detector

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 39-46

SUBSYSTEM TRAP RADIATION DETECTOR (Unit 25)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number Functional Design Detail Test	Release Date	Last Line of Title or Comments
Trapped Radiation Detectors (SUI)	322/4 Schofield	25A1	MC-4-225 *Amendment 1 MCS-50033-DSN N/A MCS-50094-ETS	9-10-63 1-15-64 10-15-63 9-25-63	Trapped Radiation Detector Trapped Radiation Detector Trapped Radiation Detector T/A & F/A
Temperature Transducers	334/2 McCreight Apel	25TT1	Same as 2TT1 Same as 2TT1 N/A Same as 2TT1		

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 104

SUBSYSTEM ION CHAMBER (Unit 26)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
Ion Chamber	322/4 G. Despain	26A1	*MC-4-226-A MCS-31235-DSN MCS-31578-DTL MCS-50019-ETS-A	11-22-63 2-5-63 5-31-63 12-11-63	Ion Chamber Ionization Chamber Assy Ionization Chamber Assy Ionization Chamber Assy (T/A & F/A
Temp Transducer	334 McCreight Apel	26TT1	Same as 2TT1 Same as 2TT1 N/A Same as 2TT1		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 142

SUBSYSTEM SCAN SUBSYSTEM (Unit 31)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Scan Sensor & Preamps	324/2 Wong	31A1	*MC-4-231-C MCS-31515-DSN-A 31515-AM-1-A 31201 31194 N/A MCS-50092-ETS	1-8-64 11-21-63 1-2-64 3-13-63 2-1-63 10-9-63	Planetary Scan Subsystem Planetary Scan Power Supply Unit Planetary Scan Plan Scan Subsystem T/A & F/A
Scan System Electronics & TR	324/2 Wong	31A2	Same as 31A1 Same as 31A1 N/A Same as 31A1		
Scan System Electronic	324/2 Wong	31A3	Same as 31A1 Same as 31A1 N/A Same as 31A1		
Scan Actuator Support & Mount	352/2 Floyd	31A4	MC-4-580-A *Amendment 1 MCS-50007-PRS 50007-AM-1 N/A N/A MCS-31599-ETS	5-1-63 5-26-64 12-9-63 12-30-63 9-10-63	Scan Actuator Scan Actuator Assy (Waiver Granted) Scan Actuator T/A & F/A

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page [illegible]

SUBSYSTEM SCAN SUBSYSTEM (Unit 31) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Science Cover	352/2 Coyle	31A5	Same as 31A4 N/A MCS-50293-PRS-A Same as 31M2	9-21-64	Installation Procedure
Scan Actuator Power Switch	352/2 Coyle	31M1	Same as 31A1 N/A (MC-31-31) N/A N/A (MC-32-31)		
Science Cover Latch Actuator	352/2 Coyle	31M2	Same as 31A4 N/A (MC-31-31) N/A MCS-50125-ETS	10-11-63	Science Cover Latch Actuator T/A & F/A

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page ~~144~~

SUBSYSTEM PLASMA PROBE (Unit 32)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number Functional Design Detail Test	Release Date	Last Line of Title or Comments
Plasma Probe Sensor	322/1 Graham	32A1	*MC-4-232-A MCS-50171-DSN N/A MCS-50143-ETS	2-4-64 11-11-63 2-4-64	Plasma Probe Plasma Probe Env Test Plasma Probe
Plasma Probe Electronics	322/1 Graham	32A2	Same as 32A1 Same as 32A1 N/A Same as 32A1		
Plasma Probe Electronics	322/1 Graham	32A3	Same as 32A1 Same as 32A2 N/A Same as 32A1		
Plasma Probe Power Supply	322/1 Graham	32A4	Same as 32A1 Same as 32A2 N/A Same as 32A1		

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 445

SUBSYSTEM HELIUM MAGNETOMETER (Unit 33)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Magnetometer Sensor	322/1 Norris	33A1	**MC-4-233-A MCS-31175-DSN-A N/A MCS-50100-ETS 50100-AM-1	10-9-64 7-11-63 - 9-19-63 7-13-64	Helium Magnetometer SCI Instruments Mag. Magnetometer T/A & F/A
Magnetometer Electronics & TR	322/1 Norris	33A2	Same as 33A1 Same as 33A1 N/A Same as 33A1		
Magnetometer Electronics	322/1 Norris	33A3	Same as 33A1 Same as 33A1 31180 (See 34A2) N/A Same as 33A1		
Temperature Transducers	334 McCreight/ Apel	33TT1	Same as 2TT1 Same as 2TT1 N/A Same as 2TT1		

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page 45-46

SUBSYSTEM U. V. PHOTOMETERS (Unit 34)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
U. V. Photometers	322/4	34A1	MC-4-234-A	10-24-63	
			*Amendment-1	9-10-64	U. V. Photometers
			MCS-31533-DSN-A	7-16-63	U. V. Photometers
			MCS-50006-DTL	9-18-63	U. V. Photometers
	Margetts		MCS-50025-ETS-A	3-30-64	U. V. Photometers T/A & F/A
U. V. Electronics	322/4	34A2	Same as 34A1		
			Same as 34A1		
			MCD-31180-DSN-C	7-24-63	Data Acquisition Width Conversion Complementary Modules
			Same as 34A1		
	Margetts		Same as 34A1		
Temperature Transducers	334	34TT1	Same as 2TT1		
			Same as 2TT1		
	McCreight Apel		N/A		
			Same as 2TT1		

NOTE: U. V. PHOTOMETER HAS BEEN REMOVED FROM MARINER C. REFERENCE I. O. M MC-121-31
PER D. SCHNEIDERMAN

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page ~~46~~ 47

SUBSYSTEM TELEVISION (Unit 36)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
TV Optics Subassembly	322/ 5 Allen	36A1	MC-4-236 MCT-31108-DSN-F Same as 36A2 MCT-31204-DTL-C MCT-50089-ETS-A MCT-50119-TST-A	4-22-63 9-26-63 7-15-63 1-25-65 11-5-63	Television Subsystem Optical for Vidicon Camera Cassegrainian Optical Subsystem Television Camera Subsystem Preacceptance Tst Reqs. TV Camera Shutter
TV Camera Head Subassy	322/ 3 Allen	36A2	Same as 36A1 MCT-31531-DSN-A N/A Same as 36A1	1-19-65	TV Camera Subsystem TV Camera Subsystem
Camera Electronics 1 & 2	322/ 3 Allen	36A3 36A4	Same as 36A1 Same as 36A2 N/A Same as 36A1		
TV Encoder	322/ 3 Allen	36A5	Same as 36A1 Same as 36A2 N/A Same as 36A1		
TV T-R	322/ 3 Allen	36A6	Same as 36A1 Same as 36A2 N/A Same as 36A1		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 47-4.1

SUBSYSTEM TELEVISION (Unit 36) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Camera Head Temperature Transducer	334/2 McCreight Apel	36TT1	Same as 2TT1 Same as 2TT1 N/A Same as 2TT1		

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 41

SUBSYSTEM OSE - GENERAL

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
AMR Launch Complex	313 Meyer		N/A MCG-30814-DSN MCG-30768-GEN	 12-2-63 6-3-63	 AMR Launch Complex #12 & #13 Elec. Systems - AMR
General Requirements			GMW-20057-DSN-B	2-7-64	Ground Support Equipment, Gen. Design Reqmts for Elect. Connections
			MCG-30506-PRS	10-4-63	Assy Identification, Mariner Ground Support Equipment
			30600 A	1-23-62	GSE Paint Standard
			30602 C	1-30-63	Engraving on Ground Equipment Cont. Panel Faces
			30603 A	1-19-62	Knob Standard for Ground Equipment Single Turn Knobs
			30604 A	1-19-62	Meters for Ground Equipment Control Panels
			30605 A	1-18-62	Colors, Indicators Light & Sw-Lite
			30609 A	1-23-62	Racks for Ground Equipment
			30610	3-15-61	GSDS Equipment Enclosures Racks/Applicable DSIF
			MCG-50028-DSN	9-9-63	Protective Cover Bag
			MCG-50285-GEN		OSE Calibration Reqmts
			MCG-50353-DTL	9-15-64	GSE Degaussing

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page ~~49~~ 56

SUBSYSTEM OSE - SYSTEMS

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional, Design, Detail, Test)	Release Date	Last Line of Title or Comments
Positioning Fixture	352 Norman	101	OSE/MC-4-170 MCG-30773-DSN-A 30025 MCG-50337-TST	6-7-63 5-11-64 4-7-63 9-28-64	S/C Handling & Posit. Fixt. Low Level Positioner Transport Trailer Solar Panel Transport Trailer
Wiring	313 Phillips Schanzen	109	OSE/MC-3-110 OSE/MC-3-120 OSE/MC-3-130-A MCG-31506-PRS GMW-20057-DSN-B	6-17-63 5-20-63 9-22-64 10-4-63 2-7-64	Design Characteristics & Restraints Power Source & Building Ground Requirements System Test Configurations & Interfaces Assembly Identification Design Requirements for Electrical Connections
Computer Data System	371 R. Stott	190	**OSE/MC-4-130-A	10-2-64	Computer Data System
Central Timing	371	196	**OSE/MC-4-140-A	9-28-64	Central Timing System
S/C Simulator	373 T. Woods		*OSE/MC-4-160-A	7-14-64	S/C Simulator
Central Recorder	371 B. Adams	198	OSE/MC-4-120	5-28-63	Central Recorder

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page ~~30~~ 51

SUBSYSTEM OSE - SCIENCE (Div. 32)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
Science	32	120	**OSE/MC-4-210-A	10-8-64	Science
	Rotter		30764-A	5-22-63	TV Subsystem Optical Collimator
			30751-A	4-12-63	TV Subsystem PCM Decoder
			30749-A	3-13-63	Magnetometer C/O Panel
			MCG-50079-DSN	11-12-63	Magnetometer Mapping Fixtures
--					--

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page ~~51~~ 52

SUBSYSTEM OSE - TELECOMMUNICATIONS (Div. 33)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Radio	33 S. Burke	102	OSE/MC-4-320 MCG-30733-DSN-A MCG-30795-DSN-A 30795-AM-1-A MCG-50272-DSN 50272-AM-1 MCG-50249-TST	6-12-63 5-11-64 10-4-63 11-20-63 2-28-64 3-31-64 1-7-64	Radio S/Sys S-Band Test Set S-Band Test Set S-Band Command Test System Low Gain Antenna Probe Test
Telemetry Data Encoder	33 W. Apel	106	OSE/MC-4-321 MCN-30723-DSN-A 30736 A	6-15-63 6-3-63 2-12-63	Telemetry S/Sys Flt Data Encoder Encoder Simulator
Command	33 A. Spear	103	OSE/MC-4-322 MCG-30728-DSN-B	6-10-63 7-11-63	Command S/Sys Command S/Sys Test Console
Tape Recorder	33 W. Trester	116	**OSE/MC-4-323-A 30763 30763-AM-1	9-21-64 4-4-63 8-12-63	Tape Recorder Video Tape Recorder
RWV	33 R. Lowe	197	OSE/MC-4-325 MCG-30754-DSN-A	6-14-63 8-20-63	Command S/Sys, R, W, & V. Command Sys. Command Read, Write & Verify Subsystems

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 53

SUBSYSTEM OSE - TELECOMMUNICATIONS (Div. 33) (cont)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number (Functional / Design / Detail / Test)	Release Date	Last Line of Title or Comments
Ground Telemetry	33 R. Balluff	199	OSE/MC-4-326	6-17-63	Ground Telemetry System
			30747 A	3-15-63	System Integration Requirements & Restraints
			30756	3-20-63	Telemetry Monitoring System (2 channels)
			30757	3-20-63	Telemetry Monitoring System (1 channel)
			30758	3-19-63	Bit Error Rate Monitor
			MCG-30748-DSN-B	8-29-63	Telemetry Data Decom
			MCG-30761-DSN	8-7-63	Data Demodulator
			MCG-50022-DSN	8-28-63	Mode IV Tele. Format Simulator
Teletype	37	195			

MARINER C DOCUMENTATION ANALYSIS
Specifications Existing and Required, By Assembly

Revision K
Date 27 January 1965
Page ~~53~~-54

SUBSYSTEM OSE GUIDANCE & CONTROL (Div. 34)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Guidance	343 J. Petralia	107	*OSE/MC-4-410-A MCG-50272-DSN	7-31-64 4-6-64	Attitude Control Subsystem Attitude Control Subsystem Gyros Running Down Alarm Assy
CC&S	343 D. Ross	105 205 305	**OSE/MC-4-450-A	10-6-64	CC&S
Power	343 J. Savino	104 204 304	**OSE/MC-4-460-A	9-28-64	Power Subsystem

MARINER C DOCUMENTATION ANALYSIS

Specifications Existing and Required, By Assembly

Revision K

Date 27 January 1965

Page 34-55

SUBSYSTEM ENGR MECHANICS (Div. 35)

Assembly Nomenclature	Cog Div / Cog Eng	Ref Desig	Specification Number: Functional / Design / Detail / Test	Release Date	Last Line of Title or Comments
Pyrotechnics	357 J. Earnest	108 308	OSE/MC-4-530 *Amendment 1	6-13-63 6-16-64	Pyrotechnic Subsystem

III. SPACE FLIGHT OPERATIONS SYSTEM

27 January 1965

MARINER C SPACE FLIGHT OPERATIONS
SYSTEM DESIGN SPECIFICATIONS

	Title	Specification No.	Release Date
I	INTRODUCTION (Purpose and Scope)	MC/SFO-1-100	3-12-64
II	MISSION OBJECTIVES AND DESIGN CRITERIA	MC/SFO-2-100	3-12-64
III	DESIGN CHARACTERISTICS AND CONSTRAINTS		
	General Terminology	MC/SFO-3-100	3-12-64
	Design Characteristics	MC/SFO-3-101	3-12-64
	Design Constraints	MC/SFO-3-102	3-12-64
IV	FUNCTIONAL SPECIFICATIONS OF OPERATIONAL GROUPS	MC/SFO-4-100	3-12-64
	Space Flight Operations Direction	MC/SFO-4-200	5-12-64
	Space Flight Operations Control	MC/SFO-4-201	5-12-64
	Operational Information	MC/SFO-4-202	3-12-64
	Operational Testing and Analysis	MC/SFO-4-203	3-12-64
	Flight Path Analysis and Command (FPAC)	MC/SFO-4-300	3-12-64
	FPAC Direction	MC/SFO-4-301	3-12-64
	FPAC Computing	MC/SFO-4-302	3-12-64
	Maneuver Analysis	MC/SFO-4-303	3-12-64
	Orbit Determination	MC/SFO-4-304	3-12-64
	Tracking Data Analysis for DSIF	MC/SFO-4-305	*

*Publications waivered - will not be issued

27 January 1965

	Title	Specification No.	Release Date
IV (cont)	Tracking Data Analysis for AMR	MC/SFO-4-306	3-12-64
	Trajectory Operations Group	MC/SFO-4-307	3-12-64
	Spacecraft Performance Analysis and Command (SPAC)	MC/SFO-4-400	3-12-64
	SPAC Organization and Direction	MC/SFO-4-401	*
	SPAC Computing	MC/SFO-4-402	*
	Telecommunications	MC/SFO-4-403	*
	Guidance Control	MC/SFO-4-404	*
	Engineering Mechanics	MC/SFO-4-405	3-12-64
	Propulsion Analysis	MC/SFO-4-406	3-12-64
	Space Science Analysis	MC/SFO-4-407	5-12-64
	Space Science Analysis and Command (SSAC)	MC/SFO-4-500	3-12-64
	SSAC Organization and Direction	MC/SFO-4-501	3-12-64
	SSAC Computing	MC/SFO-4-502	3-12-64
	Cruise Science Analysis	MC/SFO-4-503	3-12-64
	Planetary Science Analysis	MC/SFO-4-504	3-12-64
	Release of Scientific Data	MC/SFO-4-505	3-12-64
	Deep Space Instrumentation Facility Control and Monitoring	MC/SFO-4-600	*
	DSIF Tracking Data Monitoring	MC/SFO-4-601	*
	DSIF Telemetry Data Monitoring	MC/SFO-4-602	*

*Publications waivered - will not be issued

27 January 1965

	Title	Specification No.	Release Date
IV (cont)	Space Flight Operations Facility Control and Monitoring	MC/SFO-4-700	3-12-64
	Data Processing Coordination and Control	MC/SFO-4-710-	5-12-64
	Communications Control	MC/SFO-4-720	5-12-64
	Facility Support	MC/SFO-4-730	3-12-64
	Atlas Missile Range Coordination	MC/SFO-4-800	*
V	FUNCTIONAL SPECIFICATIONS OF EQUIPMENT	MC/SFO-5-100	3-12-64
	DSIF	MC/SFO-5-200	*
	Ground Command Subsystem	MC/SFO-5-201	*
	Ground Telemetry Subsystem	MC/SFO-5-202	*
	Test Tapes	MC/SFO-5-203	*
	Operational Ground Communications	MC/SFO-5-300	3-12-64
	High-Speed Data Formatter	MC/SFO-5-301	5-12-64
	SFOF	MC/SFO-5-400	5-12-64
	Telemetry Processing Station	MC/SFO-5-401	3-12-64
VI	FUNCTIONAL SPECIFICATIONS OF COMPUTER PROGRAMS	MC/SFO-6-100	5-12-64
	Basic Data Processing	MC/SFO-6-200	5-12-64
	Flight Path Analysis Programs	MC/SFO-6-300	*
	Space Trajectories	MC/SFO-6-301	3-12-64
	Tracking Data Editing	MC/SFO-6-302	3-12-64
	Tracking Data Analysis	MC/SFO-6-303	*

* Publications waivered - will not be issued

27 January 1965

	Title	Specification No.	Release Date
VI (cont)	Utility Orbit Determination	MC/SFO-6-304	3-12-64
	Midcourse Guidance Operations Program	MC/SFO-6-305	3-12-64
	Powered Flight	MC/SFO-6-306	3-12-64
	Spacecraft Performance Analysis	MC/SFO-6-400	*
	Space Science Analysis	MC/SFO-6-500	*
	Mission Evaluation, Control, and Information	MC/SFO-6-600	*
	Mission Evaluation and Status Summary	MC/SFO-6-610	3-12-64
	Mission Total History Tape Update	MC/SFO-6-611	3-12-64

*Publications waivered - will not be issued

APPENDIX C

Mariner Mars 1964 Drawing Lists

The *Mariner C Policy and Requirements* document called for the preparation of other major classes of internal documentation and reports at times appropriate to the status of design or hardware evolution. Two drawing lists representative of the type compiled and issued periodically throughout the lifetime of the project are contained in this appendix.

I. *MARINER* MARS 1964 DRAWING LIST: FLIGHT OFFSET

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 1 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
				MARINER C FINAL LISTS				
	REORDER NOS.							
	JPL 65-409			FLIGHT OFFSET				
	JPL 65-410			FLIGHT NUMERICAL				
	JPL 65-411			OSE NUMERICAL				
	JPL 65-412			OSE NUMERICAL X DIVISION				

JPL 1357 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 2 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	4101300		C	SPACECRAFT ASSY	L		1	000100
	DS 82			SCREW-INTERNAL WRENCHING	L	4101300	2	000110
J	4101301		A	EQUIPMENT ASSEMBLY	L	4101300	2	000200
	DS 82			SCREW-INTERNAL WRENCHING	L	4101301	3	000210
J	4101302		A	STRUCTURE ASSEMBLY	L	4101301	3	000300
J	4101303		C	OCTAGONAL STRUCTURE ASSY	L	4101302	4	000400
A	90410			HUCK BLIND RIVETS	L	4101303	5	000500
J	4101310		D	RING UPPER STRUCTURE	L	4101303	5	000600
C	90455			PROCESS REQ MAG FORGINGS	L	4101310	6	000700
J	4101311		C	SUPPORT ASSY UPRIGHT	L	4101303	5	000800
B	4101312		A	PIN LOCATING ELECTRONIC	L	4101303	5	000900
J	4101313		B	FRAME SUPPORT OCTAGONAL	L	4101303	5	001000
C	90455			PROCESS REQ MAG FORGINGS	L	4101313	6	001100
D	4101314			FITTING DIAGONAL	L	4101303	5	001200
D	4101315		A	FITTING DOUBLE	L	4101303	5	001300
C	4101316			TUBE OCTAGONAL STRUCTURE	L	4101303	5	001400
J	4101317		D	RING BOT STRUCTURE ASSY	L	4101303	5	001500
C	90455			PROCESS REQ MAG FORGINGS	L	4101317	6	001600
B	4101318			CLEVIS OCTAGONAL STRUCT	L	4101303	5	001700
D	4101319		B	BRACKET MID-COURSE	L	4101303	5	001800
C	4101320			FITTING LOWER FRAME SPT	L	4101303	5	001900
C	4101321			FITTING UPPER FRAME SPT	L	4101303	5	002000
D	4101322		A	TUBE OUTER	L	4101303	5	002100
B	4101323			TUBE DIAGONAL	L	4101303	5	002200
D	4101348		A	BRACKET ASSY UMBILICAL	L	4101303	5	002300
D	4101395		A	BEARING ROD END	L	4101303	5	002400
D	4101397		A	STIFFENER UPPER RING	L	4101303	5	002500
C	4101398		A	BRACKET ATTACH	L	4101303	5	002600
C	4101399		A	BRACKET ASSY INFLIGHT	L	4101303	5	002700
4	4101476		B	CHANNEL ASY LOW GAIN ANT	L	4101303	5	002800
B	4600540		A	WASHER HINGE OMNI MAST	L	4101476	6	002900
C	4600541			BKT HINGE OMNI MAST	L	4101476	6	003000
C	4101694		A	STIFFENER CHANNEL ASSY	L	4101476	6	003100
C	4101396		A	NUT HEXAGON SELF	L	4101303	5	003200
D	4101490		A	ANGLE STIFFENER BAY 2	L	4101303	5	003300
C	4101491			BRKT PLASMA MOUNTING	L	4101303	5	003400
B	4101494			SPACER OCTAGONAL STRUCT	L	4101303	5	003500
C	4101495		A	FITTING PRESSURE PAD	L	4101303	5	003600
D	4101609		B	FITTING CLEVIS LOW GAIN	L	4101303	5	003700
J	4101616			PAD INSTL MOUNTING	L	4101303	5	003800

JPL 1357 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 3 DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4101617			PAD CENTER	LX	4101616	6	003900
B	4101619			INSERT PAD ABSORPTIVITY	L	4101617	7	004000
C	4101618			PAD SMALL	LX	4101616	6	004100
B	4101619			INSERT PAD ABSORPTIVITY	L	4101618	7	004200
C	4101729			BRACKET PLUNGER PAD	L	4101303	5	004300
C	4101743			BRACKET SOLAR PANEL	L	4101303	5	004400
DS	110			NUT-PRESS BLIND	L	4101743	6	004410
DS	111			NUT-PRESS BLIND DOME	L	4101743	6	004415
A	90302			SURFACE TREATMENT	L	4101743	6	004420
B	4101746			WASHER ROD END BEARING	L	4101303	5	004500
J	4101304		C	SUPER STRUCTURE	L	4101302	4	004600
A	90302			SURFACE TREATMENT	L	4101304	5	004700
J	4101480		A	TRUSS RING WELDMENT	L	4101304	5	004800
J	4101481		A	RING WELDMENT	L	4101480	6	004900
D	4101482		A	FITTING TRUSS RING	L	4101480	6	005000
A	90302			SURFACE TREATMENT	L	4101482	7	005100
D	4101483		A	CLEVIS SOLAR PANEL DAMPR	L	4101480	6	005200
A	90302			SURFACE TREATMENT	L	4101483	7	005300
D	4101484		A	PAD MTG ANTENNA TRUSS	L	4101480	6	005400
A	90302			SURFACE TREATMENT	L	4101484	7	005500
C	4101485			CLEVIS OMNI DAMPER	L	4101480	6	005600
A	90302			SURFACE TREATMENT	L	4101485	7	005700
D	4101489			BRACKET CONNECTOR	L	4101304	5	005800
C	4101496			BRACKET MOUNTING	L	4101304	5	005900
D	4101572			FAIRLEAD CABLE	L	4101304	5	006000
D	4101574			FAIRLEAD	L	4101304	5	006100
J	4101325		A	PEDESTAL SUN SENSOR	L	4101302	4	006300
A	90463			PROCESS REG MAG FORGINGS	L	4101325	5	006400
J	4101326		A	PEDESTAL SUN SENSOR	L	4101302	4	006500
A	90302			SURFACE TREATMENT	L	4101326	5	006600
A	90463			PROCESS REG MAG FORGINGS	L	4101326	5	006700
C	4101401		A	BEARING LOWER	L	4101302	5	006725
B	4101415		A	BEARING UPPER	L	4101302	5	006750
J	4101499		A	SHEAR PLATE ASSY BAY 2	L	4101302	4	006800
4	4101497		A	SHEAR PLATE BAY 2 WELD	L	4101499	5	006900
C	4101667			CONNECTOR BRACKET	L	4101302	4	007000
D	4101621			RING LO THERM SHIELD	L	4101302	4	007100
B	4101624			PLUG RING LO THERM SHLD	L	4101621	5	007200
B	4101623			CLAMP LO THERM SHLD RING	L	4101302	4	007300
C	4101625			SPG STRAP LO THERM	L	4101302	4	007400

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 4 DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	4101307		B	FORWARD EQUIP ASSYL	L	4101301	3	007500
DS	[illegible]			SCREW CLOSE TOLERANCE	L	4101307	4	007510
DS	[illegible]			BOLT CLOSE TOLERANCE	L	4101307	4	007515
J	4101420		C	ANT HIGH GAIN ASSEMBLY	L	4101307	4	007600
J	4101435		B	TRUSS FEED SUPPORT	L	4101420	5	007700
C	4101435		A	STUD FEED SUPPORT TRUSS	L	4101435	6	007850
C	4101435			TUBE	L	4101435	6	007900
C	4101440			TUBE	L	4101435	6	008000
D	4101441		C	BRACKET UPPER RIGHT HAND	L	4101435	6	008100
D	4101442		B	FITTING UPPER	L	4101435	6	008200
D	4101443		A	FITTING LOWER	L	4101435	6	008300
D	4101444		B	BRACKET LOWER	L	4101435	6	008400
D	4101445		C	BRACKET UPPER LEFT HAND	L	4101435	7	008500
J	4101436		C	REFLECTOR ASSEMBLY	L	4101420	5	008600
J	4101438		B	REFLECTOR ANT SPECIFICAT	L	4101436	6	008700
D	4101421		A	INSERT WELDED	L	4101436	6	008800
A	90302			SURFACE TREATMENT	L	4101421	7	008900
D	4101422		A	INSERT FLANGED ASSY	L	4101436	6	009000
A	90302			SURFACE TREATMENT	L	4101422	7	009100
D	4101423		A	INSERT WELDED	L	4101436	6	009200
D	4101424		A	INSERT FLANGED ASSEMBLY	L	4101436	6	009300
A	90302			SURFACE TREATMENT	L	4101424	7	009400
D	4101425		A	INSERT ASSEMBLY	L	4101436	6	009500
A	90302			SURFACE TREATMENT	L	4101425	7	009600
C	4101426		A	CAP SHEAR	L	4101436	6	009700
A	90302			SURFACE TREATMENT	L	4101426	7	009800
C	4101427		A	PLATE SHEAR	L	4101436	6	009900
C	4101428		A	PLUG ASSEMBLY	L	4101436	6	010000
C	4101429		A	PLUG ASSEMBLY	L	4101436	6	010100
B	4101430		A	SHIM	L	4101436	6	010200
D	4101434		A	BRACKET INSTALLATION ANT	L	4101436	6	010300
D	4101432			BRKT CLAMP COAXIAL CABLE	L	4101434	7	010400
C	4101433		A	CLAMP COAXIAL CABLE	L	4101434	7	010500
J	4101437		A	SUPPORT TRUSS FRAME	L	4101436	6	010600
A	90302			SURFACE TREATMENT	L	4101437	7	010700
C	90463			PROCESS REG MAG FORGINGS	L	4101437	7	010800
J	4101446			SPT TRUSS TRIPOD ASSY	L	4101436	6	010900
D	4101449		H	FITTING LOWER SUPPORT	L	4101446	7	011000
A	90302			SURFACE TREATMENT	L	4101449	8	011100
C	90463			PROCESS REG MAG FORGINGS	L	4101449	8	011200

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 5 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4101450		A	FITTING UPPER SUPPORT	L	4101446	7	011300
A	90302			SURFACE TREATMENT	L	4101450	8	011400
C	90463			PROCESS REG MAG FORGINGS	L	4101450	8	011500
C	4101451		A	STRUT SUPPORT TRUSS	L	4101446	7	011600
A	90302			SURFACE TREATMENT	L	4101451	8	011700
D	4201820		A	PROBE ASSY HIGH GAIN ANT	L	4101436	6	011800
C	4201821			COAXIAL CABLE	L	4101436	6	011900
B	4101438		A	SPACER	L	4101420	5	012000
D	4201825		A	UNION SPLIT COAX CABLE	L	4101420	5	012100
J	4600550		C	FEED ASSY HI GAIN ANT	L	4101420	5	012200
C	4600548			PIN BULKHEAD CONNECTOR	L	4600550	5	012300
B	4600549			INSULATOR BLUKHEAD CONN	L	4600550	6	012400
J	4600551		A	CHASSIS MACHINED	L	4600550	6	012500
A	90302			SURFACE TREATMENT	L	4600551	7	012600
D	4600552		A	CONDUCTOR OUTER FEED	L	4600550	6	012700
A	90302			SURFACE TREATMENT	L	4600552	7	012800
C	4600553		A	CONDUCTOR CENTER FEED	L	4600550	6	012900
C	4600554		A	BODY BULKHEAD CONNECTOR	L	4600550	6	013000
B	4600555			SCREW	L	4600550	6	013100
J	4600556		B	CB FEED HI GAIN ANTENNA	L	4600550	6	013200
J	4600587			CB9 PC FEED	L	4600556	7	013300
D	4600557		B	GROUND PLANE FEED	L	4600550	6	013400
B	4600558			RING REINFORCEMENT	L	4600550	6	013500
B	4600562		A	CAP REINFORCEMENT	L	4600550	6	013700
J	4900563		A	CABLE COAXIAL RW3	L	4101420	5	013800
C	4901150			SPACER COAXIAL CABLE	L	4101420	5	013900
J	SC-100		A	CONTAINER ASSY MC ANT	V	4101420	5	014200
J	SC-101		A	BASE CASTING CONTAINER	V	SC-100	6	014300
J	SC-102			HOOD-CONTAINER MC ANT	V	SC-100	6	014400
J	SC-103			MOUNTING PLATE-CASTING	V	SC-100	6	014500
4	4101575		B	BOOST DAMPER ASSEMBLY	L	4101307	4	017500
C	4101549	CD		ROD END	L	4101575	5	017600
D	4101611			TUBE ASSY INNER	L	4101575	5	017700
C	4101579			SLEEVE LEFT INNER	L	4101611	6	017800
C	4101580		A	TUBE INNER SHLAR PANEL	L	4101611	6	017900
C	4101581		A	SLEEVE RIGHT INNER SOLAR	L	4101611	6	018000
D	4101612			TUBE ASSY OUTER	L	4101575	5	018100
J	4101576		A	SLEEVE OUTER RIGHT SOLAR	L	4101612	6	018200
J	4101577		A	SLEEVE OUTER LEFT SOLAR	L	4101612	6	018300
C	4101578		A	TUBE OUTER SOLAR PANEL	L	4101612	6	018400

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 6 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4101613		B	SPRING ASSY SOLAR	L	4101575	5	018500
C	4101582		B	PLUG SOLAR PANEL	L	4101613	6	018600
C	4101583		A	SPRING SOLAR PANEL	L	4101613	6	018700
B	4101664			BOOT SOLAR PANEL DAMPER	L	4101575	5	018800
C	4101666	CD		SEAL SOLAR PANEL DAMPER	L	4101575	5	018900
B	4101663			CLIP SOLAR PANEL DAMPER	L	4101548	4	019000
J	4101680		A	SUPPORT ASSY SOLAR PANEL	L	4101548	4	019100
D	4101614			SPT SOLAR PANEL RETARDER	L	4101680	5	019200
D	4101682			GUSSET SUPPORT	L	4101680	5	019300
C	4101681		B	SUPPORT WELDMENT SOLAR	L	4101548	4	019400
D	4101615		B	SUPPORT SOLAR PANEL	L	4101681	5	019500
D	4101683		A	GUSSET SUPPORT SOLAR PNL	L	4101681	5	019600
C	4101585		B	DAMPER SHORT ASSY	L	4101307	4	019700
C	4101549	CD		ROD END	L	4101585	5	019800
D	4101586			PISTON ASSY	L	4101585	5	019900
C	4101588		A	PLUG PISTON ASSY	L	4101586	6	019920
D	4101593		A	TUBE PISTON	L	4101586	6	020000
B	90433			SURFACE TREATMENT	L	4101593	7	020100
D	4101594		A	FITTING PISTON	L	4101586	6	020200
B	90433			SURFACE TREATMENT	L	4101594	7	020300
D	4101587			TUBE ASSY	L	4101585	5	020400
C	4101589		B	PLUG ASSY TUBE	L	4101587	6	020500
D	4101592			TUBE OUTER	L	4101587	6	020600
A	90353			DULL BLACK ANODIZE	L	4101592	7	020700
C	4101595		B	SPRING ASSY	L	4101585	5	020800
C	4101590			SPRING	L	4101595	6	020900
D	4101591		B	PLUG SPRING	L	4101595	6	021000
B	90433			SURFACE TREATMENT	L	4101591	7	021100
B	4101665			BOOT LOW GAIN ANT DAMPER	L	4101585	5	021200
D	4101600		B	DAMPER LONG ASSY	L	4101307	4	021300
C	4101549	CD		ROD END	L	4101600	5	021400
D	4101601		A	TUBE ASSY	L	4101600	5	021500
D	4101603		A	TUBE OUTER	L	4101601	5	021600
D	4101604		A	TUBE LONG OUTER	L	4101601	6	021700
C	4101607		B	PLUG ASSY TUBE	L	4101601	6	021800
A	90353			DULL BLACK ANODIZE	L	4101607	7	021900
D	4101602			PISTON ASSY	L	4101600	5	022000
C	4101588		A	PLUG PISTON ASSY	L	4101602	6	022100
	DS 109			INSERT-NON-SELF-LOCKING	L	4101588	7	022200
B	90433			SURFACE TREATMENT	L	4101588	7	022300

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 7 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4101594		A	FITTING PISTON	L	4101602	6	022400
D	4101605		A	TUBE PISTON	L	4101602	6	022500
B	90433			SURFACE TREATMENT	L	4101605	7	022600
C	4101610		B	SPRING ASSY	L	4101600	5	022700
D	4101606		B	PLUG SPRING	L	4101610	6	022800
B	90433			SURFACE TREATMENT	L	4101606	7	022900
C	4101608			SPRING	L	4101610	6	023000
B	4101665			BOOT LOW GAIN ANT DAMPER	L	4101600	5	023100
B	4600539		A	BOLT HINGE OMNI MAST	L	4101307	4	023200
J	4600542		C	LOW GAIN ANTENNA	L	4101307	4	023300
A	90302			SURFACE TREATMENT	L	4600542	5	023400
J	4600534		C	MAST BRACKETRY ASSY	L	4600542	5	023500
B	4101798			MONOPOLE	L	4600534	6	023510
A	90302			SURFACE TREATMENT	L	4101798	7	023512
B	4101799			NUT	L	4600534	6	023520
A	90302			SURFACE TREATMENT	L	4101799	7	023525
B	4101800			SUPPRESSOR MAGNETIC	L	4600534	6	023530
J	4600531		C	BRACKET MAGNETOMETER	L	4600534	6	023600
D	4600532		B	BRACKET UPPER ION	L	4600534	6	023700
D	4600533		B	BRACKET DAMPER ASSY	L	4600534	6	023800
D	4600537		B	BRACKET LOWER	L	4600534	6	023900
D	4600579			SHIELD	L	4600534	6	024000
B	4600580			SHIELD THERMAL	L	4600534	6	024100
C	4600583			CLAMP CABLE	L	4600534	6	024200
B	4600582			CLAMP CABLE	L	4600534	6	024300
J	4600585		A	MAST IRIS SUB-ASSEMBLY	L	4600534	6	024400
J	4600535		C	MAST OMNI ANT	L	4600585	7	024500
C	4600543		B	GROUND PLANE LOW GAIN	L	4600585	7	024600
D	4600586			IRIS WAVEGUIDE	L	4600585	7	024700
J	4600469		C	FEED LOW GAIN ANTENNA	L	4600542	5	024800
A	90347			SCREW MACHINE	L	4600469	6	024900
B	4600588			SLUG MATCHING	L	4600469	6	025000
J	4600470		B	CONE SUBASSY L GAIN ANT	L	4600469	6	025100
J	4600473			CONE LOW GAIN ANTENNA	L	4600470	7	025200
B	4600477			GROMMET CONE	L	4600470	7	025300
D	4600471		A	BASE LOW GAIN ANTENNA	L	4600469	6	025400
B	4600472			CONN LOW GAIN ANTENNA	L	4600471	7	025500
C	4600475		B	BODY CONN L GAIN ANTENNA	L	4600472	8	025600
B	4600479			INSULATOR CONNECTOR	L	4600472	8	025700
J	4600474		B	BASE LOW GAIN ANTENNA	L	4600471	7	025800

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 8 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4600476		A	PIN CONNECTOR	L	4600469	6	025900
B	4600478		A	WASHER CONNECTOR FEED	L	4600542	5	026000
B	4600480		A	NUT CONNECTOR FEED	L	4600542	5	026100
B	4900553			CABLE ASSY COAXIAL 2W2	L	4101307	4	026200
C	4901151			SPACER COAXIAL CABLE	L	4101307	4	026210
B	4901154		B	CABLE PREP & INSTL	L	4101307	4	026215
J	4901165			LOWER COAX CABLE ASSY	L	4101307	4	026300
D	4201824		A	CLAMP COAXIAL CABLE	L	4901165	5	026400
D	4201829		A	UNION SPLIT COAX CABLE	L	4901165	5	026500
C	4600561		A	JAM NUT	L	4901165	5	026502
J	4900552		B	CABLE COAXIAL 2W1	L	4901165	5	026505
B	4901154		B	CABLE PREP & INSTL	L	4901165	5	026510
C	4901164		A	SPRING BULLET	L	4901165	5	026600
J	4101500		C	ABSORPTIVITY STANDARD	L	4101301	3	026700
C	90313			STUD LOCK FEMALE	L	4101500	4	026800
C	90314			CONNECTOR INSTL (FM-7)	L	4101500	4	026900
A	90347			SCREW MACHINE	L	4101500	4	027000
D	4101501		B	SAMPLE SUBASSY STANDARD	L	4101500	4	027100
D	4101503			SPT SAMPLE	L	4101501	5	027200
J	4101506		B	SAMPLE CYLINDER	L	4101501	5	027300
A	90302			SURFACE TREATMENT	L	4101506	6	027400
C	4101507		A	COV SAMPLE ABSORPTIVITY	L	4101501	5	027500
J	4101675			THERMOMETER WELDED MOD	L	4101501	5	027600
D	4101673			THERMOSTAT ABSORPTIVITY	L	4101675	6	027700
J	4101674			COMPONENT POS THERM ASSY	L	4101675	6	027800
J	4101688			COMPONENT POS THERM ASSY	L	4101675	6	027900
C	6100383			SPACER ABSORPTIVITY	L	4101675	1	028000
J	4101676			THERMOMETER WELDED MOD	L	4101501	5	028100
D	4101673			THERMOSTAT ABSORPTIVITY	L	4101676	6	028200
J	4101674			COMPONENT POS THERM ASSY	L	4101676	6	028300
J	4101688			COMPONENT POS THERM ASSY	L	4101676	6	028400
J	4101677			THERM WELDED MODULE ASSY	L	4101501	5	028500
D	4101673			THERMOSTAT ABSORPTIVITY	L	4101677	6	028600
J	4101674			COMPONENT POS THERM ASSY	L	4101677	6	028700
J	4101688			COMPONENT POS THERM ASSY	L	4101677	6	028800
J	4101502		B	BASE ASSY ABSORPTIVITY	L	4101500	4	028900
D	4101504		B	COVER ABSORPTIVITY	L	4101500	4	029000
C	4101505			MOUNT ASSY SAMPLE	L	4101500	4	029100
B	4101509			INSULATOR ABSORPTIVITY	L	4101500	4	029200
C	4101510			SHIM ABSORPTIVITY STD	L	4101500	4	029300

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 9 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4101512			CAP TERMINAL ABSORPTIVTY	L	4101500	4	029400
J	4201381		D	ATTITUDE CONTROL GAS	L	4101301	3	029500
	DS 82			SCREW INTERNAL WRENCHING	L	4201381	4	029502
	DS 204			SCREW INTERNAL WRENCHING	L	4201381	4	029503
D	90267			CAP	L	4201381	4	029504
C	90273			WASHER COUNTERSUNK	L	4201381	4	029506
C	90360			SPACER	L	4201381	4	029550
B	4201381	IL	B	ATTITUDE CONTROL	L	4201381	4	029600
J	4201800		B	SHADE ATTITUDE CONTROL	L	4201381	4	029650
D	4201389		B	NOZZLE JET	L	4201381	4	029700
J	4201816			ATT CONT GAS&VANE ACTR	L	4201381	4	029800
	DS 82			SCREW INTERNAL WRENCHING	L	4201816	5	029802
C	90273			WASHER COUNTERSUNK	L	4201816	5	029804
B	IL 4201816	-1		ATT CONT GAS & VANE ACTR	L	4201816	5	029850
B	IL 4201816	-2		ATT CONTROL GAS & VANE	L	4201816	5	029900
J	4201545		B	SOLAR VANE ACTR ASSEMBLY	L	4201816	5	029950
A	90345			SCREW INTERNAL	L	4201545	6	030000
A	90347			SCREW MACHINE	L	4201545	6	030050
D	90568			O RING & GASKET SYDS	L	4201545	6	030100
B	IL 4201545	-1	B	SOLAR VANE ACTUATOR	L	4201545	6	030150
B	IL 4201545	-2	B	SOLAR VANE ACTUATOR ASSY	L	4201545	6	030200
J	4201546			GEAR TRAIN ASSY	L	4201545	6	030250
D	4201547			HOUSING ASSY GEAR TRAIN	L	4201546	7	030300
D	4201552			HOUSING ASSY	L	4201547	8	030350
D	4201550			HOUSING GEAR CLUSTER 1	L	4201552	9	030400
D	4201551			PLATE GEAR HOUSING 1	L	4201552	9	030450
D	4201555			HOUSING GEAR CLUSTER 2	L	4201547	8	030500
C	4201548			BEARING BLANK GEAR HOUSE	L	4201555	9	030550
C	4201549			BEARING BLANK	L	4201555	9	030600
D	4201553			HOUSING GEAR CLUSTER 2	L	4201555	9	030650
D	4201554			PLATE GEAR HOUSING 2	L	4201555	9	030700
D	4201556			GEAR SPUR 1	L	4201546	7	030750
D	4201557			GEAR SPUR 5	L	4201546	7	030800
D	4201558			GEAR SPUR 3	L	4201546	7	030850
D	4201559			GEAR SPUR 4	L	4201546	7	030900
D	4201560			GEAR SPUR 6	L	4201546	7	030950
D	4201561			GEAR SPUR 7	L	4201546	7	031000
D	4201562			GEAR SPUR 8	L	4201546	7	031050
D	4201563			GEAR SPUR 9	L	4201546	7	031100
D	4201564			GEAR SPUR 10	L	4201546	7	031150

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 10 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4201691			GEAR SPUR 2	L	4201546	7	031200
D	4201692	CD		BEARING JEWEL	L	4201546	7	031250
J	4201565		A	HOUSING GEAR TRAIN	L	4201545	6	031300
A	90302			SURFACE TREATMENT	L	4201565	7	031350
D	4201567			CLOSURE PLATE	L	4201545	6	031400
D	4201568			RETAINER SPRING	L	4201545	6	031450
D	4201569		A	SUN GATE UPPER SOLAR	L	4201545	6	031500
D	4201570		A	SUN GATE LOWER	L	4201545	6	031550
D	4201571			TORQUE ASSY	L	4201545	6	031600
A	90346			SCREW INTERNAL	L	4201571	7	031650
D	4201572		A	COUPLER TORQUE ASSY	L	4201571	7	031700
D	4201574			BIMETAL	L	4201571	7	031750
J	4201575		E	MOD-CONT SOLAR VANE	L	4201545	6	031800
J	4201498		E	ROUTING GUIDE-CONTROL	L	4201575	7	031850
D	4201507		B	SCHEM DIAG- CONT SOLAR	L	4201575	7	031900
B	4201575	IL	F	MOD SOLAR VANE CONTROL	L	4201575	7	032000
D	4201576			RING RETAINER MOTOR MTG	L	4201545	6	032050
A	90401			PASSIVATION SS	L	4201576	7	032100
D	4201577	CD		MOTOR ACTUATING	L	4201545	6	032150
J	4201822			COLLAR MOTOR MOUNTING	L	4201545	6	032200
B	4201823			CLAMP MOTOR	L	4201545	6	032250
D	4201839	CD		POTENTIOMETER LIMIT SW	L	4201545	6	032300
C	4201843		A	DAMPER DITHER SOLAR	L	4201545	6	032350
C	4201853			SUPPORT CABLE SOLAR VANE	L	4201545	6	032400
J	4201776		B	ATTITUDE CONTROL GAS SYS	L	4201816	5	032450
	DS 56			UNION FLARED TUBE	L	4201776	6	032452
	DS 84			SCREW HI-TORQUE PANHEAD	L	4201776	6	032500
	DS 88			SCREW HI-TORQUE	L	4201776	6	032550
	DS 204			SCREW INTERNAL WRENCHING	L	4201776	6	032600
D	3262479			SURFACE TEMP TRANSDUCER	L	4201776	6	032700
J	4201382		B	PLATE EQUIPMENT MOUNTING	L	4201776	6	032750
	DS 82			SCREW-INTERNAL WRENCHING	L	4201382	7	032752
C	90273			WASHER COUNTERSUNK	L	4201382	7	032800
C	90342			SEAL METALLIC	L	4201382	7	032850
A	90449			TREAD LUBRICANT	L	4201382	7	032852
D	90568			O RING	L	4201382	7	032900
C	3152162		D	NEEDLE VALVE BLEED	L	4201382	7	032950
B	3154052		C	BACKUP RING TEFLON	L	4201382	7	033000
C	3157660		B	WASHER FLAT	L	4201382	7	033050
J	4201383		C	PLATE EQUIPMENT MOUNTING	L	4201382	7	033100

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 11 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4201385		A	SPIDER NITROGEN TANK	L	4201382	7	033150
C	4201706			STLD SPIDER N TANK	L	4201385	8	033200
D	4201707			SPIDER NITROGEN TANK	L	4201385	8	033250
D	4201386		A	SPACER THERMAL	L	4201382	7	033300
J	4201488		B	TANK SHELL NITROGEN	L	4201382	7	033350
A	90128			SERRATION STANDARD	L	4201488	8	033400
D	4201768		A	TUBING & COMPONENTS	L	4201382	7	033450
C	90189			NUT BULKHEAD	L	4201768	8	033500
C	4200603		B	ELBOW SOCKET WELD L P	L	4201768	8	033550
C	4200609		D	TEE SOCKET WELD LP	L	4201768	8	033600
C	4200611		A	SOCKET WELD L P	L	4201768	8	033650
C	4201615			PRESSURE REGULATOR	L	4201768	8	033660
C	4201616		A	PRESSURE TRANSDUCER	L	4201768	8	033750
C	4201745			PLATE TRANSDUCER MTG	L	4201768	8	033800
C	4201770		A	TUBE TRANSDUCER	L	4201768	8	033850
J	4201832			MANIFOLD VALVE	L	4201382	8	033900
	DS 66			FITTING END STANDARD	L	4201832	9	033905
A	90128			SERRATION STANDARD	L	4201832	9	033910
A	90399			PASSIVATION SS	L	4201832	9	033915
A	90514			INCLUSION DETERMINATION	L	4201832	9	033920
C	4201788		A	TUBE FILTER CONN ASSY	L	4201382	7	034000
A	90401			PASSIVATION SS	L	4201788	8	034020
C	4201775			NUT COUPLING ASSY	L	4201788	8	034050
C	4700744	CD	B	SPRING BELLVILLE	L	4201382	7	034100
J	8200982		A	FILL MANIFOLD ASSY	L	4201382	7	034150
D	90267			CAP	L	8200982	8	034200
A	90449			THREAD LUBRICANT	L	8200982	8	034250
D	90568			O RING	L	8200982	8	034300
B	3154052		C	BACKUP RING TEFLON	L	8200982	8	034350
D	8200738		B	BALL VALVE ASSY	L	8200982	8	034360
J	8200981			BODY FILL MANIFOLD	L	8200982	8	034400
B	8200984			PLUG 304 SS	L	8200981	9	034450
D	8200983			FITTING RETAINER	L	8200982	8	034500
J	8700032		B	FILTER PARTS	L	8200982	8	034550
D	8700050			PLUG	L	8200982	8	034600
C	8700065		A	SPRING CHECK VALVE	L	8200982	8	034650
D	8700066		B	VALVE CHECK	L	8200982	8	034700
D	8200738		B	BALL VALVE ASSY	L	8200982	8	034750
C	8201419			BALL SS	L	8200738	9	034800
J	4201396			BLOCK OGM A/C GAS SYSTEM	L	4201776	6	034810

JPL 1387 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 12 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	IL 4201776	-1	B	ATTITUDE CONTROL	L	4201776	6	034850
B	IL 4201776	-2	B	ATTITUDE CONTROL GAS	L	4201776	6	034900
J	4201777		B	PITCH JETS	L	4201776	6	034950
A	90302			SURFACE TREATMENT	L	4201777	7	035000
D	4201387		B	PITCH JETS WELDMENT	L	4201777	7	035050
C	90273			WASHER COUNTERSUNK	L	4201387	8	035100
A	90302			SURFACE TREATMENT	L	4201387	8	035150
A	90399			PASSIVATION SS	L	4201387	8	035200
D	90568			O RING	L	4201387	8	035250
C	4201384		B	SLEEVE	L	4201387	8	035300
D	4201388		B	MANIFOLD PITCH JETS	L	4201387	8	035350
C	4201617		A	JET VALVE	L	4201387	8	035400
D	8201393			NOZZLE TEST ASSY	L	4201387	8	035450
C	4201395		B	FLEXIBLE TUBE	L	4201777	7	035500
C	4202097			CONVOLUTED TUBE	L	4201395	8	035550
C	4202098			FITTING END SOCKER	L	4201395	8	035600
C	4201394		A	FLEXIBLE TUBE	L	4201777	7	035610
C	4201782		A	ELBOW SOCKET WELD 45	L	4201777	7	035650
C	4201773		A	ELBOW SOCKET WELD 45	L	4201782	8	035700
A	90399			PASSIVATION SS	L	4201773	9	035750
B	4201780			BRACKET SUPPORT ELBOW	L	4201782	8	035800
A	90399			PASSIVATION SS	L	4201780	9	035850
B	4201785		A	CLAMP TUBE SUPPORT	L	4201777	7	035900
C	4202084			TUBE SOLAR PANEL SIDE	L	4201777	7	035950
C	4202085			TUBE PITCH JET ASSEMBLY	L	4201777	7	036000
C	4201775			NUT COUPLING ASSY	L	4202085	8	036050
C	4202087			TUBE SOLAR PANEL PITCH	L	4201777	7	036100
C	4202091			CONVOLUTED TUBE HINGE	L	4201777	7	036150
C	4202088			FITTING END TUBE	L	4202091	8	036200
C	4202089			FITTING END SOCKET	L	4202091	8	036250
C	4202090			CONVOLUTED TUBE	L	4202091	8	036300
J	4201778		B	ROLL&YAW JETS	L	4201776	6	036350
A	90302			SURFACE TREATMENT	L	4201778	7	036400
D	4201392		A	ROLL & YAW JETS	L	4201778	7	036450
C	90273			WASHER COUNTERSUNK	L	4201392	8	036500
A	90302			SURFACE TREATMENT	L	4201392	8	036550
A	90346			SCREW INTERNAL	L	4201392	8	036600
D	90568			O RING	L	4201392	8	036650
C	4201384		B	SLEEVE	L	4201392	8	036700
D	4201393		B	MANIFOLD ROLL&YAW JETS	L	4201392	8	036750

JPL 1387 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 13 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	90302			SURFACE TREATMENT	L	4201393	9	036800
A	90399			PASSIVATION SS	L	4201393	9	036850
C	4201617		A	JET VALVE	L	4201392	8	036900
B	4201850		A	CLAMP CABLE	L	4201392	8	036950
D	8201303			NOZZLE TEST ASSY	L	4201392	8	037000
C	4201394		A	FLEXIBLE TUBE	L	4201778	7	037010
C	4201395		B	FLEXIBLE TUBE	L	4201778	7	037050
C	4202097			CONVOLUTED TUBE	L	4201395	8	037100
C	4202098			FITTING END SOCKER	L	4201395	8	037150
C	4201781		A	ELBOW SOCKET WELD 55	L	4201778	7	037200
C	4201772		A	ELBOW SOCKET WELD 55	L	4201781	8	037250
C	4201779			BRACKET SUPPORT ELBOW	L	4201781	8	037300
A	90399			PASSIVATION SS	L	4201779	9	037350
B	4201785		A	CLAMP TUBE SUPPORT	L	4201778	7	037400
C	4202082			TUBE ROLL & YAW JET ASSY	L	4201778	7	037450
C	4201775			NUT COUPLING ASSY	L	4202082	8	037500
C	4202083			TUBE ROLL PAN ROLL & YAW	L	4201778	7	037550
C	4202084			TUBE SOLAR PANEL SIDE	L	4201778	7	037600
C	4202091			CONVOLUTED TUBE HINGE	L	4201778	7	037650
C	4202088			FITTING END TUBE	L	4202091	8	037700
C	4202089			FITTING END SOCKET	L	4202091	8	037750
C	4202090			CONVOLUTED TUBE	L	4202091	8	037800
D	4201786		B	PIPING LOW PRESSURE	L	4201776	6	037850
D	4202081			TUBE ROLL & YAW JET ASY	L	4201786	7	037900
C	4201775			NUT COUPLING ASSY	L	4202081	8	037950
C	4202086			TUBE PITCH JET ASSEMBLY	L	4201786	7	038000
C	4201775			NUT COUPLING ASSY	L	4202086	8	038050
C	4201774		A	ELBOW SIDE OUTLET	L	4201786	7	038100
A	90399			PASSIVATION SS	L	4201774	8	038150
D	4201803		A	CABLE ASSY	L	4201776	6	038200
B	4900580		C	9W15 W HARNESS	L	4201803	7	038210
B	4900581		B	9W16 W HARNESS	L	4201803	7	038215
B	4201815			CLAMP 1/4 TUBE	L	4201776	6	038250
B	4202075			BRACKET	L	4201776	6	038300
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4201776	6	038350
B	4201818			SHIM LAMINATED	L	4201381	4	038400
C	4202074			CAP ASSY MODIFIED	L	4201381	4	038450
C	90250			NUT CPLG FLARED TUBE	L	4202074	5	038452
A	90353			ANODIZE DULL BLACK	L	4202074	5	038454
C	4202094			TUBE CLAMP SUPPORT	L	4201381	4	038500

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 14 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4202095			CAP ASSY	L	4201381	4	038550
C	4202096			CAP MODIFIED	L	4202095	5	038600
J	4201450		A	DET & SENSORS ORIENT	L	4101301	3	044400
B	4101492		A	BUSHING INSULATING	L	4201450	4	044500
B	4101691	CD		BEARING DAMPER ATTACHMNT	L	4101692	5	044600
B	4101493			WASHER CANOPUS MOUNTING	L	4201450	4	044700
C	4101780			SPACER EARTH DETECTOR	L	4201450	4	044710
	DS 109			INSERT-NON-SELF-LOCKING	L	4101780	5	044715
A	90302			SURFACE TREATMENT	L	4101780	5	044720
J	4201453		F	CANOPUS TRACKER ASSY	L	4201450	4	051000
	DS 83			SCREW	L	4201453	5	051010
A	90347			SCREW	L	4201453	5	051020
A	90348			SCREW	L	4201453	5	051030
J	4201321		B	IMAGE TUBE	L	4201453	5	051100
C	4201317			RING CENTER	L	4201321	6	051200
J	4201328		B	IMAGE TUBE DISSECTOR	L	4201321	6	051300
J	123230			ALIGNING FIXTURE	L	4201328	7	051305
A	123231			BASE	L	123230	8	051310
D	123232			SUPPORT REAR	L	123230	8	051315
D	123233			SUPPORT FRONT	L	123230	8	051320
C	123234			BAR SWIVEL REAR	L	123230	8	051325
C	123235			CLAMP	L	123230	8	051330
C	123236			STOP TUBE	L	123230	8	051335
C	123237			FACE PLATE	L	123230	8	051340
B	123238			SPRING HOUSING	L	123230	8	051345
C	123239			SPRING TENSION	L	123230	8	051350
C	123505			BLOCK PIVOT	L	123230	8	051355
C	123506			BRACE PIVOT	L	123230	8	051360
C	123507			BAR SWIVEL FRONT	L	123230	8	051365
D	123508			FACE PLATE ASSY	L	123230	8	051370
C	123290			CHARGED QUARTZ	L	123508	9	051375
C	123291			MIRROR	L	123290	10	051380
C	123292			MIRROR	L	123508	9	051385
C	123509			PIN FLOATING	L	123230	8	051390
B	123510			GUIDE	L	123230	8	051395
C	123511			SPRING COMPRESSION	L	123230	8	051400
C	123512			RING RETAINING	L	123230	8	051405
B	123513			SUPPORT	L	123230	8	051410
D	123514			BLOCK PIG	L	123230	8	051415
B	123515			SCREW BASE PLATE	L	123230	8	051420

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 15 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	124324			BAR SPACING	L	123230	8	051425
D	4201318			RING REAR	L	4201328	7	051500
C	4201319			RING	L	4201328	7	051600
B	4201327			RING BACK UP	L	4201328	7	051700
J	4201329		J	CANOPUS TRACKER SCHEM	L	4201328	7	051800
D	4201794			DYNODE MODULE	L	4201328	7	051810
J	4201329		J	CANOPUS TRACKER SCHEM	L	4201321	6	051900
C	4201458		A	COVER MODULE	L	4201321	6	052000
C	4201480		A	SHIELD ASSY	L	4201321	6	052100
D	4201330		A	SHIELD TUBE	L	4201480	7	052200
B	4201649		B	INSULATION PAD	L	4201321	6	052300
J	4201329		J	CANOPUS TRACKER SCHEM	L	4201453	5	052400
A	4201329	PL	J	CANOPUS TRACKER SCHEM	L	4201453	5	052410
D	4201489		A	L1 INDUCTOR	L	PL4201329	6	052412
D	4201490			L2 INDUCTOR CANOPUS TRKR	L	PL4201329	6	052420
D	4201619	CD	A	T1 TRANSFORMER	L	PL4201329	6	052435
C	4202092		A	L6 INDUCTOR	L	PL4201329	6	052436
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202092	7	052437
C	4202093		A	T4 TRANSFORMER	L	PL4201329	6	052438
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202093	7	052439
D	4600576		A	SURFACE TEMP TRANSDUCER	L	PL4201329	6	052440
D	4201451		F	CIRCUIT BD 1 ASSY	L	4201453	5	052500
A	90303			TRANSIPAD INSTL	L	4201451	6	052510
C	90447			TERMINAL	L	4201451	6	052520
J	4201329		J	CANOPUS TRACKER SCHEM	L	4201451	6	052600
A	4201329	PL	J	CANOPUS TRACKER SCHEM	L	4201451	6	052605
D	4201489		A	L1 INDUCTOR	L	PL4201329	7	052607
D	4201490			L2 INDUCTOR CANOPUS TRKR	L	PL4201329	7	052615
D	4201619	CD	A	T1 TRANSFORMER	L	PL4201329	7	052630
C	4202092		A	L6 INDUCTOR	L	PL4201329	7	052632
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202092	8	052633
C	4202093		A	T4 TRANSFORMER	L	PL4201329	7	052634
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202093	8	052635
D	4600576		A	SURFACE TEMP TRANSDUCER	L	PL4201329	7	052636
C	4201452		B	PC TB1	L	4201451	6	052700
C	4201701			INSULATION PAD	L	4201451	6	052800
B	4201453	TL		CANOPUS TRACKER M1	L	4201453	5	052810
J	4201455		H	BASE	L	4201453	5	052900
A	90302			SURFACE TREATMENT	L	4201455	6	052910
D	4201464		A	COVER BOTTOM	L	4201453	5	053000

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 16 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	90302			SURFACE TREATMENT	L	4201464	6	053010
D	4201465		C	COVER RIGHT	L	4201453	5	053100
A	90302			SURFACE TREATMENT	L	4201465	6	053110
J	4201466		D	CIRCUIT BD 2 ASSY	L	4201453	5	053200
C	90303			TRANSIPAD INSTL	L	4201466	6	053210
C	90447			TERMINAL	L	4201466	6	053220
C	90448			TERMINAL	L	4201466	6	053230
J	4201329		J	CANOPUS TRACKER SCHEM	L	4201466	6	053300
A	4201329	PL	J	CANOPUS TRACKER SCHEM	L	4201466	6	053400
D	4201489		A	L1 INDUCTOR	L	PL4201329	7	053405
D	4201490			L2 INDUCTOR CANOPUS TRKR	L	PL4201329	7	053410
D	4201619	CD	A	T1 TRANSFORMER	L	PL4201329	7	053425
C	4202092		A	L6 INDUCTOR	L	PL4201329	7	053426
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202092	8	053427
C	4202093		A	T4 TRANSFORMER	L	PL4201329	7	053428
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202093	8	053429
D	4600576		A	SURFACE TEMP TRANSDUCER	L	PL4201329	7	053430
J	4201467		A	PC TB2	L	4201466	6	053500
J	4201468		D	CIRCUIT BD 3 ASSY	L	4201453	5	053600
C	90252			SCREW GUINTLOCK	L	4201468	6	053610
A	90303			TRANSIPAD	L	4201468	6	053620
C	90448			TERMINAL	L	4201468	6	053630
J	4201329		J	CANOPUS TRACKER SCHEM	L	4201468	6	053700
A	4201329	PL	J	CANOPUS TRACKER SCHEM	L	4201468	6	053800
D	4201489		A	L1 INDUCTOR	L	PL4201329	7	053805
D	4201490			L2 INDUCTOR CANOPUS TRKR	L	PL4201329	7	053815
D	4201619	CD	A	T1 TRANSFORMER	L	PL4201329	7	053830
C	4202092		A	L6 INDUCTOR	L	PL4201329	7	053831
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202092	8	053832
C	4202093		A	T4 TRANSFORMER	L	PL4201329	7	053833
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202093	8	053834
D	4600576		A	SURFACE TEMP TRANSDUCER	L	PL4201329	7	053835
J	4201469		B	PC TB3	L	4201468	6	053900
C	4201653			SPACER RELAY MOUNT	L	4201468	6	054000
4	4201470		G	CIRCUIT BD 4 ASSY CANOPU	L	4201453	5	054100
A	90303			TRANSIPAD INSTALLATION	L	4201470	6	054110
C	90447			TERMINAL	L	4201470	6	054120
C	90448			TERMINAL	L	4201470	6	054130
J	4201329		J	CANOPUS TRACKER SCHEM	L	4201470	6	054200
A	4201329	PL	J	CANOPUS TRACKER SCHEM	L	4201470	6	054300

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 17 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4201489		A	L1 - INDUCTOR	L	PL4201329	7	054305
D	4201490			L2 INDUCTOR CANOPUS TRKR	L	PL4201329	7	054310
D	4201619	CD	A	T1 TRANSFORMER	L	PL4201329	7	054325
C	4202092		A	L6 INDUCTOR	L	PL4201329	7	054326
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202092	8	054327
C	4202093		A	T4 TRANSFORMER	L	PL4201329	7	054328
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202093	8	054329
D	4600576		A	SURFACE TEMP TRANSDUCER	L	PL4201329	7	054330
J	4201471		A	PC TB4	L	4201470	6	054400
B	4201648			SHIM TO-18 CASE	L	4201470	6	054410
C	4201701			INSULATION PAD	L	4201470	6	054500
J	4201472		F	CIRCUIT BD & ASSY	L	4201453	5	054600
J	4201329		J	CANOPUS TRACKER SCHEM	L	4201472	6	054700
A	4201329	PL	J	CANOPUS TRACKER SCHEM	L	4201472	6	054800
D	4201489		A	L1 - INDUCTOR	L	PL4201329	7	054805
D	4201490			L2 INDUCTOR CANOPUS TRKR	L	PL4201329	7	054815
D	4201619	CD	A	T1 TRANSFORMER	L	PL4201329	7	054830
C	4202092		A	L6 INDUCTOR	L	PL4201329	7	054831
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202092	8	054832
C	4202093		A	T4 TRANSFORMER	L	PL4201329	7	054833
A	3172895		A	IMPREG & ENCAP PROCEDURE	L	4202093	8	054834
D	4600576		A	SURFACE TEMP TRANSDUCER	L	PL4201329	7	054835
J	4201473		C	PC TB5	L	4201472	6	054900
D	4201482		B	COVER LEFT	L	4201453	5	055000
A	90302			SURFACE TREATMENT	L	4201482	6	055010
D	4201486		B	BAFFLE REAR	L	4201453	5	055100
A	90353			ANODIZE DULL BLACK	L	4201486	7	055110
J	4201650		B	COVER TOP	L	4201453	5	055200
A	90302			SURFACE TREATMENT	L	4201650	6	055210
B	4201652			COVER HOLE	L	4201453	5	055300
D	4201829			OPTICAL ASSY	L	4201453	5	055400
C	4201311		B	LENS SPACER	L	4201829	6	055500
A	90353			ANODIZE DULL BLACK	L	4201311	7	055510
B	4201312			KEEPER RING	L	4201829	6	055600
A	90353			ANODIZE DULL BLACK	L	4201312	7	055610
D	4201462		B	REAR LENS	L	4201829	6	055700
B	4201798			SET SCREW	L	4201829	6	055800
A	90399			PASSIVATE	L	4201798	7	055810
D	4201827			LENS MOUNT INSIDE	L	4201829	6	055900
A	90353			DULL BLACK ANODIZE	L	4201827	7	055910

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 18 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4201828			LENS MOUNTING OUTSIDE	L	4201829	6	056000
D	90353			DULL BLACK ANODIZE	L	4201828	7	056010
J	4201840			COVER BAFFLE	L	4201453	5	056100
J	4201455		H	BASE	L	4201840	6	056200
A	90302			SURFACE TREATMENT	L	4201455	6	056210
C	4201486		B	BAFFLE	L	4201840	6	056300
A	90353			ANODIZE DULL BLACK	L	4201486	7	056310
D	4201836		A	COVER FRONT	L	4201840	6	056400
A	90302			SURFACE TREATMENT	L	4201836	7	056410
A	90537			ANODIC COATING	L	4201836	7	056420
D	90569			MILLING KNIFE EDGES	L	4201836	7	056430
B	4201838			SPACER	L	4201840	6	056500
A	90537			ANODIC COATING	L	4201838	7	056510
J	4201841			COVER BAFFLE	L	4201453	5	056600
J	4201455		H	BASE	L	4201841	6	056700
A	90302			SURFACE TREATMENT	L	4201455	7	056710
C	4201486		B	BAFFLE	L	4201841	6	056800
A	90353			ANODIZE DULL	L	4201486	6	056810
D	4201836		A	COVER FRONT	L	4201841	6	056900
A	90302			SURFACE TREATMENT	L	4201836	7	056910
A	90537			ANODIC COATING	L	4201836	7	056920
D	90569			MILLING KNIFE EDGES	L	4201836	7	056925
B	4201838			BAFFLE	L	4201841	6	057000
D	90569			MILLING KNIFE EDGE	L	4201836	7	057010
A	90537			ANODIC COATING	L	4201838	7	057020
B	4201842			SPACER	L	4201841	6	057100
J	4201852		A	BAFFLE ASSY CANOPUS	L	4201453	5	057200
A	90537			ANODIC COATING	L	4201852	6	057220
D	90569			MILLING METHOD	L	4201852	6	057230
D	4202076			CLAMP TUBE	L	4201453	5	058000
B	4202077			CLAMP TUBE	L	4201453	5	058010
B	4202078			SPACER	L	4201453	5	058020
C	4202079			CLAMP WIRE	L	4201453	5	058030
C	4202080			CLAMP TUBE	L	4201453	5	058040
D	4201610		G	ASSEMBLY SUN GATE	L	4101450	4	059500
C	90462			PHOTOCELL SUN SENSOR	L	4201610	5	059600
D	4200006		D	TERMINAL BOARD ASSY	L	4201610	5	059700
A	90458			THIN FILM ADHESIVE BOND	L	4200006	6	059800
B	4200042		A	PLATE RETAINER SUN GATE	L	4201610	5	059900
J	4201606		D	HOUSING SUN GATE	L	4201610	5	060000

JPL 1367 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 19

DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4201607			SHIELD RIGHT	L	4201610	5	060010
D	4201608			SHIELD LEFT SUN GATE	L	4201610	5	060100
C	4201609			RETAINER	L	4201610	5	060200
B	4201610	IL		SUN GATE ASSEMBLY 7SG7	L	4201610	5	060210
C	4201611		A	APERTURE SUN GATE	L	4201610	5	060300
A	90353			DULL BLACK ANODIZE	L	4201611	6	060400
D	4201612		B	CYLINDER APERTURE TOP	L	4201610	5	060500
C	4201613		A	CYLINDER APERTURE BOTTOM	L	4201610	5	060600
A	90353			DULL BLACK ANODIZE	L	4201613	6	060700
C	4201620			SPANNER WRENCH	L	4201610	5	060800
B	4201784			PAD SUN GATE	L	4201610	5	060900
J	4201635		C	SQUARE ROOT SUN SENSOR	L	4101450	4	061000
B	90254			PHOTOCELL ASSY	L	4201635	5	061100
B	90458			THIN FILM ADHESIVE BOND	L	4201635	5	061200
J	4201618		C	HOUSING THERMAL CONTROL	L	4201635	5	061300
A	90302			SURFACE TREATMENT	L	4201618	6	061400
A	90353			DULL BLACK ANODIZE	L	4201618	6	061500
J	4201639		A	HOUSING	L	4201618	6	061600
B	4201635	IL		SUN SENSOR ASSY PRIMARY	L	4201635	5	061610
J	4201638		C	TERMINAL BOARD ASSY	L	4201635	5	061700
A	90458			THIN FILM ADHESIVE BOND	L	4201638	6	061800
J	4201640		E	SQUARE ROOT SUN SENSOR	L	4101450	4	061900
B	90254			PHOTOCELL ASSY	L	4201640	5	062000
B	90458			THIN FILM ADHESIVE BOND	L	4201640	5	062100
J	4201618		C	HOUSING THERMAL CONTROL	L	4201640	5	062200
D	4201637			PHOTOCELL ASSY	L	4201640	5	062300
D	4201636			HOUSING	L	4201637	6	062310
J	4201638		C	TERMINAL BOARD ASSY	L	4201640	5	062400
B	4201640	IL		SUN SENSOR ASSEMBLY	L	4201640	5	062410
C	4201792		A	BLADE SHTR WELDMENT	L	4201450	4	062500
D	4201802		A	SHTR ASSY SUN CANOPUS	L	4201450	4	062600
D	4201789	CD	B	ROTARY SOLENOID	L	4201802	5	062700
D	4201790			BRKT MTG ROTARY SOLENOID	L	4201802	5	062800
D	4201791			HUB SPRING MOUNTING	L	4201802	5	062900
B	4201793			CLAMP SPRING	L	4201802	5	063000
C	4201797		A	SPRING TORSION SHUTTER	L	4201802	5	063100
B	4201802	IL		SUN SHUTTER ASSY 7CS 8/A	L	4201802	5	063110
B	4201804			WASHER SHUTTER ACTUATOR	L	4201802	5	063200
A	410432		D	PLASTIC SHEET	V	492148	4	063300
J	4201805		B	EARTH DETECTOR ASSY	L	4101450	4	063400

JPL 1867 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 20

DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4201805	IL		EARTH DETECTOR ASSY	L	4201805	5	063410
C	4201806			PHOTOCELL TB ASSY	L	4201805	5	063500
C	4201807			SPACER EARTH DETECTOR	L	4201805	5	063600
C	4201808			BAFFLE EARTH DETECTOR	L	4201805	5	063700
C	4201809			BAFFLE EARTH DETECTOR	L	4201805	5	063800
C	4201810			BAFFLE EARTH DETECTOR	L	4201805	5	063900
C	4201811			BAFFLE EARTH DETECTOR	L	4201805	5	064000
J	4201812		A	BODY EARTH DETECTOR	L	4201805	5	064100
C	4201813			SCREW SHOULDER	L	4201805	5	064200
C	4201814			SHADE SUN EARTH DETECTOR	L	4201805	5	064300
B	4201817			SCREW INTERNAL WRENCHING	L	4201450	4	064400
J	4801071		A	SCIENCE INTEGRATION ASSY	L	4101301	3	064500
J	4101400		B	PLANETARY SCIENCE INST	L	4801071	4	064600
D	4101402			SPLIT BEARING CAP ASSY	L	4101400	5	064800
A	90302			SURFACE TREATMENT	L	4101402	6	064900
D	4101404		A	RETAINER PLANETARY CABLE	L	4101400	5	065000
D	4101487		B	STRUT SUPERSTRUCTURE	L	4101404	6	065100
A	90302			SURFACE TREATMENT	L	4101487	7	065200
C	4101488		A	FITTING STRUT	L	4101404	6	065300
C	4101406			BUSHING	L	4101400	5	065400
D	4101412		B	SW ASSY SCAN INHIBIT	L	4101400	5	065500
C	4101324			SPACER ASSY	L	4101412	6	065600
B	4101403			SHIM LAMINATED PIN PULLR	L	4101412	6	065700
C	4101405			CB SCAN INHIBIT SWITCH	L	4101412	6	065800
C	4101409			BRACKET PIN PULLER	L	4101412	6	065900
C	4101411			ACTUATOR LEAF	L	4101412	6	066000
C	4101414			SHIM LAMINATED	L	4101400	5	066100
J	4101418		D	BRACKET ASSY PLANETARY	L	4101400	5	066300
A	90302			SURFACE TREATMENT	L	4101418	6	066400
A	90410			HUCK BLIND RIVETS	L	4101418	6	066500
J	4101410		A	TORQUE TUBE ASSY	L	4101418	6	066600
A	90302			SURFACE TREATMENT	L	4101410	7	066700
J	4101413		B	SUPPORT NARROW ANGLE	L	4101418	6	066800
J	4101416		C	BRACKET MOUNTING	L	4101418	6	066900
A	90302			SURFACE TREATMENT	L	4101416	7	067000
C	4101736			STIFFENER FLANGE	L	4101416	7	067100
C	4101737			STIFFENER FLANGE	L	4101416	7	067200
D	4101417			STIFFENER	L	4101418	6	067300
A	90302			SURFACE TREATMENT	L	4101417	7	067400
D	4101419		A	BRACKET LATCH PLANETARY	L	4101418	6	067500

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 21 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	90302			SURFACE TREATMENT	L	4101419	7	067600
D	4101645			BRACKET SUPPORT	L	4101418	6	067700
D	4101646			BRACKET SUPPORT	L	4101418	6	067800
J	4101647			RING SUPPORT THERMAL	L	4101418	6	067810
C	4101709			CONNECTOR BRACKET	L	4101418	6	067900
A	90302			SURFACE TREATMENT	L	4101709	7	067910
J	4101724		A	HARNESS HARD-WARE	L	4101400	5	068000
	DS 82			SCREW INTERNAL WRENCHING	L	4101724	6	068010
B	90312			STUD LOCK FEMALE	L	4101724	6	068015
B	90313			MALE LOCK ASSY INSTL	L	4101724	6	068020
D	4201753			NARROW ANGLE MARS GATE	L	4101400	5	068100
B	4201753	IL		MARS GATE ASSY TMGI	L	4201753	6	068110
J	4201754			HOUSING	L	4201753	6	068200
A	90302			SURFACE TREATMENT	L	4201754	7	068300
A	90353			DULL BLACK ANODIZE	L	4201754	7	068400
C	4201755			RING	L	4201753	6	068500
A	90353			DULL BLACK ANODIZE	L	4201755	7	068600
C	4201756			RING REAR RETAINER	L	4201753	6	068700
A	90302			SURFACE TREATMENT	L	4201756	7	068800
C	4201757			PLATE APERTURE	L	4201753	6	068900
A	90353			DULL BLACK ANODIZE	L	4201757	7	069000
C	4201758			LENS	L	4201753	6	069100
J	4201759			BASE	L	4201753	6	069200
A	90302			SURFACE TREATMENT	L	4201759	7	069300
A	90353			DULL BLACK ANODIZE	L	4201759	7	069400
J	4201760			ELECTRONIC ASSY	L	4201753	6	069500
B	4201761			SCHEMATIC DGM	L	4201760	7	069600
A	4201761	PL		NARROW ANGLE MARS GATE	L	4201761	8	069700
J	4201762			POSITIONER WAFER	L	4201760	7	069800
C	4201763			HEADER	L	4201760	7	069900
J	4801264		B	SCAN ACTUATOR ASSY	L	4801400	5	070000
D	460057C		A	SURFACE TEMP TRANSDUCER	L	4801264	6	070100
J	4801265		B	GEAR TRAIN HOUSING	L	4801264	6	070200
A	90346			SCREW INTERNAL	L	4801265	7	070300
D	4801266		A	COVER	L	4801264	6	070400
D	4801267			CLUTCH ASSY	L	4801264	6	070500
D	4801268		A	SHAFT OUTPUT	L	4801267	7	070600
C	4801269			GEAR OUTPUT	L	4801267	7	070700
C	4801270			FRICTION PLATE	L	4801267	7	070800
B	4801271			SHIM FRICTION PLATE	L	4801267	7	070900

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 22 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4801272			PRESSURE PLATE	L	4801267	7	071000
B	4801273			RAMP PLATE	L	4801267	7	071100
B	4801274			SPACER SPRING	L	4801267	7	071200
B	4801300		A	BUSHING MODIFIED	L	4801267	7	071300
C	4801700			THERMAL BOARD 4	L	4801300	8	071400
C	4801275		A	CAM SWITCHING	L	4801264	6	071500
C	4801276		A	COUNTER SHAFT E	L	4801264	6	071600
C	4801277		A	COUNTER SHAFT D	L	4801264	6	071700
C	4801278			COUNTER SHAFT C	L	4801264	6	071800
C	4801279			COUNTER SHAFT B	L	4801264	6	071900
C	4801280			ADJUSTMENT PLATE	L	4801264	6	072000
B	4801282			FILLER SCREW	L	4801264	6	072100
B	4801283			PLUG	L	4801264	6	072200
B	4801284			SWITCH SPACER	L	4801264	6	072300
C	4801288		A	GEAR INPUT	L	4801264	6	072400
C	4801289			GEAR NUMBER 3	L	4801264	6	072500
C	4801292			GEAR POTENIOMETER	L	4801264	6	072600
C	4801293		A	BRACKET	L	4801264	6	072700
B	4801301		A	BUSHING MODIFICATION	L	4801264	6	072800
C	4801302			ANTI-BACKLASH	L	4801264	6	072900
D	4801448		A	PLANETARY SCAN ACT SCHEM	L	4801264	6	073000
C	4801449			CB PLANET SCAN ACTUATOR	L	4801264	6	073100
B	4801606			GEAR 65T 64P MODIFIED	L	4801264	6	073200
B	4801619			SHIM BEARING PRELOAD	L	4801264	6	073300
J	4801390		G	SCIENCE COVER ASSEMBLY	L	4101400	5	073400
D	4101806			SCI DEPLOYMENT SPG INSTL	L	4801390	6	073420
	DS 88			SCREW HI-TORQUE CSK HEAD	L	4101806	7	073425
D	4801394		B	SPRING HINGE ASSY	L	4101806	7	073430
C	4801396		B	SHAFT HINGE ASSY	L	4101806	7	073440
A	90302			SURFACE TREATMENT	L	4801396	8	073442
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
J	4801391		C	PLATE SCIENCE COVER	L	4801390	6	073500
A	90302			SURFACE TREATMENT	L	4801391	7	073510
D	4801393		F	BRACKET SCIENCE COVER	L	4801390	6	073600
A	90302			SURFACE TREATMENT	L	4801393	7	073610
C	4801395		B	DAMPING SPRING SCIENCE	L	4801390	6	073800
C	4801397			BUSHING SCIENCE COVER	L	4801390	6	074000
C	4801398			GROMMET SCIENCE COVER	L	4801390	6	074100
C	4801403		A	COVER ASSY VIDICON	L	4801390	6	074200
C	4801397			BUSHING SCIENCE COVER	L	4801403	7	074300

JPL 1387 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

MARINER C OFFSET — PAGE 23 — DATE LISTED 08/27/65

DRAWING LIST, OFFSET

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4801398			GROMMET SCIENCE COVER	L	4801403	7	074400
C	4801404		A	MOUNTING FLANGE VIDICON	L	4801403	7	074500
C	4801405		A	CUSHION VIDICON CAMERA	L	4801403	7	074600
C	4801406			INNER COVER VIDICON CAM	L	4801403	7	074700
C	4801571			CB1 VID CAMERA COVER	L	4801406	8	074800
C	4801572		A	SCHEM SCIENCE COVER	L	4801571	9	074900
C	4801573			CB1 PC VIDICON CAMERA	L	4801571	9	075000
C	4801407			OUTER COVER VIDICON CAM	L	4801403	7	075100
C	4801572		A	SCHEM SCIENCE COVER	L	4801403	7	075200
C	4801560		B	CATCH LATCH	L	4801390	5	075300
B	4801568			TBP SCIENCE COVER	L	4801390	6	075400
C	4801572		A	SCHEM SCIENCE COVER	L	4801568	7	075500
B	4801570		A	LAMP HOUSING ASSY	L	4801390	6	075600
B	4801569			LAMP HOUSING	L	4801570	7	075700
C	4801572		A	SCHEM SCIENCE COVER	L	4801390	5	075800
C	4801615		A	COVER PLANET SENSOR ASSY	L	4801390	5	075900
A	90302			SURFACE TREATMENT	L	4801615	7	076000
C	4801734			STIFFENER COVER ASSEMBLY	L	4801615	7	076100
A	90302			SURFACE TREATMENT	L	4801734	8	076110
B	4801616			LID PLANET SENSOR	L	4801390	6	076200
B	4801618			TBB SCIENCE COVER	L	4801390	6	076300
C	90448			TERMINAL	L	4801616	7	076400
C	4801572		A	SCHEM SCIENCE COVER	L	4801618	7	076500
D	4801697			DEPLOYMNT INDICATOR INST	L	4801390	6	076600
C	4801696			ACTUATOR	L	4801697	7	076700
A	90302			SURFACE TREATMENT	L	4801731	7	076810
J	4801558		B	LATCH SCIENCE COVER	L	4101400	5	076900
B	4801559			PLUNGER NOSE SOLENOID	L	4801558	6	077000
C	4801575		A	SOLENOID PUSHTYPE	L	4801558	6	077100
C	4801605		A	LATCH RELEASE	L	4801558	6	077200
C	4801610			LANYARD SCIENCE COVER	L	4101400	5	077300
B	4101407			LINK LATCH	L	4801610	6	077400
B	4101408			PIN HINGE	L	4801610	6	077500
J	4801612		D	SCIENTIFIC INSTR INSTL	L	4101400	5	077600
D	4801210		B	PLANETARY SENSOR ASSY	L	4801612	6	077700
J	4801187		C	PLANETARY SENSOR SCHEM	L	4801210	7	077800
A	4801187	PL	C	PLANETARY SENSOR 31A1	L	4801187	8	077900
C	4801294	CD	A	OPTICS HOUSING SHORT	L	4801210	7	078000
D	4801342			CB3 ASSY DETECTOR	L	4801210	7	078100
D	4801341			PC CB3 DETECTOR	L	4801342	8	078200

JPL 1867 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

MARINER C OFFSET — PAGE 24 — DATE LISTED 08/27/65

DRAWING LIST, OFFSET

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4801347		C	PREAMPLIFIER SUBASSY	L	4801210	7	078300
B	90312			STUD LOCK FEMALE	L	4801347	8	078400
C	90314			CONNECTOR INSTL DEM-9	L	4801347	8	078500
C	4801295			CHOPPER PREAMPLIFIER	L	4801347	8	078600
C	4801349		A	HOUSING CHOPPER PREAMP	L	4801295	9	078700
A	90302			SURFACE TREATMENT	L	4801349	10	078800
J	4801344		B	CB1 ASSY PREAMPLIFIER	L	4801347	8	078900
C	90448			TERMINAL	L	4801344	9	079000
J	4801343			PC CB1 PREAMPLIFIER	L	4801344	9	079100
J	4801346		A	CB2 ASSY PREAMPLIFIER	L	4801347	8	079200
C	90448			TERMINAL	L	4801346	9	079300
J	4801345			PC CB2 PREAMPLIFIER	L	4801346	9	079400
D	4801348		C	CHASSIS PREAMPLIFIER	L	4801347	8	079500
B	4801350			COVER CHOPPER	L	4801347	8	079600
A	90302			SURFACE TREATMENT	L	4801350	9	079700
C	4801351			CB5 ASSY PREAMPLIFIER	L	4801347	8	079800
C	90448			TERMINAL	L	4801351	9	079900
C	4801357			PC CB5 PREAMPLIFIER	L	4801351	9	080000
C	4801352			CB6 PREAMPLIFIER	L	4801347	8	080100
A	90448			TERMINAL	L	4801352	9	080200
C	4801358			PC CB6 PREAMPLIFIER	L	4801352	9	080300
D	4801354			CB4 ASSY PREAMPLIFIER	L	4801347	8	080400
C	90448			TERMINAL	L	4801354	9	080500
C	4801355			PC CB4 PREAMPLIFIER	L	4801354	9	080600
D	4801353		C	COVER PREAMPLIFIER	L	4801210	7	080700
A	90302			SURFACE TREATMENT	L	4801353	8	080800
D	4801356		C	DETECTOR HOUSING 31A1	L	4801210	7	080900
A	90401			PASSIVATION SS	L	4801356	8	081000
C	4801359			MOUNT ASSY DETECTOR	L	4801210	7	081100
C	4801361			HOLDER CELL DETECTOR	L	4801359	8	081200
B	4801447	CD		SENSOR ASSY	L	4801359	8	081300
J	4801623		A	SUBCHASSIS VIDICON CAMR	L	4801612	6	081750
J	4801750			VIDICON CAMERA HEADASSY	L	4801612	6	081800
	DS 78			STUD LOCKING FEMALE CONN	L	4801750	7	081810
C	90314			CONNECTOR INSTL DEM-9	L	4801750	7	081815
D	4800925		D	OPTICS SUBASSY	L	4801750	7	082000
D	4800900		C	LATCHING SHUTTER ASSY	L	4800925	8	082100
D	4800901		B	BASE PLATE SHUTTER ASSY	L	4800900	9	082200
D	4800902		A	BRIDGE SHUTTER ASSY	L	4800900	9	082300
D	4800906		B	LINK SHUTTER ASSY	L	4800900	9	082400

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 25 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4800904			FILTER SHUTTER ASSY	L	4800900	9	082500
D	4800905			FILTER CLIP SHUTTER	L	4800900	9	082600
C	4800910			GUIDE SHUTTER ASSY	L	4800900	9	082700
B	4800911			BUSHING SHUTTER ASSY	L	4800900	9	082800
B	4800915			PIN SHUTTER ASSY	L	4800900	9	082900
C	4800912			LATCH ASSY SHUTTER	L	4800900	9	083000
B	4800913		A	SWIVEL LATCH SHUTTER ASY	L	4800900	9	083100
C	4800914		A	SWITCH ACTUATOR	L	4800900	9	083200
B	4800916			SHEEL SHUTTER ASSY	L	4800900	9	083300
B	4800917		B	SW SPRING SHUTTER ASSY	L	4800900	9	083400
C	4800918		B	LATCH SPRING SHUTTER ASY	L	4800900	9	083500
C	4800919		A	LINK SPRING SHUTTER ASSY	L	4800900	9	083600
C	4800920			SHAFT SAUTTER ASSY	L	4800900	9	083700
B	4800921		A	PIN SHUTTER ASSY	L	4800900	9	083800
D	4800922		B	ROTARY SOLENOID	L	4800900	9	083900
C	4801317		A	DISC ASSY SHUTTER ASSY	L	4800900	9	084000
D	4800903		C	DISC SHUTTER ASSY VIDICON	L	4801317	10	084100
B	4801316			PIN SHUTTER ASSY	L	4801317	10	084200
B	4801803			SPOOL SHUTTER ASSY	L	4800900	9	084220
B	4800909		A	CLAMP VIDICON CAMERA	L	4800925	8	084300
B	4800923		A	POST	L	4800925	8	084400
B	4800924			SPRING VIDICON CAMERA	L	4800925	8	084500
D	4800926		B	MIRROR SET VIDICON	L	4800925	8	084600
D	4800927		B	CAGE	L	4800925	8	084700
D	4800928		C	SPIDER VIDICON CAMERA	L	4800925	8	084800
B	4800930		A	PIN VIDICON CAMERA	L	4800925	8	084900
B	4800931			SPACER VIDICON CAMERA	L	4800925	8	085000
D	4800932			PIN VIDICON CAMERA	L	4800925	8	085100
H	4800934			WASHER VIDICON CAMERA	L	4800925	8	085200
C	4800933			SHIELD	L	4800925	8	085300
B	4800935			PIN VIDICON CAMERA	L	4800925	8	085400
D	4801624			BASE VIDICON CAMERA	L	4800925	8	085500
J	4801103		C	TV CAMERA HD SCHEMATIC	L	4801750	7	085600
A	4801103	PL	C	VIDICON CAMERA HEAD	L	4801103	8	085700
J	4801105		C	CB1 ASSY TV CAMERA HEAD	L	4801621	7	085800
D	4801106		C	CB2 110 KC OSCILLATOR	L	4801750	7	085900
D	4801107		B	CB3 VIDICON CAMERA HEAD	L	4801750	7	086000
D	4801108		C	CB4 VIDICON CAMERA HEAD	L	4801750	7	086100
C	4801112		B	CB4 PC VIDICON CAMERA HD	L	4801108	8	086200
C	4801617		B	TUBE SHIELD VIDICON TUBE	L	4801750	7	086400

JPL 1387 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 26 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4801631			VIDICON TUBE ASSY 36A2	L	4801750	7	087100
D	4801611	CD	A	VIDICON TUBE	L	4801631	8	087200
D	4801632		A	SHIELD VIDICON CAMERA HD	L	4801750	7	087400
C	4801684			CASE TRANSFORMER	L	4801750	7	087600
C	4801685			COVER TRANSFORMER	L	4801750	8	087610
D	4801751			BASE	L	4801750	7	087620
A	90302			SURFACE TREATMENT	L	4801751	8	087622
A	90353			ANODIZE DULL BLACK	L	4801751	8	087624
D	4801752			SADDLE	L	4801750	7	087630
D	4801755			CENTER BLOCK	L	4801750	7	087650
C	4801756			CONTACT RING	L	4801750	7	087670
C	4801757			RETAINER CENTER BLOCK	L	4801750	7	087680
D	4801758			PRESSURE BLOCK	L	4801750	7	087690
B	4801760			SOCKET SPACER	L	4801750	7	087700
C	4801761			SOCKET CLAMP	L	4801750	7	087720
C	4801762			BEARING PLATE	L	4801750	7	087740
B	4801763			BEARING PLATE COVER	L	4801750	7	087760
B	4801764			SPRING	L	4801750	7	087780
B	4801765			SPACER	L	4801750	7	087800
B	4801766			SHIM CLAMP	L	4801750	7	087820
B	4801767			SHIM	L	4801750	7	087840
B	4801768			VIDICON SUPPORT	L	4801750	7	087850
B	4801769			TUBE SOCKET MOD	L	4801750	7	087860
B	4801770			SHIM WASHER	L	4801750	7	087880
C	4801771			LOCATOR BASE	L	4801750	7	087900
C	4801775			HOLDER ASSEMBLY	L	4801750	7	087920
C	4801772			HOLDER SPRING	L	4801775	8	087940
B	4801773			SPRING	L	4801775	8	087960
B	4801774			SPRING BLOCK	L	4801775	8	087980
B	4801776			GROUND CLAMP	L	4801750	7	088000
B	4801777			CLAMP BLOCK	L	4801750	7	088020
B	4801778			SUPPORT RING	L	[illegible]	[illegible]	[illegible]
C	4801779			TUBE ADJUSTMENT ASSY	L	4801750	7	088030
B	4801753		A	MOUNT	L	4801779	8	088040
A	90353			ANODIZE DULL BLACK	L	4801753	9	088042
C	4801754		A	SEAT	L	4801779	8	088050
J	4801787		A	SPLITS ASSEMBLY	L	4801612	6	088060
A	90346			SCREW INTERNAL	L	4801787	7	088062
C	4801782			BOX ASSY BALLAST	L	4801787	7	088065
A	90302			SURFACE TREATMENT	L	4801782	8	088066

JPL 1387 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 27 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4801783			COVER FORWARD	L	4801787	7	088067
A	90302			SURFACE TREATMENT	L	4801783	8	088068
J	4801784			BODY FORWARD SPITS	L	4801787	7	088069
A	90302			SURFACE TREATMENT	L	4801784	8	088070
D	4801785			BODY AFT	L	4801787	7	088071
A	90302			SURFACE TREATMENT	L	4801785	8	088072
D	4801786			COVER AFT SPITS ASSY	L	4801787	7	088073
B	90312			STUD LOCK FEMALE	L	4801786	8	088074
C	90314			CONNECTOR INSTL DEM-9	L	4801786	8	088075
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4801786	8	088076
C	4801788			COVER AFT SPITS	L	4801786	8	088077
A	90302			SURFACE TREATMENT	L	4801788	9	088080
B	4900560		A	9W23 WIRING HARNESS	L	4101400	5	088092
B	4900577		A	9W31 CABLE ASSEMBLY	L	4101400	5	088094
J	4901073			CABLE STRAIN RELIEF ASSY	L	4101400	5	089900
B	4901074		A	CABLE RESTRAINT	L	4101400	5	090000
D	4901075		A	MOUNT SCAN ACTUATOR	L	4101400	5	090100
B	4901076			STRAP CABLE CLAMP	L	4101400	5	090200
B	4901077		A	INSERT CABLE CLAMP	L	4101400	5	090300
J	4801609		D	SCIENTIFIC INSTRUMENTS	L	4801071	4	090500
B	4600578			WASHER INSULATING	L	4801609	5	090600
J	4801224		C	COSMIC DUST DETECTOR	L	4801609	5	090700
A	90302			SURFACE TREATMENT	L	4801224	6	090800
J	GF2002		E	ELECTRICAL INTERFACE	V	4801224	6	090900
D	GD2003		D	CABLING DIAG UNIT 24	V	4801224	6	091000
D	GD2004		D	100 KC AMPL SCHEMATIC	V	4801224	6	091100
D	GD2006		D	8 LEVEL PHA	V	4801224	6	091200
B	GB2007		C	OUTPUT MODULES	V	4801224	6	091300
J	GJ2008		F	BLOCK DIAG & SCHEMATIC	V	4801224	6	091400
C	GC2009			TIMING DIAGRAM	V	4801224	6	091500
J	GF2010		A	MARINER C BREADBOARD	V	4801224	6	091600
B	GB2012			SCHEMATIC BISTABLE	V	4801224	6	091700
B	GB 2013			SCHEMATIC BISTABLE	V	4801224	6	091800
B	GB2014			SCHEMATIC BISTABLE	V	4801224	6	091900
B	GB2015			SCHEMATIC MONOSTABLE	V	4801224	6	092000
B	GB2016			SCHEMATIC DUAL INVERTER	V	4801224	6	092100
B	GB2017			SCHEMATIC SHIFT LINE	V	4801224	6	092200
B	GB2018			SCHEMATIC NAND LOGIC	V	4801224	6	092300
B	GB2019			SCHEM NAND LOGIC GATE	V	4801224	6	092400
B	GB2020			SCHEMATIC PARALLEL NAND	V	4801224	6	092500

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 28 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	GB2021			SCHEMATIC NAND&PARALLEL	V	4801224	6	092600
B	GB2022			SCHEMATIC DUAL OR MOD	V	4801224	6	092700
B	GB2023			SCHEMATIC DUAL&DRIVER	V	4801224	6	092800
B	GB2024		A	SCHEMATIC 5KC CLOCK MOD	V	4801224	6	092900
B	GB2025			SCHEM COMPARATOR MOD	V	4801224	6	093000
B	GB2026			SCHEMATIC OUTPUT MOD	V	4801224	6	093100
B	GB2027		A	SCHEMATIC FILM TRIGGER	V	4801224	6	093200
B	GB2028			SCHEMATIC PWR SUPPLY MOD	V	4801224	6	093300
B	GB2029			SCHEMATIC INHIBIT 1 2	V	4801224	6	093400
B	GB2030		A	SCHEMATIC RESISTOR	V	4801224	6	093500
D	GD2031		A	MASK	V	4801224	6	093510
B	GB2032		A	BUSHING INSULATING	V	4801224	6	093520
B	GB2033		A	HI SPEED THIN FILM AMPL	V	4801224	6	093525
B	GB2034			BUSHING SHOULDERED	V	4801224	6	093530
B	GB2035			PAD SHOCK	V	4801224	6	093535
	GF1107063		B	COSMIC DUST DETECTOR ASY	V	4801224	6	093600
J	GF1107064		D	CAP IMPACT PLATE ASSY	V	4801224	6	093700
	GD1107068		J	IMPACT PLATE	V	4801224	6	093800
	GD1107070		D	BOTTOM COVER	V	4801224	6	093900
	GD1107071		H	TOP COVER	V	4801224	6	094000
	GC1107072		F	CABLE RACEWAY	V	4801224	6	094100
	GC1107073		C	COVER CRYSTAL	V	4801224	6	094200
	GC1107074		A	TERMINAL BOARD	V	4801224	6	094300
	GD1107078		F	CHASSIS BOT & RIGHT SIDE	V	4801224	6	094400
	GC1107079		A	COVER CRYSTAL	V	4801224	6	094500
	GD1107091		B	MASK	V	4801224	6	094600
	GD1107092		C	CAPACITOR IMPACT PLATE	V	4801224	6	094700
	GC1107096		C	PAD SHOCK	V	4801224	6	094800
D	GD1107103		A	MASK CAPACITOR IMPACT	V	4801224	6	094900
C	GC1107111			CLAMP	V	4801224	6	095000
B	GB1107118		B	BRACKET END THERMAL	V	4801224	6	095010
B	GB1107119		B	BRACKET CENTER THERMAL	V	4801224	6	095015
B	GB1107142			INSULATOR SHOULDERED	V	4801224	6	095020
J	4801225	CD	D	RADIATION DETECTOR 25A1	L	4801609	5	095100
B	90433			SURFACE TREATMENT	L	4801225	6	095200
A	2801SEP		I	INSERT	V	2825	7	095500
B	2819SEP			BOARD BLANK	V	2825	7	095600
B	2819SEP			BOARD BLANK	V	2821	8	095800
A	2974SEP			WIRE HOLDING BRIDGE	V	2821	8	096000
2	2819SEP			BOARD BLANK	V	2822	8	096200

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 29 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPP COL	SEQUENCE NUMBER
E	33-0001			SUBASSY SUBCHASSIS	V	4801225	6	096700
C	33-0002		A	COVER BOTTOM SUBCHASSIS	V	4801225	6	096800
C	33-0003		A	COVER TOP SUBCHASSIS	V	4801225	6	096900
A	33-0004			SPACER ELECT UNIT 25	V	4801225	6	097000
C	33-0005			GROMMET SPECIAL UNIT 25	V	4801225	6	097100
B	33-0006			GASKET SPECIAL UNIT 25	V	4801225	6	097200
A	33-0008			THERMINAL SPEC UNIT 25	V	4801225	6	097300
D	33-1001			CONFIGURATION-EXTERNAL	V	4801225	6	097400
C	33-1002		A	POWER SUPPLY UNIT 25	V	4801225	6	097500
E	33-1003		B	ASSY SUBCHASSIS-UNIT 25	V	4801225	6	097600
B	35-0023		A	SUBASSY CAP PROTECTIVE	V	33-1003	7	097700
B	35-0015		A	CAP PROTECTIVE TYPE 6	V	35-0023	8	097800
B	35-0024		A	HOLDER SOURCE	V	33-1003	7	097900
B	37-0017			SUBASSY MOUNT	V	33-1003	7	098000
D	37-1001			ASSY PN JUNCTION TYPE 1	V	33-1003	7	098100
C	37-2006			SUBASSY ELECTRONICS	V	37-1001	8	098200
D	37-2004			SUBASSY COMP RATE LIMIT	V	37-2006	9	098210
D	37-2003			SUBASSY COMP	V	37-2006	9	098215
D	37-2013			DECK BOTTOM DISCR	V	37-2003	10	098220
D	37-2005			SUBASSY COMP DISCR REF	V	37-2006	9	098225
C	33-1004			ASSY ENCAPSULATION	V	4801225	6	098300
B	33-0009			COVER SIDE A & E	V	33-1004	7	098310
B	33-0010			COVER SIDE B & F	V	33-1004	7	098320
B	33-0011			COVER SIDE C	V	33-1004	7	098330
B	33-0012			COVER SIDE D	V	33-1004	7	098340
B	33-0013			BLOCK PROTECTIVE	V	33-1004	7	098400
B	35-0016		A	BRACKET CAP .213 GM	V	33-1004	7	098410
D	33-2001			AMPLIFIER 213 GM TUBE	V	4801225	6	098500
B	33-2001	LM		AMPL 213 GM TUBE	V	4801225	6	098600
D	33-2002			FLOW CHART QUALITY CONT	V	4801225	6	098700
A	33-2002	LM		AMP 213 GM TUBE MATERIAL	V	4801225	6	098800
C	33-3001			AMPL 213 GM TUBE SCHEM	V	4801225	6	099000
D	33-3002			FLOW CHART QUALITY CONT	V	4801225	6	099100
D	33-3003			DGM INTERCONNECTION	V	4801225	6	099200
C	33-3006			TRAPPED RADIATION	V	4801225	6	099310
B	35-0010			BLOCK MTG 213 GM TYPE 6	V	4801225	6	099400
B	35-0011			PLUG END 213 GM TYPE 6	V	4801225	6	099500
B	35-0012			SLEEVE INSULATOR 213 GM	V	4801225	6	099600
B	35-0013			SPACER FRONT 213 GM	V	4801225	6	099700
C	35-0014		B	HOUSINT TUBE 213 GM	V	4801225	6	099800

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 30 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPP COL	SEQUENCE NUMBER
D	35-1003			ASSY 213 GM TYPE 6	V	4801225	6	099900
A	37-0001			HOLDER FOIL OUTER	V	4801225	6	100000
A	37-0002			HOLDER FOIL INNER	V	4801225	6	100100
A	37-0003			FOIL-PN JUNCTION TYPE 1	V	4801225	6	100200
B	37-0004			SUBASSY HOLDER FOIL	V	4801225	6	100300
C	37-0005		A	APERTURE OUTER PN JUNCTN	V	4801225	6	100400
C	37-0006		A	APERTURE INNER PN JUNCTN	V	4801225	6	100500
A	37-0007			BAFFLE PN JUNCTN TYPE 1	V	4801225	6	100600
C	37-0008			ADAPTER CAP EXTERIOR	V	4801225	6	100700
C	37-0009			CAP APERTURE EXTERIOR	V	4801225	6	100800
B	37-0010			SCREW SPECIAL PN JUNCTN	V	4801225	6	100900
B	37-0011			GASKET RF PN JUNCTION	V	4801225	6	101000
C	37-0012		A	COVER BOTTOM BOX ELECT	V	4801225	6	101100
C	37-0013		A	COVER TOP-BOX ELECT	V	4801225	6	101200
D	37-0014		A	XITION ELEMENT PN JUNCTN	V	4801225	6	101300
D	37-0015		A	BOX ELECT PN JUNCTION	V	4801225	6	101400
B	37-0016		A	HOLDER SOURCE PN	V	4801225	6	101420
D	37-2002			SUBASSY COMPONENT-POST	V	4801225	6	101450
C	37-2008			DECK TOP PREAMP PN JCT	V	4801225	6	101500
D	37-2009			DECK BOTTOM PREAMP	V	4801225	6	101600
C	37-2010			DECK TOP POST AMP PN JCT	V	4801225	6	101700
C	37-2011			DECK BOTTOM POST AMP	V	4801225	6	101800
C	37-2012			DECK TOP DISCR PN JCT	V	4801225	6	101900
C	37-2014			DECK TOP RATE LIMITER	V	4801225	6	102000
C	37-2015			DECK BOTTOM RATE LIMITER	V	4801225	6	102100
C	37-2016			DECK TOP DISCRIMINATOR	V	4801225	6	102200
C	37-2017			DECK BOTTOM DISCR REF	V	4801225	6	102300
A	37-2020		A	INSULATOR THIN BOT	V	4801225	6	102400
C	37-2023			SUBASSY MECHANICAL	V	37-2006	6	102500
D	37-2001			SUBASSY COMP PREAMP	V	37-2023	7	102600
A	37-2018			INSULATOR TOP PREAMP	V	37-2023	7	102700
A	37-2019			INSULATOR BOTTOM PREAMP	V	37-2023	7	102800
A	37-2021		A	BOX PRE AMP	V	37-2023	7	102900
A	37-2022		A	COVER BOX PREAMP	V	37-2023	7	103000
E	37-2024			INSULATOR ELECTRONICS	V	4801225	6	103100
C	37-3003			OUTPUT & RATE LIMITER	V	4801225	6	103200
C	37-3004			DISCRIMINATOR PN JUNCTN	V	4801225	6	103300
C	37-3005			PREAMP PN JUNCTION	V	4801225	6	103400
B	37-3006			DISCRIMINATOR REFERENCE	V	4801225	6	103600
B	37-3007			POST AMPL PN JUNCTION	V	4801225	6	103700

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 31 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	4801226	CD	C	PROBE PLASMA SENSOR 32A1	L	4801609	5	103800
A	90302			SURFACE TREATMENT	L	4801226	6	103900
D	4801739			CABLE BRKT SOLAR PLASMA	L	4801226	6	104000
A	C-4889-B1	PL		PARTS LIST	V	4801226	6	104100
A	C-4541-M		A	CABLE CLAMP NUT	V	C-4889-B1	7	104200
A	C-4541-P		B	PLATING SPECS E-OGO-IMP	V	C-4889-B1	7	104300
D	D-4889-A			PLASMA PROBE 6 CAN	V	C-4889-B1	7	104400
D	D-4889-B			BRACKET CAN HOLDING	V	C-4889-B1	7	104500
C	A-4889-C		A	CAN	V	C-4889-B1	7	104600
B	B-4889-D			SHELF	V	C-4889-B1	7	104700
B	B-4889-E		A	CAN COVER	V	C-4889-B1	7	104800
B	B-4889-F			TERMINAL BOX & COVER	V	C-4889-B1	7	104900
A	C-4889-G			SEPARATOR	V	C-4889-B1	7	105000
B	B-4889-H			SPACER	V	C-4889-B1	7	105100
B	B-4889-I			COLLECTOR PLATE	V	C-4889-B1	7	105200
C	A-4889-J		A	HV CABLE ASSY & PARTS	V	C-4889-B1	7	105300
A	C-4889-K			SCREW CAP	V	C-4889-B1	7	105400
A	C-4889-L			RUBBER INSULATOR & PLUG	V	C-4889-B1	7	105500
B	B-4889-M			TERMINAL BOX & COVER	V	C-4889-B1	7	105600
B	B-4889-N			GRID RING	V	C-4889-B1	7	105700
B	B-4889-O			GRID RING CLAMP	V	C-4889-B1	7	105800
B	B-4889-P			GRID RING	V	C-4889-B1	7	105900
B	B-4889-Q			GRID RING CLAMP	V	C-4889-B1	7	106000
B	B-4889-R			GRID RING	V	C-4889-B1	7	106100
B	B-4889-S			GRID RING CLAMP	V	C-4889-B1	7	106200
B	B-4889-T			GRID RING	V	C-4889-B1	7	106300
B	B-4889-U			GRID RING CLAMP	V	4889-B1	7	106400
A	C-4889-V			INSULATOR HIGH VOLTAGE	V	C-4889-B1	7	106500
B	B-4889-W			SPACER	V	4889-B1	7	106600
A	C-4889-X			COLLECTOR PLATE SUPPORT	V	C-4889-B1	7	106700
A	C-4889-Y			MODIFIED WASHER	V	C-4889-B1	7	106800
A	C-4889-Z			COLLECTOR PLATE SUPPORT	V	C-4889-B1	7	106900
A	C-4889-AA			CABLE CLAMP PLUG	V	C-4889-B1	7	107000
D	D-4889-AB			PLASMA PROBE 6 CAN ASSY	V	C-4889-B1	7	107100
J	S-4889-AC			INSTALLATION LAYOUT &ASY	V	C-4889-B1	7	107200
C	A-4889-AD			CAN	V	C-4889-B1	7	107300
A	C-4933-A			HV PLUG ASSEMBLY	V	C-4889-B1	7	107400
A	C-4933-B			10KV JACK NUT	V	C-4889-B1	7	107500
A	C-4933-C			10KV CAP NUT	V	C-4889-B1	7	107600
A	C-4933-D			10KV JACK HOUSING	V	C-4889-B1	7	107700

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 32 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	C-4933-E			10KV JACK CAP	V	C-4889-B1	7	107800
A	C-4933-F		A	10KV CAP	V	C-4889-B1	7	107900
A	C-4933-G			10KV JACK PIN	V	C-4889-B	7	108000
A	C-4933-H			10KV JACK LOCK NUT	V	C-4889-B1	7	108100
B	4801636			WASHER ALUMINUM	L	4801609	5	108200
J	4801708		B	RADIATING FIN	L	4801609	5	108230
J	4801613		C	SCIENCE INSTALLATION	L	4801071	4	108300
B	4600538			WASHER INSULATOR	L	4801613	5	108400
J	4801024	CD	E	MAGNETOMETER SENSOR 33A1	L	4801613	5	108500
D	4801603	CD		XDUCER MAGNETOMETER TEMP	L	4801024	6	108600
C	TIN 456456			PCB INFRARED DETECTOR	L	4801024	6	108700
D	TIN 484756			DIAG LOGIC AND BLOCK	L	4801024	6	108710
D	TIN 484760		A	DIAG INTERCONNECTING	L	4801024	6	108720
D	TIN 456473		C	SENSOR PREAMPLIFIER	L	44801024	6	108730
C	TIN 456458			PCB SENSOR PREAMPLIFIER	L	456473	7	108740
C	TIN 456471			PCB SENSOR PREAMPLIFIER	L	456473-1	7	108750
C	TIN 456472			PCB SENSOR PREAMPLIFIER	L	456473-1	7	108760
D	TIN 456470		A	SENSOR HELIUM	L	4801024	6	108770
J	TIN 456469		B	IGNITOR SENSOR	L	456470-1	7	108780
C	4801811			CELL ABSORPTION	L	456469	8	108785
C	TIN 456451		A	INDUCTOR	L	456469-1	8	108790
N	TIN 456465			TERMINAL BOARD	L	456451-1	9	108800
B	TIN 456455			NUT SPECIAL	L	456469-1	9	108802
C	TIN 456459		B	SENSOR PREAMPLIFIER	L	456469-1	9	108804
B	TIN 456461			COVER HOUSING TOP	L	456469-1	8	108810
C	TIN 456480			GASKET SENSOR IGNITOR	L	456469-1	8	108820
C	TIN 456491			SENSOR IGNITOR	L	456469-1	8	108830
C	TIN 456490			PCB IGNITER SENSOR #1	L	456491-1	9	108840
C	TIN 484736		B	DIAG ELECT SCHEMATIC	L	456491-1	9	108850
B	TIN 513058		A	BOARD MOUNTING	L	456491-1	9	108860
B	TIN 456497			CONDUCTOR HEAT	L	456469-1	8	108870
D	TIN 484705		A	HOUSING IGNITOR	L	456469-1	8	108880
C	TIN 484714		B	HOUSING SENSOR #1	L	456469-1	8	108890
C	TIN 484729			COVER HOUSING SIDE	L	456469-1	8	108900
C	TIN 484732		A	IGNITOR TRANSFORMER ASSY	L	456469-1	8	108910
C	TIN 484707		A	TRANSFORMER IGNITOR	L	484732-1	9	108920
B	TIN 513054			TERMINAL BOARD	L	484707-1	10	108930
C	TIN 484779			SUPPORT CELL SENSOR	L	456469-1	8	108940
B	TIN 484786			STUD SPECIAL THREADED	L	456469-1	8	108950
B	TIN 484788			RETAINER #1	L	456469-1	8	108960

JPL 1367 JUN 63

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 33 DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	TIN 484789		A	RETAINER #2	L	456469-1	8	108970
C	TIN 508340		B	SENSOR IGNITOR SUBASSY	L	456469-1	8	108980
C	TIN 508339			PCB SENSOR IGNITOR	L	508340-1	9	108990
B	TIN 513053		A	SUPPORT SENSOR IGNITOR	L	456469-1	8	109000
B	TIN 456498			CONDUCTOR HEAT SENSOR	L	456470-1	7	109010
B	TIN 456499			CONDUCTOR HEAT	L	456470-1	7	109020
D	TIN 508335		A	PREAMPLIFIER SENSOR	L	456470-1	7	109030
B	TIN 456453			COVER PREAMPLIFIER	L	508335-1	8	109050
B	TIN 456454			PLATE CONNECTOR	L	508335-1	8	109060
B	TIN 456457		A	INFRARED DETECTOR	L	508335-1	8	109062
C	TIN 456460			BASE MOUNTING HOUSING	L	508335-1	8	109070
C	TIN 484741		A	DIAGRAM ELECT SCHEMATIC	L	508335-1	8	109080
D	TIN 484742			HOUSING PREAMPLIFIER	L	508335-1	8	109090
D	TIN 484743			HOUSING PREAMPLIFIER	L	508335-1	8	109100
B	TIN 484786			STUD SPECIAL THREADED	L	508335-1	8	109110
B	TIN 484790			INSULATOR	L	508335-1	8	109120
D	TIN 508337			COIL MAGNETIC FIELD	L	456470-1	7	109130
B	TIN 456463			INSERT	L	508337-1	8	109132
J	TIN 456468			COIL MAGNETIC FIELD	L	508337-1	8	109140
D	TIN 484771			MOLD MAGNETIC FIELD COIL	L	456468-1	9	109150
B	TIN 456479			MOUNT CERROBEND	L	484771-1	10	109160
C	TIN 456496			MANDREL	L	456479-1	11	109170
B	TIN 508338			MOUNT CERROBEND	L	484771-1	10	109180
C	TIN 456496			MANDREL	L	508338-2	11	109190
B	TIN 508359			CAP TERMINAL	L	484771-1	10	109200
B	TIN 513050			INSERT	L	484771-1	10	109210
B	TIN 484780		A	RING HOUSING SENSOR	L	508337-1	8	109220
J	TIN 508349			HELIUM MAGNETOMETER	L	4801024	6	109230
D	TIN 484703			MAGNETOMETER SENSOR	L	508349	7	109240
D	TIN 484752		A	HELIUM MAGNETOMETER	L	508349-1	7	109250
D	TIN 484709		A	WIDE BAND AMPLIFIER	L	484752-1	8	109260
D	TIN 484706			DIAG ELECT SCHEMATIC	L	484709-1	9	109270
A	TIN 484708			GUIDE WELDING WIDE	L	484709-1	9	109280
D	TIN 484748		A	BANDPASS AMPLIFIER	L	484752-1	8	109290
A	TIN 484747			GUIDE WELDING BAND PASS	L	484748-1	9	109300
D	TIN 484750			DIAG ELECT SCHEMATIC	L	484748-1	9	109310
D	TIN 484751		B	PCB HELIUM MAGNETOMETER	L	484752-1	8	109320
D	TIN 484735		B	BAND PASS AMPLIFIER	L	484751-1	9	109330
D	TIN 484733			DIAG ELECT SHCEMATIC	L	484735-1	10	109340
D	TIN 484733			DIAG ELECT SHCEMATIC	L	484735-2	10	109350

JPL 1387 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 34 DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	TIN 484734			GUIDE WELDING	L	484735-1	10	109360
D	TIN 484775		A	DIAG ELECT SCHEMATIC	L	484752-1	8	109370
D	TIN 484776			DIAG ELECT SCHEMATIC	L	508349-1	7	109380
D	TIN 484796			HELIUM MAGNETOMETER	L	508349-1	7	109390
D	TIN 456484		A	XEY AXIS SWEEP DRIVER	L	484796-1	8	109400
C	TIN 456482			DIAGRAM ELECT SCHEMATIC	L	456484-1	9	109410
A	TIN 456483			GUIDE WELDING	L	456484-1	9	109420
D	TIN 484713		A	FLIP FLOP & CLOCK	L	484796-1	8	109430
D	TIN 484710			DIAG ELECT SCHEMATIC	L	484713-1	9	109440
A	TIN 484712			GUIDE WELDING	L	484713-1	9	109450
D	TIN 484739		B	TWIN TEE FILTER	L	484796-1	8	109460
A	TIN 484738			GUIDE WELDING TWIN TEE	L	484739-1	9	109470
C	TIN 484740		A	DIAGRAM ELECT SCHEMATIC	L	484739-1	9	109480
D	TIN 484746		A	DEMODULATOR & DC AMPL	L	484796-1	8	109490
D	TIN 484744			DIAG ELECT SCHEMATIC	L	484746-1	9	109500
D	TIN 484744			DIAG ELECT SCHEMATIC	L	484746-2	9	109510
A	TIN 484745			GUIDE WELDING	L	484746-1	9	109520
D	TIN 484754		A	50 CPS OSCILLATOR	L	484796-1	8	109530
C	TIN 484749			DIAG ELECT SCHEMATIC	L	484754-1	9	109540
A	TIN 484753			GUIDE WELDING 50 CPS	L	484754-1	9	109550
D	TIN 484759		A	PHASE SHIFTER & DEM DRIV	L	484796-1	8	109560
D	TIN 484757			DIAG ELECT SCHEMATIC	L	484759-1	9	109570
D	TIN 484757			DIAG ELECT SCHEMATIC	L	484759-2	9	109580
A	TIN 484758			GUIDE WELDING PHASE	L	484759-1	9	109590
D	TIN 484774		A	Z AXIS SWEEP DRIVER	L	484796-1	8	109600
C	TIN 484772			DIAG ELECT SCHEMATIC	L	484774-1	9	109610
A	TIN 484773		A	GUIDE WELDING Z AXIS	L	484774-1	9	109620
D	TIN 484794			FEED BACK FILTER	L	484796-1	8	109630
C	TIN 484791			DIAG ELECT SCHEMATIC	L	484794-1	9	109640
C	TIN 484792			PCB FEED BACK FILTER	L	484794-1	9	109650
C	TIN 484793			PCB FEED BACK FILTER	L	484794-1	9	109660
D	TIN 484795		C	PCB HELIUM MAGNETOMETER	L	[illegible]	[illegible]	[illegible]
D	TIN 484798		B	WIDE BAND AMPL FILTER	L	484796-1	8	109680
B	TIN 456464		A	DIAG ELECT SCHEMATIC	L	484798-1	9	109684
A	TIN 484797		A	GUIDE WELDING WIRE BAND	L	484798-1	9	109690
D	TIN 508336		C	CHASSIS MODIFIED	L	508349-1	7	109700
C	TIN 484737			RING HOUSING SENSOR	L	508336-1	8	109710
A	TIN 508353	WL		POINT TO POINT	L	508349-1	7	109720
J	TIN 508352		A	PWR SUPPLY HELIUM	L	4801024	6	109730
D	TIN 456474			EXCITER RADIO FREQUENCY	L	508352-1	7	109740

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 35 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPP COL	SEQUENCE NUMBER
B	TIN 456485			TERMINAL FEEDTHRU	L	456474-1	8	109750
C	TIN 456495		B	RF EXCITER #1 STEP 2	L	456474-1	8	109760
C	TIN 456494		A	PCB HELUUM-MAGNETOMETER	L	456495-1	9	109770
D	TIN 484728		B	DIAG ELECT SCHEMATIC	L	456495-1	9	109780
B	TIN 508354			TRANSFORMER	L	456495-1	9	109790
B	TIN 508355			TRANSFORMER PWR	L	456495-1	9	109800
D	TIN 484728		B	DIAG ELECT SCHEMATIC	L	456474-1	8	109810
D	TIN 484799			TRAY RF EXCITER	L	456474-1	8	109820
A	TIN 508342	WL		POINT TO POINT	L	456474-1	8	109830
C	TIN 508351		A	RF EXCITER #2 STEP 2	L	456474	8	109840
D	TIN 456476		A	PWR SUPPLY HELIUM	L	508352-1	7	109850
D	TIN 456475		C	PCB PWR SUP HELIUM	L	456476-1	8	109860
D	TIN 456478			HELIUM MAGNETOMETER	L	508352-1	7	109870
C	TIN 456477			PCB HELIUM MAGNETOMETER	L	456478-1	8	109880
D	TIN 484784		A	IGNITION LOGIC	L	456478-1	8	109900
D	TIN 484782			DIAG ELECT SCHEMATIC	L	484784-1	9	109910
A	TIN 484783			GUIDE WELDING IGNITION	L	484784-1	10	109920
B	TIN 456481			COVER RF EXCITER	L	508352-1	7	109930
C	TIN 456493			PWR SUPPLY HELIUM	L	508352-1	7	109940
C	TIN 456492		A	PCB PWR SUPPLY HELIUM	L	456493-1	8	109950
B	TIN 484702			FUSE ASSEMBLY	L	508352-1	7	109960
B	TIN 484755			BOARD MOUNTING FUSE	L	484702-1	8	109970
C	TIN 484767		A	PLUS 12 V TRANSFORMER	L	508352-1	7	109980
C	TIN 484770			SPINDLE TRANSFORMER	L	484767-1	8	109990
D	TIN 508346			TRANSFORMER PLUS 12V	L	484767-1	8	110000
D	TIN 508347			CHOKE DC POWER	L	484767-1	8	110010
P	TIN 484777			DIAG ELECT SCHEMATIC	L	508352-1	7	110020
J	TIN 484778		A	CHASSIS HELIUM MAGNETO	L	508352-1	7	110030
B	TIN 484787			STUD SPECIAL THREADED	L	508352-1	7	110040
C	TIN 508341			DC CHOKE ASSEMBLY	L	508352-1	7	110050
B	TIN 484785			SPINDLE CHOKE	L	508341-1	8	110060
D	TIN 508347			CHOKE DC POWER	L	508341-1	8	110070
C	TIN 508344		B	A TO D CONVERTOR HELIUM	L	508352-1	7	110080
C	TIN 508343			PCB A TO D CONVERTORS	L	508344-1	8	110090
C	TIN 508345		A	TRANSFORMER 32V/70V	L	508352-1	7	110100
C	TIN 508348			TRANSFORMER CURRENT	L	508352-1	7	110110
B	TIN 508358			INSULATOR TRANSISTOR	L	508352-1	7	110120
B	TIN 513051			BRACKET ANGLE	L	508352-1	7	110130
C	TIN 508350			PCB HELIUM-MAGNETOMETER	L	508351-1	8	110140
C	TIN 513052			GASKET RF EXCITER	L	508352-1	7	110150

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 36 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPP COL	SEQUENCE NUMBER
B	TIN 513055			WASHER FLAT COUNTERSUNK	L	508352-1	7	110160
B	TIN 513056			INSERT THREADED	L	508352-1	7	110170
B	TIN 513057			INSERT THREADED	L	508352-1	7	110180
A	TIN 513059	WL		POINT TO POINT PWR	L	508352-1	7	110190
J	4801180		F	ION CHAMBER UNIT 26	L	4801613	5	114900
A	90127			TRANSIPAD INSTALLATION	L	4801180	6	115000
B	90312			STUD LOCK FEMALE	L	4801180	6	115100
J	4801002		D	ION CHAMBR UNIT 26 SCHEM	L	4801180	6	115200
D	4600576		A	SURFACE TEMP XDUCERS	L	4801002	7	115300
A	4801002	PL	D	ION CHAMBER UNIT 26	L	4801002	7	115400
D	4801214	CD	A	ION CHAMBER	L	4801180	6	115500
A	611354			GENERAL SPECIFICATION	V	4801214	7	115510
A	611355			HYROFORMING HEMISPHERES	V	4801214	7	115511
A	611356			APPLICATION OF SILVER	V	4801214	7	115512
A	611357			FUSION WELDING	V	4801214	7	115513
A	611358			PROCESS SPECIFICATION	V	4801214	7	115515
A	611359			PROCESS SPECIFICATION	V	4801214	7	115516
A	611361			ABRASIVE BLASTING	V	4801214	7	115517
A	611362			QUARTZ STEM & FIBER	V	4801214	7	115518
A	611363			PROCESS SPECIFICATION	V	4801214	7	115519
A	611364			GENERAL SPECIFICATION	V	4801214	7	115520
A	611365			PROCESS SPECIFICATION	V	4801214	7	115521
D	612668			IONIZATION CHAMBER ASSY	V	4801214	7	115600
B	612667			RING-CLAMPING	V	612668	8	115700
D	612670			COLLECTOR ASSY IONIZATON	V	612668	8	115800
C	612661			FITTING HEADER IONIZATON	V	612670	9	115900
C	612664			QUARTZ IONIZATION CHAMBR	V	612670	9	116000
B	612665			LUG-GROUND	V	612670	9	116100
C	612671			HEADER ASSY IONIZATION	V	612670	9	116200
C	612660			HEADER BASE IONIZATION	V	612671	10	116300
B	612672			HEADER PIN CAP IONIZATON	V	612671	10	116400
B	612676			GASKET	V	612671	10	116410
B	612673			SPIDER IONIZATION CHAMBR	V	612670	9	116500
B	612674			CAN SHIELD IONIZATION	V	612670	9	116600
B	612675			CUP-MOUNTING	V	612670	9	116700
B	612689			SPIDER SPRING IONIZATION	V	612670	9	116800
C	612677			COVER IONIZATION CHAMBER	V	612668	8	117100
C	612678			STRUCTURE-MODIFIED	V	612668	8	117200
C	612669			STRUCTURE WELDMENT	V	612678	9	117300
C	612647			SHELL-BLANK	V	612669	10	117400

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 37 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	612662		A	NECK IONIZATION CHAMBER	V	612669	10	117500
C	612690			10B11 DETECTOR ASSY	V	612668	8	117510
B	612663		A	SS SHIELD-10311 DETECT	V	612690	9	117520
B	612691			DETECTOR INSUL BOARD	V	612690	9	117530
C	612703			ION CHAMBER SUPPORT	V	612668	10	117600
C	612692			OUTLINE DRAWING	V	4801214	7	117610
A	612694			IONIZATION CHAMBER	V	4801214	7	117612
C	612695			MANDREL FOR ELECTROFORM	V	4801214	7	117614
C	4801223	CD		10B11 DETECTOR TUBE	L	4801180	6	117700
J	4801303		D	CB1 ASSY ION CHAMBER	L	4801180	6	117800
C	90448			TERMINAL	L	4801303	7	117900
J	4801002		D	ION CHAMBR UNIT 26 SCHEM	L	4801303	7	118000
J	4801304		B	PC CB1 ION CHAMBER	L	4801303	7	118100
D	612650			P CIR CB1 ION CHAMBER 26	V	4801303	7	118200
J	4801305		C	CB2 ASSY ION CHAMBER	L	4801180	6	118300
C	90048			WASHER FLAT	L	4801305	7	118400
J	4801002		D	ION CHAMBR UNIT 26 SCHEM	L	4801305	7	118500
J	4801306		B	PC CB2 ION CHAMBER	L	4801305	7	118600
D	612651			P CIR CB2 ION CHAMBER 26	V	4801305	7	118700
J	4801307		C	CB3 ASSY	L	4801180	6	118800
C	90448			TERMINAL	L	4801307	7	118900
J	4801002		D	ION CHAMBR UNIT 26 SCHEM	L	4801307	7	119000
J	4801308		A	PC CB3 HIGH VOLTAGE PWR	L	4801307	7	119100
D	612646			P CIR CB3 HIGH VOLT	V	4801307	7	119200
J	4801309		D	CB4 ASSY ION CHAMBER	L	4801180	6	119300
C	90252			SCREW QUICKLOCK	L	4801309	7	119400
C	90448			TERMINAL	L	4801309	7	119500
J	4801002		D	ION CHAMBR UNIT 26 SCHEM	L	4801309	7	119600
J	4801310		A	PC CB4 ION CHAMBER 26	L	4801309	7	119700
C	4801313		A	XFMR T2 ION CHAMBER 26	L	4801309	7	119800
E	612652			P CIR CB4 ION CHAMBER 26	V	4801309	7	119900
J	4801311		A	SUBCHASSIS ION CHAMBER	LX	4801180	6	120000
C	4801312		A	TRANSFORMER T1	L	4801180	6	120100
C	4801314		A	GUARD	L	4801180	6	120200
D	4801315			COVER ION CHAMBER	L	4801180	6	120300
D	4901160		A	SCREW MACHINE	L	4801180	6	120320
D	4801738			THERMAL SHIELD SUPPORT	L	4801613	5	120720
A	90302			SURFACE TREATMENT	L	4801738	6	120730
D	4901162		A	SCREW MACHINE INTERNAL	L	4801613	5	120800
4	4900550		C	CABLING INTEGRATION	L	4101301	3	120900

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 38 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
	DS 82			SCREW-INTERNAL WRENCHING	L	4900550	4	120910
	DS 84			SCREW-HI-TORQUE PAN HEAD	L	4900550	4	120915
C	90313			MALE LOCK ASSY INSTL	L	4900550	4	120920
C	90314			CONNECTOR INSTL DEM-9	L	4900550	4	120925
J	4900555		C	UPPER RING HARNESS	L	4900550	4	121300
	DS 81			SCREW-CLOSE TOLERANCE	L	4900555	5	121310
	DS 84			SCREW-HI-TORQUE PAN HEAD	L	4900555	5	121315
C	90313			MALE LOCK ASSY INSTL	L	4900555	5	121320
J	4101453		B	TROUGH ASSY RING HARNESS	L	4900555	5	121400
J	4101454		A	TROUGH SECTION BAY 1	L	4101453	6	121500
D	90413			CONNECTOR PATTERN	L	4101454	7	121600
J	4101455		B	TROUGH SECTION BAY 2	L	4101453	6	121700
D	90413			CONNECTOR PATTERN	L	4101455	7	121800
D	4101456			TROUGH SECTION BAY 3	L	4101453	6	121900
D	90413			CONNECTOR PATTERN	L	4101456	7	122000
J	4101457		A	TROUGH SECTION BAY 4	L	4101453	6	122100
D	90413			CONNECTOR PATTERN	L	4101457	7	122200
J	4101458		A	TROUGH SECTION BAY 5	L	4101453	6	122300
D	90413			CONNECTOR PATTERN	L	4101458	7	122400
J	4101459		B	TROUGH SECTION	L	4101453	6	122500
D	90413			CONNECTOR PATTERN	L	4101459	7	122600
J	4101460		A	TROUGH SECTION BAY 7	L	4101453	6	122700
D	90413			CONNECTOR PATTERN	L	4101460	7	122800
J	4101461		A	TROUGH SECTION BAY 8	L	4101453	6	122900
D	90413			CONNECTOR PATTERN	L	4101461	7	123000
B	4101466			PLATE MOUNTING SHORT	L	4101453	6	123100
B	4101467			PLATE MOUNTING LONG	L	4101453	6	123200
C	4101790			DOUBLER CABLE TROUGH	L	4101453	6	123210
C	4101468			BRACKET MOUNTING CONNECT	L	4900555	5	123300
C	4101789			CLAMP CABLE TROUGH	L	4900555	5	123710
B	4900556		C	9W8 WIRING HARNESS	L	4900555	5	123800
B	4900557		A	9W9 WIRING HARNESS	L	4900555	5	123900
B	4901168			SPACER CABLE TIE	L	4900555	5	123950
B	4900558			9W8 WIRING HARNESS	L	4900550	4	124000
B	4900559		A	9W14 WIRING HARNESS	L	4900550	4	124100
B	4900561			9W25 WIRING HARNESS	L	4900550	4	124300
B	4900562			9W22 WIRING HARNESS	L	4900550	4	124400
B	4900576		A	9W28 WIRING HARNESS	L	4900550	4	124500
B	4900582		B	9W26 CABLE ASSY	L	4900550	4	124700
B	4900586		A	COAXIAL CABLE 9W34 ASSY	L	4900550	4	124800

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 39 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4900634			COAXIAL CABLE PW7 ASSY	L	4900550	4	125200
B	4900635			COAXIAL CABLE PW15 ASSY	L	4900550	4	125300
B	4900636			COAXIAL CABLE PW6 ASSY	L	4900550	4	125400
B	4900642		A	COAXIAL CABLE PW2B ASSY	L	4900550	4	125500
J	4900647		C	LOWER RING HARNESS	L	4900550	4	125600
	DS 82			SCREW INTERNAL WRENCHING	L	4900647	5	125605
	DS 84			SCREW PANHEAD HI-TORQUE	L	4900647	5	125607
	DS 88			SCREW CSK HD HI TORQUE	L	4900647	5	125609
	DS 92			BOLT 12 POINT DRIVE	L	4900647	5	125611
B	4900554		D	9W19 WIRING HARNESS	L	4900647	5	125650
C	4900673			FUSE ASSY CONN MOUNTED	L	4900647	5	125652
C	4901166			CLAMP CABLE	L	4900647	5	125655
C	4901167			STRAP CABLE TIE	L	4900550	4	125900
B	4901200			MALE LOCK ASSY CONNECTOR	L	4900550	4	125910
B	4901215			MALE LOCK ASSY MODIFIED	L	4900550	4	125920
B	4901217			CLIP CLAMP	L	4900550	4	125925
B	4901218			CLIP CLAMP	L	4900550	4	125930
J	4901042		E	PACKAGING ASSEMBLY	L	4101301	3	126000
J	4201579		F	ATT CONT & CC&S ASSEMBLY	L	4901042	4	126100
D	4200903		J	LAUNCH COUNTER SUBASSY	L	4201579	5	126200
B	90252			SCREW QUINTLOCK	L	4200903	6	126300
B	90312			STUD LOCK FEMALE	L	4200903	6	126400
C	90314			CONNECTOR INSTL DEM-9	L	4200903	6	126500
C	3158989		B	STRAP RELAY	L	4200903	6	126600
C	4200168		A	RELAY STRAP CC&S	L	4200903	6	126700
J	4200900		K	LAUNCH CTR SCHEM DIAG	L	4200903	6	126800
J	4200901		K	CB1 ASSY LAUNCH COUNTER	L	4200903	6	126900
A	90127			TRANSIPAD INSTALLATION	L	4200901	7	127000
A	90303			TRANSIPAD INSTALLATION	L	4200901	7	127100
A	90306			TERMINAL SPLIT	L	4200901	7	127200
A	4200901	PL	K	CB1 LAUNCH COUNTER	L	4200901	7	127300
C	3152616		F	TRANSFLUXOR TM1	L	PL4200901	8	127400
C	3152617		F	TRANSFLUXOR TM2	L	PL4200901	8	127500
J	4200905		G	CB1 PRINTED CIRCUITRY	L	4200901	7	127600
D	4200990		A	MAGNETIC MODULE NO 1	L	4200901	7	127700
C	4201749			TRANSFLUXOR TM1 B	L	4200990	8	127800
C	4201750			TRANSFLUXOR TM2 B	L	4200990	8	127900
J	4200902		G	CB2 ASSY LAUNCH COUNTER	L	4200903	6	128000
A	90127			TRANSIPAD INSTALLATION	L	4200902	7	128100
A	90303			TRANSIPAD INSTALLATION	L	4200902	7	128200

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 40 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	90306			TERMINAL SPLIT	L	4200902	7	128300
A	4200902	PL	H	CB2 LAUNCH COUNTER	L	4200902	7	128400
C	3152616		F	TRANSFLUXOR-TM1	L	PL4200902	8	128500
C	3152626		H	TRANSFLUXOR-TM2A	L	PL4200902	8	128600
C	3152627		G	CORE-TC1	L	PL4200902	8	128700
J	4200906		D	CB2 PRINTED CIRCUITRY	L	4200902	7	128800
D	4200991		B	MAGNETIC MODULE NO 2	L	4200902	7	128900
D	3158596		D	HOLDER MAGNETIC CORE	L	4200991	6	129000
D	4200904		C	SUBCHASSI LAUNCH COUNTER	L	4200903	6	129100
D	4901047		B	SUBCHASSIS MACHINED	L	4200904	7	129200
J	4200909		K	CASE HARNESS SCHEM CC&S	L	4201579	5	129300
D	4200913		F	CENTRAL CLOCK SUBASSY	L	4201579	5	129400
B	90312			STUD LOCK FEMALE	L	4200913	6	129500
C	90314			CONNECTOR INSTL DEM-9	L	4200913	6	129600
J	4200910		J	CENTRAL CLOCK SCHEM DIAG	L	4200913	6	129700
J	4200911		F	CB1 ASSY CENTRAL CLOCK	L	4200913	6	129800
A	90127			TRANSIPAD INSTALLATION	L	4200911	7	129900
C	90252			SCREW QUINTLOCK	L	4200911	7	130000
A	90303			TRANSIPAD INSTALLATION	L	4200911	7	130100
B	3158918		C	BRKT CRYSTAL MT CC&S	L	4200911	7	130200
A	4200911	PL	F	CB1 CENTRAL CLOCK	L	4200911	7	130300
B	3158919		C	CRYSTAL	L	PL4200911	8	130400
J	4200915		E	PRINTED CIRCUITRY CB1	L	4200911	7	130500
J	4200912		L	CB2 ASSY CENTRAL CLOCK	L	4200913	5	130600
A	90127			TRANSIPAD INSTALLATION	L	4200912	7	130700
A	90303			TRANSIPAD INSTALLATION	L	4200912	7	130800
A	4200912	PL	K	CB2 CENTRAL CLOCK	L	4200912	7	130900
C	3152616		F	TRANSFLUXOR TM1	L	PL4200912	8	131000
C	3152617		F	TRANSFLUXOR TM2	L	PL4200912	8	131100
C	3182439			INDUCTOR TC-5	L	PL4200912	8	131200
C	3182440			INDUCTOR TC-6	L	PL4200912	8	131300
C	3182443			TRANSFLUXOR TM-12	L	PL4200912	8	131400
J	4200916		H	CB2 PRINTED CIRCUITRY	L	4200912	7	131500
D	4200917		A	MAGNETIC MODULE	L	4200912	7	131600
D	3158596		D	HOLDER MAGNETIC CORE	L	4200917	8	131700
D	4200914		C	SUBCHASSIS CENTRAL CLOCK	L	4200913	6	131800
D	4901047		B	SUBCHASSIS MACHINED	L	4200914	7	131900
D	4200923		K	MANEUVER CLOCK SUBASSY	L	4201579	5	132000
C	90252			SCREW QUINTLOCK	L	4200923	6	132100
B	90312			STUD LOCK FEMALE	L	4200923	6	132200

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 41 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	90314			CONNECTOR INSTL DEM-9	L	4200923	6	132300
B	3158938		B	STRAP, RELAY CC&S	L	4200923	6	132400
J	4200920		L	MANEUVER CLOCK CC&S SCHM	L	4200923	6	132500
J	4200921		M	CB1 ASSY MANEUVER CLOCK	L	4200923	6	132600
A	90127			TRANSIPAD INSTALLATION	L	4200921	7	132700
A	90303			TRANSIPAD INSTALLATION	L	4200921	7	132800
D	4200138		A	HOLDER ASSY CLOCK	L	4200921	7	132900
A	4200921	PL	K	CB1 MANEUVER CLOCK	L	4200921	7	133000
J	4200925		H	CB1 PRINTED CIRCUITRY	L	4200921	7	133100
J	4200922		J	CB2 ASSY MANEUVER CLOCK	L	4200923	6	133200
A	90127			TRANSIPAD INSTALLATION	L	4200922	7	133300
A	90303			TRANSIPAD INSTALLATION	L	4200922	7	133400
A	4200922	PL	J	CB2 MANEUVER CLOCK	L	4200922	7	133500
C	3152616		F	TRANSFLUXUR-IM1	L	PL4200922	8	133600
C	3152627		G	CORE-TC1	L	PL4200922	8	133700
J	4200926		F	PRINTED CIRCUITRY CB2	L	4200922	7	133800
D	4200927		A	MAGNETIC MODULE--	L	4200922	7	133900
D	3158596		D	HOLDER MAGNETIC CORE	L	4200927	8	134000
D	4200924		D	SUBCHAS MANEUVER CLOCK	L	4200923	6	134100
D	4901047		B	SUBCHASSIS MACHINED	L	4200924	7	134200
D	4200933		H	ADD REG SUBASSEMBLY	L	4201579	5	134300
C	90314			CONNECTOR INSTL DEM-9	L	4200933	6	134400
B	90312			STUD LOCK FEMALE	L	4200933	6	134500
B	3158938		B	STRAP, RELAY CC&S	L	4200933	6	134600
C	4200168		A	RELAY STRAP CC&S	L	4200933	6	134700
J	4200930		F	ADDRESS REGISTER SCHEM	L	4200933	6	134800
J	4200931		J	CB1 ASSY ADDRESS REGISTR	L	4200933	6	134900
A	90127			TRANSIPAD INSTALLATION	L	4200931	7	135000
A	90303			TRANSIPAD INSTALLATION	L	4200931	7	135100
A	4200931	PL	H	CB1 ADDRESS REGEMANEUVER	L	4200931	7	135200
J	4200935		G	CB1 PRINTED CIRCUITRY	L	4200931	7	135300
J	4200932		H	CB2 ASSY ADDRESS REGISTR	L	4200933	6	135400
A	90127			TRANSIPAD INSTALLATION	L	4200932	7	135500
A	90303			TRANSIPAD INSTALLATION	L	4200932	7	135600
A	4200932	PL	H	CB2 ADDRESS REGEMANEUVER	L	4200932	7	135700
J	4200936		G	CB2 PRINTED CKTRY	L	4200932	7	135800
D	4200934		C	SUBCHASSIS ADDRESS REG	L	4200933	6	135900
A	90433			SURFACE TREATMENT	L	4200934	7	136000
D	4901047		B	SUBCHASSIS MACHINED	L	4200934	7	136100
D	4200943		H	MANEUVER DURATION SUBASY	L	4201579	5	136200

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 42 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	90312			STUD LOCK FEMALE	L	4200943	6	136300
C	90314			CONNECTOR INSTL	L	4200943	6	136400
J	4200940		J	MANEUVER DURATION SCHEM	L	4200943	6	136500
A	90127			TRANSIPAD INSTALLATION	L	4200941	7	136600
J	4200941		H	CB1 ASSY MANEUVER DURATN	L	4200943	6	136700
A	90127			TRANSIPAD INSTL	L	4200941	7	136800
A	90306			TERMINAL	L	4200941	7	136900
A	4200941	PL	J	CB1 MANEUVER DURATION	L	4200941	7	137000
B	4200947		A	CORE TC3	L	4200941	8	137100
J	4200945		E	CB1 PRINTED CKTRY	L	4200941	7	137200
J	4200948		E	CB3 MANEUVER DURATION	L	4200941	7	137300
A	90306			TERMINAL SPLIT	L	4200948	8	137400
A	4200948	PL	A	CB3 MANEUVER DURATION	L	4200948	8	137500
J	4200949		B	CB3 PRINTED CKTRY	L	4200948	8	137600
J	4200942		H	CB2 ASSY MANEUVER DURATN	L	4200943	6	137700
A	90127			TRANSIPAD INSTL	L	4200942	7	137800
A	90303			TRANSIPAD INSTALLATION	L	4200942	7	137900
A	4200942	PL	K	CB2 MANEUVER DURATION	L	4200942	7	138000
B	4200947		A	CORE TC3	L	4200942	8	138100
J	4200946		F	CB2 PRINTED CKTRY	L	4200942	7	138200
A	90303			TRANSIPAD INSTL	L	4200946	8	138300
D	4200944		D	SUBCHAS MANEUVER DURATCN	L	4200943	6	138400
A	90433			SURFACE TREATMENT	L	4200944	7	138500
D	4901047		B	SUBCHASSIS MACHINED	L	4200944	7	138600
D	4200953		G	INPUT DECODER SUBASSY	L	4201579	5	138700
B	90312			STUD LOCK	L	4200953	6	138800
C	90314			CONNECTOR INSTL	L	4200953	6	138900
J	4200950		G	INPUT DECODER SCHEM DIAG	L	4200953	6	139000
J	4200951		J	CB1 ASSY INPUT DECODER	L	4200953	6	139100
A	90127			TRANSIPAD INSTL	L	4200951	7	139200
A	90303			TRANSIPAD INSTALLATION	L	4200951	7	139300
A	4200951	PL	H	CB1 INPUT DECODER	L	4200951	7	139400
J	4200955		F	CB1 PRINTED CKTRY INPUT	L	4200951	7	139500
J	4200952		H	CB2 ASSY INPUT DECODER	L	4200953	6	139600
A	90303			TRANSIPAD INSTL	L	4200952	7	139700
A	4200952	PL	G	CB2 INPUT DECODER	L	4200952	7	139800
J	4200956		E	CB2 PRINTED CKTRY INPUT	L	4200952	7	139900
D	4200954		C	SUBCHASSIS INPUT DECODER	L	4200953	6	140000
D	4901047		B	SUBCHASSIS MACHINED	L	4200954	7	140100
D	4200963		J	XFMR RECT SUBASSY CC&S	L	4201579	5	140200

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 43 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	90312			STUD LOCK FEMALE	L	4200963	6	140300
C	90314			CONNECTOR INSTL DEM-9	L	4200963	6	140400
J	4200957		G	CB2 ASSY XFORMER RECTIFI	L	4200963	6	140500
A	90127			TRANSIPAD INSTALLATION	L	4200957	7	140600
A	90303			TRANSIPAD INSTALLATION	L	4200957	7	140700
A	4200957	PL	E	CB2 XFORMER RECTIFIER	L	4200957	7	140800
J	4200959		E	CB2 PRINTED CKTRY XFORMR	L	4200957	7	140900
D	4200960		G	XFORMER RECTIFIER SCHEM	L	4200963	6	141000
D	4200961		G	CB1 ASSY XFORMER RECTIFI	L	4200963	6	141100
A	4200961	PL	D	CB2 XFORMER RECTIFIER	L	4200961	7	141200
J	4200962		E	CB1 PRINTED CIRCUITRY	L	4200961	7	141300
D	4200964		E	SUBCHAS XFORMER RECTIFER	L	4200963	6	141400
A	90433			SURFACE TREATMENT	L	4200964	7	141500
D	4901047		B	SUBCHASSIS MACHINED	L	4200964	7	141600
B	4200965			BRACKET DIODE XFORMER	L	4200963	6	141700
B	4200968		A	INSULATION BOARD	L	4200963	6	141800
C	4200987			BRACKET DIODE XFORMER	L	4200963	6	141900
C	4201752			XFORMER MOUNTING ASSY	L	4200963	6	142000
C	4201751			CUP XFORMER MOUNTING	L	4201752	7	142100
D	4200973		E	END COUNTER SUBASSY CC&S	L	4201579	5	142200
B	90312			STUD LOCK FEMALE	L	4200973	6	142300
C	90314			CONNECTOR INSTL DEM-9	L	4200973	6	142400
C	3158929		B	STRAP & RELAY CC&S	L	4200973	6	142500
D	4200937		A	SUBCHASSIS END COUNTER	L	4200973	6	142600
D	4901047		B	SUBCHASSIS MACHINED	L	4200937	7	142700
J	4200938		J	CB1 ASSY END COUNTER	L	4200973	6	142800
A	90127			TRANSIPAD INSTALLATION	L	4200938	7	142900
A	4200938	PL	G	CB1 #1 END COUNTER CC&S	L	4200938	7	143000
J	4200971		D	END COUNTER PCB CB1 CC&S	L	4200938	7	143100
D	4200992		A	MAGNETIC MOD-END COUNTER	L	4200938	7	143200
D	3158596		D	HOLDER MAGNETIC CORE	L	4200992	8	143300
C	3182441			TRANSFLUXOR TM1-C	L	4200992	8	143400
C	3182442			TRANSFLUXOR TM2-C	L	4200992	8	143500
J	4200939		F	CB2 ASSY END COUNTER	L	4200973	6	143600
A	90127			TRANSIPAD INSTALLATION	L	4200939	7	143700
A	90303			TRANSIPAD INSTALLATION	L	4200939	7	143800
A	4200939	PL	C	CB2 END COUNTER CC&S	L	4200939	7	143900
B	4200958		A	TRANSFLUXOR TM10	L	PL4200939	8	144000
B	4200974		A	TRANSFLUXOR TM7	L	PL4200939	8	144100
B	4200975		A	TRANSFLUXOR TM8	L	PL4200939	8	144200

JPL 1587 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 44 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4200976		A	TRANSFLUXOR TM9	L	PL4200939	8	144300
J	4201581			SILK SCREEN WARN NOTICE	L	4201370	6	144400
H	4200972		E	CB2 PRINTED CKTRY END	L	4200939	7	144500
J	4200970		N	END CTR SCHEM DIAG	L	4200973	6	144600
J	4200994			CC&S PW5 CAGE HARNESS	L	4201579	5	144700
J	4201370		A	GYRO CONTROL ASSY 7A2	L	4201579	5	144800
B	4201350			GROMMET SPLIT GYRO CONT	L	4201370	6	144900
C	4201362			CLAMP ASSY TIME INDICATR	L	4201370	6	145000
B	4201363			TIME INDICATOR ASSY	L	4201370	6	145100
J	4201366			CAPACITOR SUBASSY 7A2	L	4201370	6	145200
C	90190			CUP POTTING	L	4201366	7	145300
B	4201352			SPACER END	L	4201366	7	145400
D	4201353			CB2 ASSY CAPACITOR SUBAY	L	4201366	7	145500
C	4201355			GASKET CAPACITOR SUBASSY	L	4201366	7	145600
B	4201356			SPACER BOTTOM CAPACITOR	L	4201366	7	145700
A	4201358		A	ENCAPSULATING PROCEDURE	L	4201366	7	145800
C	4201361			CABLE CLAMP	L	4201366	7	145900
J	4201365		B	SUBCHASS CAPACITOR SUBAY	L	4201366	7	146000
J	4201368		A	GYRO SUBASSY 7A2	L	4201370	6	146100
B	90312			STUD LOCK FEMALE	L	4201368	7	146200
B	90313			MALE LOCK ASSY INSTL	L	4201368	7	146300
C	90314			CONNECTOR INSTL DEM-9	L	4201368	7	146400
J	4201354		A	CB1 ASSY GYRO SUBASSY	L	4201368	7	146500
J	4201351			CB1 PL GYRO SUBASSY	L	4201354	8	146600
D	4201359		A	GYRO ASSY	L	4201368	7	146700
C	90190			CUP POTTING	L	4201359	8	146800
C	4201562		A	RING CLAMP GYRO SUBASSY	L	4201359	8	146900
J	4201367		B	GYRO SUBCHASSIS 7A2	L	4201368	7	147000
B	90089			PIN LOCATING DIAMOND	L	4201367	8	147100
C	4201364			RING SPT GYRO GYRO CONT	L	4201367	8	147200
A	90401			PASSIVATION SS	L	4201364	9	147300
B	4201368	WL	A	GYRO SUBASSY	L	4201368	7	147400
C	4201371		A	CHOKE L1 GYRO CONT ASSY	L	4201368	7	147500
C	4201372		A	CHOKE L2 GYRO CONT ASSY	L	4201368	7	147600
D	4201369	CD		ELECT SUBASSY GYRO CONT	L	4201370	6	147700
B	90312			STUD LOCK FEMALE	L	4201369	7	147800
C	90314			CONNECTOR INSTL DEM-9	L	4201369	7	147900
B	90433			SURFACE TREATMENT	L	4201369	7	148000
J	4201373		B	ELECTRONICS SUBASY SCHEM	L	4201369	7	148100
B	4201370	TL		GYRO CONTROL ASSY	L	4201370	6	148200

JPL 1587 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 45 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	90313			MALE LOCK ASSY INSTL	L	4201370	7	148300
C	4201374			CAPACITOR SUBASSY SCHEM	L	4201370	6	148400
A	4201374	PL		CAPACITOR SUBASSY	L	4201374	7	148500
J	4201375		B	GYRO SUBASSY SCHEMATIC	L	4201370	6	148600
A	4201375	PL	B	GYRO SUBASSY GYRO CONT	L	4201375	7	148700
D	490844			GYRO ELECT ASSY	V	4201370	6	148800
C	490801			COMMAND CURRENT REG	V	490844	7	148900
D	490800			DIAG ELECT SCHEM	V	490801	8	149000
A	490802			FILM WELD	V	490801	8	149100
A	490803			MARKING COMM CURRENT REG	V	490801	8	149200
B	490834			TERMINAL BOARD	V	490801	8	149300
A	509555			WELDING SCHEDULE	V	490801	8	149400
A	490809			RELAY & DIODE	V	490844	7	149500
B	490808			DIAG ELECT SCHEM	V	490809	8	149510
A	490810			FILM WELD	V	490809	8	149600
A	490811			MARKING RELAY & DIODE	V	490809	8	149700
A	509555			WELDING SCHEDULE	V	490809	8	149800
C	490815			PREAMPLIFIER	V	490844	7	149810
D	490812			DIAG ELECT SCHEM	V	490815	8	149815
A	490813			MARKING PREAMPLIFIER	V	490815	8	149820
A	490804			VOLTAGE REGULATOR	V	490813	9	149825
A	490805			FILM WELD	V	490804	10	149830
C	490806			DIAG ELECT SCHEM	V	490804	10	149835
A	490807			MARKING VOLTAGE REG	V	490804	10	149840
C	490830			ASSY TRANSISTOR	V	490804	10	149845
B	490835			INSULATOR TRANSISTOR	V	490830	11	149850
A	490814			FILM WELD	V	490815	8	149855
B	490834			TERMINAL BOARD	V	490815	8	149860
A	509555			WELDING SCHEDULE	V	490815	8	149865
C	490817			DC AMPLIFIER	V	490844	7	149900
D	490812			DIAG ELECT SCHEM	V	490817	8	150000
A	490818			FILM WELD	V	490817	8	150200
A	490819			MARKING DC AMPLIFIER	V	490817	8	150300
D	490830			ASSY TRANSISTOR	V	490817	8	150400
C	490829			HEAT SINK TRANSISTOR	V	490830	9	150410
B	490834			TERMINAL BOARD	V	490817	8	150500
A	490821			ROLL ONE SHOT	V	490844	7	150510
C	490820			DIAG ELECT SCHEM	V	490821	8	150515
A	490822			FILM WELD	V	490821	8	150520
A	490823			MARKING ONE ROLL SHOT	V	490821	8	150525

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 46 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	509555			WELDING SCHEDULE	V	490821	8	150530
A	490825			CAPACITOR ASSY	V	490844	7	150600
C	490824			DIAG ELECT SCHEM	V	490825	8	150700
A	490826			FILM WELD	V	490825	8	150800
A	490827			MARKING CAPACITOR CYCLE	V	490825	8	150900
A	509555			WELDED SCHEDULE	V	490825	8	151000
D	490832			SUBCHAS ELECT EQUIP	V	490844-1	7	151010
B	490860			MARKING SUBCHASSIS	V	490832	8	151015
D	490838			MULTI LAYER BD A	V	490844	7	151100
A	490837			PC BD MULTILAYER	V	490838	8	151200
D	490839			MARKING MULTI LAYER BD	V	490838	8	151300
C	490842			INSULATION MULTILAYER BD	V	490838	8	151400
B	490861			WIRE ELECT NICKEL ROUND	V	490838	8	151500
D	490841			DIAG ELECT SCHEM	V	490844	7	151600
C	490853			CONNECTOR ASSY 25 PIN	V	490844	7	151610
B	490857			CONNECTOR SUBASSY	V	490853	8	151615
B	490861			WIRE ELECT NICKEL ROUND	V	490857	9	151620
A	490863			MARKING CONN	V	490853	8	151625
C	490854			CONNECTOR ASSY 37 PIN	V	490844	7	151700
B	490856			CONNECTOR SUBASSY	V	490854	8	151800
B	490859			WIRING SUBASSY	V	490856	9	151810
B	490861			WIRE ELECT NICKEL ROUND	V	490859	10	151815
A	490855			WIRE ELECT TIN PLATE	V	490859	10	151820
B	490861			WIRE ELECT NICKEL ROUND	V	490855	11	151825
B	490861			WIRE ELECT NICKEL ROUND	V	490856	9	151900
A	490862			MARKING CONN	V	490854	8	152000
A	509553			INDEX MC CONTROL ELECT	V	4201370	6	152010
A	F-23			ANODIZING SULFURIC ACID	V	509553	7	152015
A	F-68			ENAMEL SYNTHETIC	V	509553	7	152020
A	411329		F	PLASTIC SHEET	V	509553	7	152025
A	414742			TERMINAL STUD HOLLOW	V	509553	7	152030
A	415106		C	ALUMINUM ALLOY CHANNEL	V	509553	7	152035
A	415123		C	ALUMINUM ALLOY BAR	V	509553	7	152040
A	415501		A	WIRE ELECT NICKEL FLAT	V	509553	7	152045
A	415572		A	WIRE ELECT NICKEL ROUND	V	509553	7	152050
A	415787			FILM PHOTO SHEET	V	509553	7	152055
A	492201			SURFACE TREATMENT	V	509553	7	152060
A	509552			MARKING TRANSFORMER	V	509553	7	152065
D	4201400		P	ATTITUDE CONTROL	L	4201579	5	152100
	DS 82			SCREW INTERNAL WRENCHING	L	4201400	6	152110

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 47 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4201400	IL	P	ATTITUDE CONTROL ELECT	L	4201400	6	152200
J	4201405		O	CHASSIS ATTITUDE CONTROL	L	4201400	7	152600
B	4201405	IL	M	CHASSIS ATTITUDE CONTROL	L	4201405	8	152700
J	4201408		N	MODULE POWER SWITCH	L	4201400	6	152800
J	4201406		M	ROUTING GUIDE-PWR SWITCH	L	4201408	7	152900
B	4201408	IL	N	MOD-PWR SW SWITCHING	L	4201408	7	153000
D	4201519		N	SCHEMATIC DIAG PWR SW	L	4201408	7	153100
J	4201410		P	MOD-PRE-AMPL SW AMPL ATT	L	4201400	6	153200
J	4201407		O	ROUTING GUIDE-PREAMPL	L	4201410	7	153300
B	4201410	IL	N	MOD-PRE-AMPL SW AMPL	L	4201400	7	153400
D	4201518		P	SCHEM DIAG-PREAMPL	L	4201410	7	153500
J	4201411		N	MODULE-CONTROL JET VANE	L	4201400	6	153600
B	4201411	IL	M	JET VANE CONTROL	L	4201411	7	153700
J	4201412		M	ROUTING GUIDE-CONTROL	L	4201411	7	153800
D	4201520		M	SCHEM DIAG-JET VANE CONT	L	4201411	7	153900
J	4201413		N	SCHEMATIC JET VANE CONT	L	4201400	6	154000
J	4201414		N	MOD-RELAY NON-LATCHING	L	4201400	6	154100
B	4201414	IL	N	MOD-RELAY NON-LATCHING	L	4201414	7	154200
J	4201495		L	MYLAR RELAY NON-LATCHING	L	4201414	7	154300
J	4201415		M	MODULE ASSY BUFFER	L	4201400	6	154400
J	4201403		M	ROUTING GUIDE BUFFER	L	4201415	7	154500
B	4201415	IL	M	MODULE-BUFFER TELEMETRY	L	4201415	7	154600
D	4201513		L	SCHEM DIAG-TELEMETRY BUF	L	4201415	7	154700
J	4201416		N	MOD-SW LOGIC A DISCREET	L	4201400	6	154800
B	4201416	IL	N	MOD-SWITCHING LOGIC A	L	4201416	7	154900
J	4201497		L	ROUTING GUIDE-SW LOGIC A	L	4201416	7	155000
D	4201516		M	SCHEMATIC DIAGRAM	L	4201416	7	155100
J	4201418		N	MODULE ASSY CANOPUS	L	4201400	6	155200
B	4201418	IL	N	MOD-CANOPUS & SUN GATE	L	4201418	7	155300
J	4201430		L	ROUTING GUIDE CANOPUS	L	4201418	7	155400
D	4201514		M	SCHEM DIAG-CANOPUS&SUN	L	4201418	7	155500
J	4201419		N	MODULE CONT GYRO SWITCH	L	4201400	6	155600
B	4201419	IL	N	MOD CONT GYRO SWITCH	L	4201400	7	155700
J	4201428		M	ROUTING GUIDE-CONTROL	L	4201419	7	155800
D	4201517		P	SCHEMATIC DIAG	L	4201419	7	155900
J	4201420		O	MODULE ASSY RECTIFIER	L	4201400	6	156000
B	4201420	IL	N	MOD-RECTIFIER & REG	L	4201420	7	156100
J	4201431		M	ROUTING GUIDE-PWR SUPP	L	4201420	7	156200
D	4201512		N	SCHEM DIAG-RECTIFIER REG	L	4201420	7	156300
J	4201422		N	MODULE TEST CONNECTOR	L	4201400	6	156400

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 48 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
	DS 82			SCREW-INTERNAL WRENCHING	L	4201422	7	156410
B	4201422	IL	M	MODULE-TEST CONNECTOR	L	4201422	7	156500
J	4201423		N	MODULE-RELAY LATCHING	L	4201400	6	156600
B	4201423	IL	N	MOD-RELAY LATCHING-ATT	L	4201400	6	156700
J	4201496		L	ROUTING GUIDE-LATCHING	L	4201423	7	156800
J	4201424		M	POWER SUPPLY CAPACITORS	L	4201400	6	156900
B	4201424	IL	M	MODULE-POWER SUPPLY	L	4201424	7	157000
J	4201425		M	DERIVED RATE CAPACITORS	L	4201400	6	157100
B	4201425	IL	M	MODULE-CAPACITORS	L	4201425	7	157200
J	4201426		N	CASE HARNESS CONNECTOR	L	4201400	6	157300
	90312			STUD LOCK FEMALE	L	4201426	7	157310
B	4201426	IL	M	MODULE-CASE HARNESS CONN	L	4201427	7	157400
B	4201532		L	INSULATOR TRANSISTOR	L	4201426	7	157500
J	4201429		N	MODULE	L	4201400	6	157600
	DS 82			SCREW INTERNAL WRENCHING	L	4201429	7	157610
B	4201429	IL	M	MOD-LO RING HARNESS CONN	L	4201429	7	157700
J	4201530		N	ROUTING GUIDE-ROLL	L	4201429	7	157800
J	4201500		M	MODULE-SWITCHING LOGIC B	L	4201400	6	157900
B	4201500	IL	N	MOD-SW LOGIC B DISCREET	L	4201500	7	158000
J	4201501		L	ROUTING GUIDE	L	4201500	7	158100
D	4201515		M	SCHEM DIAG-SW LOGIC-B	L	4201500	7	158200
J	4201505		O	BRACKET SPT ATT CONTROL	L	4201400	6	158300
B	4201505	IL	M	BRACKET-SPT A/C	L	4201505	7	158400
D	4201506		M	STUD-GROUND	L	4201400	6	158500
B	4201506	IL	M	STUD-GROUND	L	4201506	7	158600
J	4201508		R	SCHEMATIC-LOGIC SWITCH	L	4201400	6	158700
J	4201509		P	SCHEMATIC-T/M BUFF	L	4201400	6	158800
J	4201510		Q	SCHEMATIC SW AMPL	L	4201400	6	158900
J	4201511		E	A/C HARNESS INTERCONNECT	L	4201400	6	158910
D	4201526		L	PLATE END	L	4201400	6	159000
D	4201527		L	PLATE BOTTOM	L	4201400	6	159100
J	4201528		R	A/C FUNCTION DIAG	L	4201400	6	159200
J	4201529		Q	MOD-ROLL SEARCH INHIBIT	L	4201400	6	159300
B	4201529	IL	N	MOD-ROLL SEARCH INHIBIT	L	4201529	7	159400
D	4201531		G	SCHEM DIAG-ROLL SEARCH	L	4201529	7	159500
J	4201537		M	MATRIX A/C ELECTRONICS	L	4201400	6	159600
J	4201535		M	ROUTING GUIDE-MATRIX	L	4201537	7	159700
J	4201536		M	GUIDE INTERCONNECT A/C	L	4201537	7	159800
D	4201538		L	TRANSFORMER-JET VANE	L	4201400	6	159900
B	4201538	IL	L	TRANSFORMER-JET VANE CONT	L	4201538	7	160000

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 49 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4201539		L	TRANSFORMER-SWITCHING	L	4201400	6	160100
B	4201539	IL	L	TRANSFORMER-SWITCHING	L	4201539	7	160200
D	4201541		A	INSTALLATION-TRIMMING	L	4201400	6	160300
B	4201541	IL		INSTALLATION TRIMMING	L	4201400	6	160400
J	4201614		E	CHAS ATT CONT & CC&S ASS	L	4201579	5	160800
J	4901046		C	CHASSIS BASIC ASSY	L	4201614	6	160900
A	90433			SURFACE TREATMENT	L	4901046	7	161000
J	4901107		E	TRANSDUCER TEMPERATURE	L	4201614	6	161100
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4901107	7	161200
B	4800078		B	CLAMP WIRE	L	4901107	7	161300
C	4901105			CONNECTOR BRACKET	L	4901107	7	161400
B	4901137		A	GROMMET TEFLON	L	4901107	7	161500
D	4901158		A	SCREW MACHINE PAN HEAD	L	4901107	7	161600
J	4201844		A	RELAY HOLD T/R SUBASSY 5	L	4201579	5	161700
B	90312			STUD LOCK FEMALE	L	4201844	6	161710
C	90314			CONNECTOR INSTL DEM-9	L	4201844	6	161715
A	90344			WASHER FLAT	L	4201844	6	161720
C	3158989		B	STRAP RELAY	L	4201844	6	161725
D	4201845		A	SUBCHASSIS RELAY HOLD	L	4201844	6	161800
B	90433			SURFACE TREATMENT	L	4201845	7	161810
D	4201846			CB ASSY RELAY HOLD T/R	L	4201844	6	161900
D	4201847			TB RELAY HOLD T/R	L	4201846	7	162000
	DS 96			TERMINAL BIFURCATED	L	4201847	8	162010
	DS 99			TERMINAL BIFURCATED	L	4201847	8	162015
D	4201848		A	RELAY HOLD T/R SCHM DIAG	L	4201844	6	162100
A	4201848	PL	A	RELAY HOLD T/R 5A9	L	4201848	7	162200
J	4900662			CASE 7 HARNESS ASSY	L	4201579	5	162400
B	4900570		F	9W5 WIRING HARNESS	L	4900662	6	162500
B	4900571		C	9W7 WIRING HARNESS	L	4900662	6	162600
D	4900661			SPT ASSY CASE HARNESS	L	4900662	6	162700
D	4900659		B	BRACKET CONNECTOR MTG	L	4900661	7	162800
C	4900658		A	END BRACKET	L	4900659	8	162900
C	4900670		A	END BRACKET	L	4900659	8	163000
J	4900660		B	SUPPORT CABLE HARNESS	L	4900661	7	163100
D	4900671			BRACKET CONNECTOR MTG	L	4900661	7	163200
D	4901158		A	SCREW MACHINE PAN HEAD	L	4201579	5	163300
D	4901159		A	SCREW MACHINE INTERNAL	L	4201579	5	163400
A	4901203			SCREW MACHINE FLAT HEAD	L	4201579	5	163500
J	4400442		P	PWR REG ASSY 4A8	L	4901042	4	163600
D	90082			DIODE INSTL TRANSITION	L	4400442	5	163700

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 50 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	90083			DIODE INSTL TRANSITION	L	4400442	5	163800
C	90358			TRANSISTOR INSTL	L	4400442	5	163900
C	90429			POTTING BOAT	L	4400442	5	163910
C	90434			POTTING BOAT	L	4400442	5	164000
C	90467			TRANSISTOR ASSY INST	L	4400442	5	164100
J	4400429		L	CB 3 ASSY PWR REG	L	4400442	5	164200
A	90127			TRANSIPAD INSTALLATION	L	4400429	6	164300
A	90303			TRANSIPAD INSTALLATION	L	4400429	6	164400
C	90447			TERMINAL	L	4400429	6	164500
C	90448			TERMINAL	L	4400429	6	164600
J	4400430		G	CB3 P CKT PWR REGULATOR	L	4400429	6	164700
J	4400431		L	CB 4 ASSY PWR REG	L	4400442	5	164800
A	90127			TRANSIPAD INSTALLATION	L	4400431	6	164900
A	90303			TRANSIPAD INSTALLATION	L	4400431	6	165000
C	90447			TERMINAL	L	4400431	6	165100
C	90448			TERMINAL	L	4400431	6	165200
J	4400432		E	CB4 P CKT PWR REGULATOR	L	4400431	6	165300
J	4400433		B	CIRCUIT BD 5 ASSY	L	4400442	5	165400
C	90447			TERMINAL	L	4400433	6	165500
C	90448			TERMINAL	L	4400433	6	165600
J	4400434		A	CB5 P CKT PWR REGULATOR	L	4400433	6	165700
J	4400435		B	CB 6 ASSY PWR REG	L	4400442	5	165800
C	90447			TERMINAL	L	4400435	6	165900
C	90448			TERMINAL	L	4400435	6	166000
J	4400436		A	CB6 P CKT REGULATOR	L	4400435	6	166100
J	4400437		C	CB 7 ASSY PWR REG	L	4400442	5	166200
C	90252			SCREW QUINTLOCK	L	4400437	6	166300
C	90447			TERMINAL	L	4400437	6	166400
C	90448			TERMINAL	L	4400437	6	166500
J	4400463		C	CB7 P CKT PWR REGULATOR	L	4400437	6	166600
[illegible]	4400441		D	SCHEMATIC DIAG PWR REG	L	4400442	5	166700
A	4400441	PL	P	PWR REGULATOR	L	4400441	6	166800
D	4400450		E	TRANSFORMER	L	PL 4400441	7	166900
D	4400506		A	FABRICATION	L	4400450	8	167000
C	4400451		D	XFORMER T8&T9 PWR REG	L	PL 4400441	7	167100
D	4400506		A	FABRICATION	L	4400451	8	167200
C	4400452		D	TRANSFORMER T12	L	PL 4400441	7	167300
D	4400506		A	FABRICATION	L	4400452	8	167400
C	4400453		C	TRANSFORMER T13 T17	L	PL 4400441	7	167500
D	4400506		A	FABRICATION	L	4400453	8	167600

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 51 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4400457		C	CHOKE L1 L2	L	PL 4400441	7	167700
D	4400508		A	FABRICATION	L	4400457	8	167800
C	4400458		C	CHOKE L3	L	PL 4400441	7	167900
D	4400508		A	FABRICATION	L	4400458	8	168000
C	4400454		D	TRANSFORMER T14 T18	L	PL 4400441	7	168100
D	4400506		A	FABRICATION	L	4400454	8	168200
D	4400455		F	TRANSFORMER T15 & T19	L	PL 4400441	7	168300
D	4400507		A	FABRICATION	L	4400455	8	168400
C	4400456		C	TRANSFORMER T16 T20	L	PL 4400441	7	168500
D	4400506		A	FABRICATION	L	4400456	8	168600
B	4400442	WL	G	WIRE LIST PWR REGULATOR	L	4400442	5	168700
J	4400443		H	CHASSIS POWER REGULATOR	L	4400442	5	168800
C	4400461			BRACKET J5 CONNECTOR	L	4400443	6	168900
C	4400462			BRACKET J6 CONNECTOR	L	4400443	6	169000
D	4400444		C	CAPACITOR HOLDER ASSY	L	4400442	5	169100
D	4400459		B	CAPACITOR HOLDER	L	4400444	6	169200
J	4400446		E	CIRCUIT BD 1 ASSY	L	4400442	5	169300
C	90447			TERMINAL	L	4400446	6	169400
C	90448			TERMINAL	L	4400446	6	169500
J	4400447		B	CB1 P CKT PWR REGULATOR	L	4400446	6	169600
J	4400448		C	CIRCUIT BD 2 ASSY	L	4400442	5	169700
C	90447			TERMINAL	L	4400448	6	169800
C	90448			TERMINAL	L	4400448	6	169900
J	4400449		B	CB2 P CKT PWR REGULATOR	L	4400448	6	170000
D	4400460		C	CAPACITOR HOLDER	L	4400442	5	170100
D	4400459		B	CAPACITOR HOLDER	L	4400460	6	170200
J	4400515		C	FABRICATION	L	4400442	5	170300
C	4400530			INSULATOR PLATE	L	4400442	5	170400
C	4400540		A	TB 10 PWR REGULATOR	L	4400442	5	170420
B	4400541			TB10 PWR REGULATOR	V	4400540	6	170425
C	4400542		A	TB 11 PWR REGULATOR	L	4400442	5	170430
B	4400543			TB 11 PWR REGULATOR	L	4400542	6	170435
D	4400679			TRANSFORMER T5 T6	L	4400442	5	170500
C	4400680			DIODE LUG	L	4400442	5	170600
B	4400683			LUG GROUND	L	4400442	5	170700
D	4400700			BRACE TOROID	L	4400442	5	170800
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4400442	5	170900
J	4400504		B	BATTERY ASSEMBLY	LX	4901042	4	171000
J	4400502		D	CHASSIS BATTERY 4A14	LX	4400504	5	171100
J	4400503		A	COVER BATTERY CHASSIS	LX	4400504	5	171200

JPL 1887 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 52 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	4400557		A	VENDOR LIST OF DOCUMENTS	LX	4400504	5	171300
J	257-1000		D	BATTERY ASSEMBLY	V	4400504	5	171400
D	4600576		A	SURFACE TEMP TRANSDUCER	L	257-1000	6	171500
B	257-1000	PL	A	BATTERY ASSY PARTS LIST	V	257-1000	6	171600
J	257-1001		F	PRE-CANNING ASSY	V	257-1000	6	171700
E	257-1002			MONOBLOCK ASSY 9 CELL	V	257-1001	7	171800
C	257-2013			3 CELL MONOBLOCK ASSY	V	257-1002	8	171900
C	257-2001		A	CONTAINER 3 CELL	V	257-2013	9	172000
C	257-2002		A	COVER POTTING	V	257-2013	9	172100
B	257-2009		A	VENT TUBE PLUG	V	257-2013	9	172200
E	257-2011		b	POS & NEG ASSY	V	257-2013	9	172300
C	257-2004		F	POSITIVE PLATE	V	257-2011	10	172400
C	257-2005		C	NEGATIVE ASSY	V	257-2011	10	172500
B	257-2025		B	TRANSDUCER MTG BLOCK ASY	V	257-2026	9	172600
C	257-2010		D	GRID ASSY NEGATIVE	V	257-2005	11	172700
B	257-2012		A	3 CELL COVER	V	257-2013	9	172800
C	257-2022			POTTING CHANNEL	V	257-1002	8	172900
C	257-2026		C	TRANSDUCER ASSY	V	257-1002	8	173000
B	257-2025			TRANSDUCER MTG BLOCK	V	257-2026	9	173100
E	257-1005		D	9 CELL MONOBLOCK ASSY	V	257-1001	7	173200
C	257-2015			CONDUIT	V	257-1005	8	173300
B	257-2017			CONDUIT COVER	V	257-1005	8	173400
	257-2018			POTTING CHANNEL END	V	257-1005	8	173500
C	257-2019			POTTING CHANNEL	V	257-1005	8	173600
C	257-1007		E	TERMINAL BOARD ASSY	V	257-1001	7	173700
B	257-1006		C	TERMINAL BOARD SUBASSY	V	257-1007	8	173800
B	257-1008			INSULATOR	V	257-1007	8	173900
B	257-2024			POTTING COVER	V	257-1001	7	174000
B	257-2023			POTTING COVER	V	257-2024	8	174100
C	257-1003			WIRING DIAGRAM	V	257-1000	6	174200
A	257-2003			VENT PLUG	V	257-1000	6	174300
A	257-2007			SEPARATOR POSITIVE	V	257-1000	6	174400
A	257-2008			SEPARATOR POSITIVE	V	257-1000	6	174500
C	257-2027		B	POLYSTYRENE DETAILS	V	257-1000	6	174600
C	257-2028		F	WIRE DATA	V	257-1000	6	174700
	257-2031		B	TAPE	V	257-1000	6	174800
	150-10074			EXTRUDED CHANNEL	V	257-1000	6	174900
J	4400556		C	POWER SUBSYS ELECT ASY 1	L	4901042	4	175000
D	4400394		F	400 CPS THREE PHASE	L	4400556	5	175100
B	90312			STUD LOCK FEMALE	L	4400394	6	175200

JPL 1887 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 53 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	90314			CONNECTOR INSTL DEM-9	L	4400394	6	175300
C	90358			TRANSISTOR INSTL	L	4400394	6	175400
D	4400393		D	400 CPS THREE PHASE	L	4400394	6	175500
A	4400393	PL	D	400 CPS THREE PHASE	L	4400393	7	175600
C	4400399		G	TRANSFORMER T1 T2 T3	L	PL 4400394	8	175700
D	4400506		A	FABRICATION	L	4400399	9	175800
C	4400400		E	TRANSFORMER T4 T5 T6	L	PL 4400393	8	175900
D	4400506		A	FABRICATION	L	4400400	9	176000
C	4400402		G	CHOKE THREE PHASE 400	L	PL 4400393	8	176100
D	4400508		A	FABRICATION	L	4400402	9	176200
B	4400394	WL	A	WIRE SCHEDULE 400 CPS	L	4400394	6	176300
D	4400395		A	SUBCHASSIS 4A18	L	4400394	6	176400
B	90433			SURFACE TREATMENT	L	4400395	7	176500
D	4400408		G	400 CPS SINGLE PH INV	L	4400556	5	176600
B	90312			STUD LOCK FEMALE	L	4400408	6	176700
C	90314			CONNECTOR INSTL DEM-9	L	4400408	6	176800
C	90358			TRANSISTOR INSTL	L	4400408	6	176900
D	4400407		F	400 CPS SINGLE PH SCHEM	L	4400408	6	177000
A	4400407	PL	F	400 CPS SINGLE PHASE INV	L	4400407	7	177100
C	4400410		D	TRANSFORMER T1	L	PL 4400407	8	177200
D	4400506		A	FABRICATION	L	4400410	9	177300
C	4400411		C	TRANSFORMER T2	L	PL 4400407	8	177400
D	4400506		A	FABRICATION	L	4400411	9	177500
B	4400408	WL	C	400 CPS SINGLE PHASE	L	4400408	6	177900
D	4400409		B	SUBCHASSIS 400 CPS SINGL	LX	4400408	6	178000
B	90433			SURFACE TREATMENT	L	4400409	7	178100
D	4901058		B	SUBCHASSIS MACHINED	L	4400409	7	178200
C	4400413		C	CHOKE L5 SINGLE PHASE	L	4400408	6	178210
D	4400478		C	CIRCUIT BD 1 ASSY	L	4400408	6	178300
A	90127			TRANSIPAD INSTALLATION	L	4400478	7	178400
C	90447			TERMINAL	L	4400478	7	178500
C	90448			TERMINAL	L	4400478	7	178600
D	4400407		F	400 CPS SINGLE PH SCHEM	L	4400478	7	178700
A	4400407	PL	F	400 CPS SINGLE PHASE INV	L	4400407	8	178800
C	4400479			CB1 P CIRCUITRY	L	4400478	7	178900
D	4400510		C	FABRICATION	L	4400408	6	179000
J	4400416		D	BTRY CHARGER SUBASSY	L	4400556	5	179100
D	90082			DIODE INSTL TRANSITION	L	4400416	6	179200
B	90312			STUD LOCK FEMALE	L	4400416	6	179300
C	90314			CONNECTOR INSTL DEM-9	L	4400416	6	179400

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 54 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	90358			TRANSISTOR INSTL	L	4400416	6	179500
C	90467			TRANSISTOR ASSY INST	L	4400416	6	179510
J	4400415		K	BTRY CHARGER SCHEMATIC	L	4400416	6	179600
A	4400415	PL	G	BTRY CHARGER 4A13	L	4400415	7	179700
C	4400405		C	TRANSFORMER T2 BTRY	L	PL 4400415	8	179800
D	4400506		A	FABRICATION	L	4400405	9	179900
C	4400406		E	MAGNETIC AMPL MA-1	L	PL 4400415	8	180000
D	4400507		A	FABRICATION	L	4400406	9	180100
C	4400419		C	CHOKE L1 BTRY CHARGER	L	PL 4400415	8	180200
D	4400508		A	FABRICATION	L	4400419	9	180300
C	4400420		A	TRANSFORMER T1	L	PL 4400415	8	180400
D	4400506		A	FABRICATION	L	4400420	9	180500
C	4400490		B	CHOKE L2 BTRY CHARGER	L	PL 4400415	8	180600
D	4400508		A	FABRICATION	L	4400490	9	180700
J	4400417		C	SUBCHASSIS BATTERY CHARG	L	4400416	6	180800
B	90433			SURFACE TREATMENT	L	4400417	7	180900
D	4901058		B	SUBCHASSIS MACHINED	L	4400417	7	181000
J	4400418		E	CIRCUIT BD 1 ASSY	L	4400416	6	181100
C	90447			TERMINAL	L	4400418	7	181200
C	90448			TERMINAL	L	4400418	7	181300
J	4400415		K	BTRY CHARGER SCHEMATIC	L	4400418	7	181400
A	4400415	PL	G	BTRY CHARGER 4A13	L	4400415	8	181500
J	4400495		B	CB1 P CKT BTRY CHARGER	L	4400418	7	181600
J	4400464		F	CB 2 ASSY BTRY CHARGER	L	4400416	6	181700
C	90252			SCREW QUINTLOCK	L	4400464	7	181800
C	90447			TERMINAL	L	4400464	7	181900
C	90448			TERMINAL	L	4400464	7	182000
J	4400415		K	BTRY CHARGER SCHEMATIC	L	4400464	7	182100
A	4400415	PL	G	BTRY CHARGER 4A13	L	4400415	8	182200
J	4400465		C	CB2 P CKT BTRY CHARGER	L	4400464	7	182300
D	4400470		C	TRANSFORMER T3	L	4400416	6	182400
D	4400508		A	FABRICATION	L	4400470	7	182500
B	4400491	WL	G	WIRE LIST BTRY CHARGER	L	4400416	6	182600
D	4400512		C	FABRICATION 4A13	L	4400416	6	182700
D	4400422		F	2.4 KC INVERTER SUBASSY	LX	4400556	5	182800
B	90312			STUD LOCK FEMALE	L	4400422	6	182900
C	90314			CONNECTOR INSTL DEM-9	L	4400422	6	183000
D	4400421		J	2.4 KC INVERTER SCHEM	L	4400422	6	183100
A	4400421	PL	H	2.4 KC INVERTER	L	4400421	7	183200
C	4400424		E	TRANSFORMER T1 2.4 KCPS	L	PL 4400421	8	183300

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 55 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4400506		A	FABRICATION	L	4400424	9	183400
C	4400425		D	TRANSFORMER T2	L	PL 4400421	8	183500
D	4400506		A	FABRICATION	L	4400425	9	183600
C	4400426		D	TRANSFORMER T3	L	PL 4400421	8	183700
D	4400506		A	FABRICATION	L	4400426	9	183800
C	4400427		D	CHOKE L1 2.4 KCPS	L	PL 4400421	8	183900
D	4400508		A	FABRICATION	L	4400427	9	184000
C	4400439		D	TRANSFORMER T4	L	PL 4400421	8	184100
D	4400506		A	FABRICATION	L	4400439	9	184200
C	4400440		E	TRANSFORMER T5	L	PL 4400421	8	184300
D	4400506		A	FABRICATION	L	4400440	9	184400
B	4400422	WL	D	WIRE SCHEDULE	L	4400422	6	184500
D	4400423		A	SUBCHASS 2.4KC INVERTER	L	4400422	6	184600
B	90433			SURFACE TREATMENT	L	4400423	7	184700
D	4901058		B	SUBCHASSIS MACHINED	L	4400423	7	184800
D	4400481		D	CIRCUIT BD 1 ASSY	L	4400422	6	184900
C	90448			TERMINAL	L	4400481	7	185000
C	90448			TERMINAL	L	4400481	7	185100
D	4400421		J	2.4 KC INVERTER SCHEM	L	4400481	7	185200
A	4400421	PL	H	2.4KC INVERTER	L	4400421	8	185300
4	4400482		B	CBL P CKT 2.4 KC INV	L	4400481	7	185400
D	4400511		C	FABRICATION 4A15/4A16	L	4400422	6	185500
J	4400469		G	PWR DISTR SUBASSY	L	4400556	5	185600
C	90314			CONNECTOR INSTL DEM-9	L	4400469	6	185700
B	4400469	WL	D	PWR DISTRIBUTION	L	4400469	6	185800
J	4400471		B	SUBCHAS PWR DISTRIBUTION	L	4400469	6	185900
B	90433			SURFACE TREATMENT	L	4400471	7	186000
J	4400472		K	CBL 1 ASSY PWR DISTR	L	4400469	6	186100
	DS 80			INSULATOR	L	4400472	7	186110
	DS 96			TERMINAL BIFURCATED	L	4400472	7	186115
	DS 99			TERMINAL BIFURCATED	L	4400472	7	186120
C	90252			SCREW QUINTLOCK	L	4400472	7	186200
A	90303			TRANSIPAD INSTALLATION	L	4400472	7	186300
C	90447			TERMINAL	L	4400472	7	186400
C	90448			TERMINAL	L	4400472	7	186500
J	4400474		B	P CKT PWR DISTRIBUTION	L	4400472	7	186600
J	4400505		L	PWR DISTR SCHEMATIC	L	4400472	7	186700
A	4400505	PL	J	PWR DISTRIBUTION	L	4400472	7	186800
J	4400473		E	CBL 2 ASSY PWR DISTR	L	4400469	6	186900
A	90303			TRANSIPAD INSTALLATION	L	4400473	7	187000

JPL 1587 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 56 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	90447			TERMINAL	L	4400473	7	187100
C	90448			TERMINAL	L	4400473	7	187200
J	4400475		B	P CKT CBL PWR DISTR	L	4400473	7	187300
J	4400505		L	PWR DISTR SCHEMATIC	L	4400473	7	187400
A	4400505	PL	J	PWR DISTRIBUTION	L	4400473	7	187500
J	4400505		L	PWR DISTR SCHEMATIC	L	4400469	6	187600
A	4400505	PL	J	PWR DISTRIBUTION	L	4400505	7	187700
C	4400476		C	TRANSFORMER T1 PWR DISTR	L	PL 4400505	8	187800
D	4400506		A	FABRICATION	L	4400476	9	187900
C	4400477		D	CHOKE L1 PWR DISTR	L	PL 4400505	8	188000
D	4400508		A	FABRICATION	L	4400477	9	188100
D	4400514		C	FABRICATION 4A11	L	4400469	6	188200
C	4400704		B	TERMINAL BD 3 ASSY	L	4400469	6	188220
C	4400705			TERMINAL BD 3 PWR	L	4400704	7	188225
D	4400484		E	PWR SYNCHRONIZER ASSY	L	4400556	5	188300
D	90082			DIODE INSTL TRANSITION	L	4400484	6	188400
B	90312			STUD LOCK FEMALE	L	4400484	6	188500
C	90314			CONNECTOR INSTL DEM-9	L	4400484	7	188600
J	4400483		J	PWR SYNCHRONIZER SCHEM	L	4400484	6	188700
A	4400483	PL	H	PWR SYNCHRONIZER	L	4400483	7	188800
C	4400498		D	TRANSFORMER T1	L	4400484	8	188900
D	4400506		A	FABRICATION	L	4400498	9	189000
C	4400499		C	TRANSFORMER T2	L	PL 4400483	8	189100
D	4400506		A	FABRICATION	L	4400499	9	189200
C	4400500		C	CHOKE L1 PWR	L	PL 4400483	8	189300
D	4400508		A	FABRICATION	L	4400500	9	189400
C	4400501		D	CHOKE L2 PWR	L	PL 4400483	8	189500
D	4400508		A	FABRICATION	L	4400501	9	189600
C	4400701		B	CHOKE	L	PL4400483	8	189610
B	4400484	WL	C	PWR SYNCHRONIZER	L	4400484	6	189700
D	4400485		B	SUBCHASS PWR SYNC 4A12	L	4400484	6	189800
J	4400486		G	CIRCUIT BD 1 ASSY	L	4400484	6	189900
A	90127			TRANSIPAD INSTALLATION	L	4400486	7	190000
C	90252			SCREW QUINTLOCK	L	4400486	7	190100
C	90447			TERMINAL	L	4400486	7	190200
C	90448			TERMINAL	L	4400486	7	190300
J	4400483		J	PWR SYNCHRONIZER	L	4400486	7	190400
A	4400483	PL	H	PWR SYNCHRONIZER	L	4400483	8	190500
J	4400487		A	CBL P CKT PWR SYNC	L	4400486	7	190600
J	4400488		E	CBL 2 ASSY PWR SYNC	L	4400484	6	190700

JPL 1587 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 57 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	90127			TRANSIPAD INSTALLATION	L	4400488	7	190800
C	90448			TERMINAL	L	4400488	7	190900
J	4400483		J	PWR SYNCHRONIZER	L	4400488	7	191000
A	4400483	PL	H	PWR SYNCHRONIZER	L	4400483	8	191100
J	4400489		B	CBR PCKT PWR SYNC	L	4400488	7	191200
D	4400513		C	FABRICATION 4A12	L	4400484	6	191300
J	4400607		B	CHASSIS POWER SUBSYSTEM	L	4400556	5	191400
J	4901046		C	CHASSIS BASIC ASSY	L	4400607	6	191500
A	90433			SURFACE TREATMENT	L	4901046	7	191600
J	4901107		E	TRANSDUCER TEMPERATURE	L	4400607	6	191700
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4901107	7	191800
B	4800078		B	CLAMP WIRE	L	4901107	7	191900
D	4901158		A	SCREW MACHINE PAN HEAD	L	4901107	7	192000
J	4400612		C	PYROTECHNIC CONT 8A1/8A2	L	4400556	5	192100
B	90312			STLD LOCK FEMALE	L	4400612	6	192200
C	90314			CONNECTOR INSTL DEM-9	L	4400612	6	192300
J	4400608		C	PYROTECHNIC CONT SCHEM	L	4400612	6	192400
A	4400608	PL	E	PYROTECHNIC CONT 8A1/8A2	L	4400608	7	192500
D	4400650	CD		XMTR PYROTECHNIC CONT	L	PL4400608	8	192600
B	4400613	WL	A	PYROTECHNIC CONT 8A1/8A2	L	4400612	6	192700
J	4400614		B	CBR PYROTECHNIC CONTROL	L	4400612	6	192800
C	90447			TERMINAL	L	4400614	7	192900
C	90448			TERMINAL	L	4400614	7	193000
J	4400615			CBR PC PYROTECHNIC CONT	L	4400614	7	193100
B	4400647			THIN FILM ADHESIVE BOND	L	4400614	7	193200
A	4400648			SPOT BONDING PROCEDURE	L	4400614	7	193300
J	4400616		A	CBR PYROTECHNIC CONTROL	L	4400612	6	193400
A	90127			TRANSIPAD INSTALLATION	L	4400616	7	193500
C	90447			TERMINAL	L	4400616	7	193600
C	90448			TERMINAL	L	4400616	7	193700
C	4400617		A	CBR PC PYROTECHNIC CONT	L	4400616	7	193800
B	4400647			THIN FILM ADHESIVE BOND	L	4400616	7	193900
A	4400648			SPOT BONDING PROCEDURE	L	4400616	7	194000
A	4400619			CAPACITOR INSULATOR	L	4400612	6	194100
J	4400620		B	SUBCHASS PYROTECHNIC	L	4400612	6	194200
B	90433			SURFACE TREATMENT	L	4400620	7	194300
C	4400618			SPT CB PYROTECHNIC CONT	L	4400620	7	194400
C	4400621			CAPACITOR INSULATOR	L	4400612	6	194500
C	4400622			CAPACITOR INSULATOR	L	4400612	6	194600
C	4400623			CAPACITOR INSULATOR	L	4400612	6	194700

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 58 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4400647			THIN FILM ADHESIVE BOND	L	4400612	6	194800
A	4400648			SPOT BONDING PROCEDURE	L	4400612	6	194900
A	4400649			POTTING PROCEDURE	L	4400612	6	195000
B	4400681			FILLER CHASSIS	L	4400612	6	195100
J	4900663		A	CASE & HARNESS ASSY	L	4400556	5	195200
D	4900661			SPT ASSY CASE HARNESS	L	4900663	6	195300
D	4900659		B	BRACKET CONNECTOR MTG	L	4900661	7	195400
C	4900658		A	END BRACKET	L	4900659	8	195500
C	4900670		A	END BRACKET	L	4900659	8	195600
J	4900660		B	SUPPORT CABLE HARNESS	L	4900661	7	195700
D	4900671			BRACKET CONNECTOR MTG	L	4900661	7	195800
B	4900564		E	9WR WIRING HARNESS	L	4900663	6	195900
B	4900583			9W18 WIRING HARNESS	L	4900663	6	196000
D	4901158		A	SCREW MACHINE PAN HEAD	L	4400556	5	196100
D	4901159		A	SCREW MACHINE INTERNAL	L	4400556	5	196200
J	4600519		D	DATA ENCODER	L	4901042	4	196300
A	90347			SCREW MACHINE	L	4600519	5	196400
A	509625	DL		MC DATA ENCODER FLIGHT	V	4600519	5	196500
A	509624	DL		INDEX NUM	V	4600519	5	196600
C	492271			FLOW CHART-FLIGHT DATA	V	509625	6	196700
D	4600498	CD		POWER SUPPLY 6A13	LX	4600519	5	196800
D	4901048		B	SUBCHASSIS MACHINED	L	4600498	6	196900
D	509666			POWER SUPPLY 6A13	V	4600498	6	197000
A	483333		A	ENCAPSULATION PROCEDURE	V	509666	7	197100
C	492106			XFORMER POWER STEP DOWN	V	509666	7	197200
C	492107		B	XFORMER POWER STEP DOWN	V	509666	7	197300
C	492108			CHOKE 1.7 MH	V	509666	7	197400
C	492109			CHOKE 2.0 MH	V	509666	7	197500
C	492338			BRKT #2 MTG MINIA XFORME	V	509666	7	197600
C	492357			BRKT #1 MTG MINIA XFORMR	V	509666	7	197700
D	492378		A	BUCKING SUPPLY & 3 VOLT	V	509666	7	197800
B	492241			INSULATOR-ROUND	V	492378	8	197900
C	492275			INSULATION SH 2 PCB	V	492378	8	197910
C	492377		A	PCB BUCKING SUPP&3 VOLT	V	492378	8	198000
E	492395		A	DIAGRAM ELECTRONIC SCHEM	V	492378	8	198100
D	492382		B	POWER SUPPLY 6A13A2	V	509666	7	198200
B	492241			INSULATOR-ROUND	V	492382	8	198300
C	492276			INSULATION SH#3 PCB	V	492382	8	198400
C	492381			PCB POWER SUPPLY	V	492382	8	198500
E	492395		A	DIAGRAM ELECTRONIC SCHEM	V	492382	8	198600

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 59 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
E	492395		A	DIAGRAM ELECTRONIC SCHEM	V	509666	7	198700
D	509679			ENCODER SUBCHASSIS 6A13	V	509666	7	198800
A	492201			SURFACE TREATMENT	V	509679	8	198900
C	509667			MARKING SUBCHASSIS	V	509679	8	199000
A	512667	WL		PT-TO-PT POWER SUPPLY	V	509666	7	199100
D	4901158		A	SCREW MACHINE PAN HEAD	L	4600519	5	199200
D	4901159		A	SCREW MACHINE INTERNAL	L	4600519	5	199300
D	4600501	CD	A	COMMAND DETECTOR 3A1	LX	4600519	5	199400
J	4600584		A	SUBCHASSIS ASSY COMMAND	L	4600501	6	199500
F	01-22781	D	B	DETECTOR 3A1	V	4600501	6	199600
	01-22607			OSCILLATOR AF V-CONTROL	O	01-22781	7	199700
F	01-22796	D	E	MOTHER BOARD ASSY 3A1	V	01-22781	7	199800
B	01-22796	DLM	E	DETECTOR 3A1 ASSY	V	01-22796	8	199900
D	84-22794	C	B	PWB DETECTOR 3A1A1	V	01-22796	8	200000
D	84-22795	D	B	PWB DET 3A1A2	V	01-22796	8	200100
D	01-25589	A		LP DUAL B & INVERT MOD	V	01-22781	7	200200
A	WS 01-25589	A		LP DUAL B AND INVERT MOD	V	01-25589	8	200210
C	43-25590	A		INSL B	V	01-25589	8	200220
C	43-25591	A	A	INSL P LP DUAL 3E	V	01-25589	8	200230
C	63-25588	A		LP DUAL B & INV SCHEM	V	01-25589	8	200300
D	01-25593	A		COMMAND INPUT AMPL MOD	V	01-22781	7	200600
A	LM 01-25593	A		COMMAND INPUT AMPL MOD	V	01-25593	8	200610
A	WS 01-25593	A		COMMAND INPUT AMPL MOD	V	01-25593	8	200620
C	43-25594	A		INSL #1 COMMAND INPUT	V	01-25593	8	200630
C	43-25595	A		INSL #2 COMMAND INPUT	V	01-25593	8	200640
C	63-25592	A		COMMAND INPUT AMPL SCHEM	V	01-25593	8	200700
D	01-25597	A		COMMAND OUTPUT AMPL MOD	V	01-22781	7	201000
A	LM 01-25597	A		COMMAND OUTPUT AMPL MOD	V	01-25597	8	201010
A	WS 01-25597	A		COMMAND OUTPUT AMPL MOD	V	01-25597	8	201020
C	43-25598	A		INSL #1 COMMAND OUTPUT	V	01-25597	8	201030
C	43-25599	A		INSL #2 COMMAND OUTPUT	V	01-25597	8	201040
C	63-25596	A		COMMAND AMPL SCHEMATIC	V	01-25597	8	201100
D	01-25621	A		PHASE DET DR MODULE	V	01-22781	7	201400
A	LM 01-25621	A		PHASE DET DR MODULE	V	01-25621	8	201410
A	WS 01-25621	A		PHASE DETECTOR DR MODULE	V	01-25621	8	201420
C	43-25622	A		INSL #1 PHASE DET DRIVER	V	01-25621	8	201430
C	43-25623	A		INSL #2 PHASE DET DRIVER	V	01-25621	8	201440
C	63-25620	A		PHASE DET DR SCHEMATIC	V	01-25621	8	201500
D	01-25629	A		LV PHASE DET MODULE	V	01-22781	7	201800
A	LM 01-25629	A		LV PHASE DETECTOR	V	01-25629	8	201810

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 60 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	WS 01-25629	A		LV PHASE DETECTOR MOD	V	01-25629	8	201820
C	43-25630	A		INSL #1 LV PHASE DET	V	01-25629	8	201830
C	43-25631	A		INSL #2 LV PHASE DET	V	01-25629	8	201840
C	63-25628	A		LOW VOLT PHASE DET SCHEM	V	01-25629	8	201900
A	WS 01-25661	A		LIMITER EMITTER FOLLOWER	V	01-25661	8	202020
D	01-25653	A		LIMITER AMPL MODULE	V	01-22781	7	202200
A	LM 01-25653	A		LIMITER AMPL MODULE	V	01-25653	8	202210
A	WS 01-25653	A		LIMITER AMPLIFIER MODULE	V	01-25653	8	202220
C	43-25654	A		INSL #1 LIMITER AMPL	V	01-25653	8	202230
C	43-25655	A		INSULATOR #2 LIMITER	V	01-25653	8	202240
C	63-25652	A		LIMITER AMPL SCHEMATIC	V	01-25653	8	202300
D	01-25657	A		LIMITER MODULE 25 KC	V	01-22781	7	202600
A	LM 01-25657	A		LIMITER MODULE	V	01-25657	8	202610
A	WS 01-25657	A		LIMITER MODULE	V	01-25657	8	202620
C	43-25658	A		INSULATOR #1 LIMITER	V	01-25657	8	202630
C	43-25659	A		INSULATOR #2 LIMITER	V	01-25657	8	202640
C	63-25656	A		LIMITER SCHEMATIC	V	01-25657	8	202700
D	01-25661	A		LIMITER EMITTER FOLLOWER	V	01-22781	7	203000
A	LM 01-25661	A		LIMITER EMITTER FOLLOWER	V	01-25661	8	203010
C	43-25662	A		INSL #1 LIMITER EMITTER	V	01-25661	8	203030
C	43-25663	A		INSULATOR #2 LIMITER	V	01-25661	8	203040
C	63-22702	C		LIMITER EMITTER SCHEM	V	01-25661	8	203100
D	01-25669	A		INPUT EMITTER FOLLOWER	V	01-22781	7	203400
A	LM 01-25669	A		INPUT EMITTER FOLLOWER	V	01-25667	8	203410
C	43-25670	A		INSULATOR #1 INPUT	V	01-25669	8	203420
C	43-25671	A		INSL #2 INPUT EMITTER	V	01-25669	8	203430
C	63-25668	A		INPUT EMITTER FOLLOWER	V	01-25669	8	203500
D	01-25673	A		-3.9 V PLUS 18 V PWR	V	01-22781	7	203800
A	LM 01-25673	A		-3.9V PLUS 18V PWR MODUL	V	01-25673	8	203810
A	WS 01-25673	A		-3.9VPLUS 18 POWER MOD	V	01-25673	8	203820
C	43-25674	A		INSL #1 -3.9 V PLUS 18V	V	01-25673	8	203830
C	43-25675	A	A	INSL #2 -3.9V PLUS 18V	V	01-25673	8	203840
C	63-25672	A		-3.9V PLUS 18V PWR SCHEM	V	01-25673	8	203900
	07-22819	D		BRACKET CONN-SHORTING	O	01-22781	7	204400
D	15-22780	D	A	HOUSING SUBCHASSIS DET	V	01-22781	7	204500
	23-14174		B	CAPACITOR FIXED TANTALUM	V	01-22781	7	204800
A	23-21953	D	E	CAPACITOR FIXED TANTALUM	V	01-22781	7	204900
	31-25657	A		LIMITER	O	01-22781	7	205700
	48-22145			DIODE FA4049	O	01-22781	7	205900
	48-23589			TRANSISTOR PNP 2N1917	V	01-22781	7	206100

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 61 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
	55-22820			KEY SHORTING	O	01-22781	7	206700
	55-22820	D		KEY SHORTING	O	01-22781	7	206800
J	69-28604	A	A	COMMAND DET LOGIC DIAG	V	01-22781	7	207000
C	03-22826	D		SCREW SANDWICH FASTENER	V	4600501	6	207002
D	06-15021		B	RESISTOR FIXED COMP	V	4600501	6	207004
A	06-20009		A	RESISTOR FIXED COMP	V	4600501	6	207006
A	06-20010			RESISTOR FIX COMPOSITION	V	4600501	6	207008
A	06-20011			RESISTOR FIXED FILM	V	4600501	6	207010
A	10-14144		A	SOLDER TIN ALLOY	V	4600501	6	207012
A	11-23710	C	A	ADHESIVE PRESSURE	V	4600501	6	207014
A	12-14113	A	B	INSULATING COMPOUND	V	4600501	6	207016
A	12-14140	A		SPEC REACTORS AUDIO/PWR	V	4600501	6	207018
A	12-22618	C	B	PROCEDURE SPECIFICATION	V	4600501	6	207020
A	12-22822	D	A	PROCEDE ADHESIVE COATING	V	4600501	6	207022
A	12-22823	C	A	MODULE SHORTENED TITLES	V	4600501	6	207024
F	15-22151	D		HOUSING SUBCHASSIS	V	4600501	6	207026
A	21-14172			CAPACITORS FIXED GLASS	V	4600501	6	207028
A	21-15144	A		CAPACITOR FIXED CERAMIC	V	4600501	6	207030
C	22-23153	C	B	PIN CONTACT	V	4600501	6	207032
A	25-22605	C	B	TRANSFORMER A F	V	4600501	6	207034
A	25-22606	C		TRANSFORMER A F	V	4600501	6	207036
A	25-23441	C	B	TRANSFORMER PULSE	V	4600501	6	207038
A	25-23442	C	C	TRANSFORMER PULSE	V	4600501	6	207040
A	25-23448	C		XFMR POWER STEP-DOWN	V	4600501	6	207042
A	25-23449	C		REACTOR POWER	V	4600501	6	207044
A	25-23511	C		FILTER BANDPASS	V	4600501	6	207046
C	29-22834	D		TERMINAL GOLD PLATED	V	4600501	6	207048
A	30-14029		D	WIRE ELECT INSULATED	V	4600501	6	207050
B	43-22817	D		SPACER SANDWICH	V	4600501	6	207052
A	48-21949	D	A	TSTR HIGH SPEED MEDIUM	V	4600501	6	207054
A	48-22608	C		TSTR SILICON PNP	V	4600501	6	207056
A	48-22608	C		TSTR SILICON PNP	V	4600501	6	207058
A	48-23591	C	D	TRANSISTOR SILICON PN	V	4600501	6	207060
A	48-23595	C		SEMICONDUCTOR DEVICE	V	4600501	6	207062
A	48-29551	A	B	TRANSISTOR SILICON	V	4600501	6	207064
A	48-29554	A	A	SEMICONDUCTOR DEVICE	V	4600501	6	207066
A	48-29580	A		SEMICONDUCTOR DEVICE	V	4600501	6	207068
C	62-22821	D		MOD CONFIGURATION SPEC	V	4600501	6	207070
C	81-22824	D		MOLD WIRE ENCAPSULATION	V	4600501	6	207072
D	4600502	CD	A	COMMAND DETECTOR 2 3A2	LX	4600519	5	207100

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 62 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	4600584		A	SUBCHASSIS ASSY COMMAND	L	4600502	6	207200
F	01-22783	D	B	DETECTOR 3A2	V	4600502	6	207300
	01-22607			OSCILLATOR AF V-CONTROL	O	01-22783	7	207400
F	01-22799	D	E	MOTHER BOARD ASSY 3A2	V	01-22783	7	207500
D	84-22797	D	B	PWB DETECTOR 3A2A1	V	01-22799	8	207600
B	01-22799	DLM	E	DETECTOR 3A2	V	01-22799	8	207700
C	43-25642	A	A	INSULATOR #1	V	01-22799	8	207710
C	43-25675	A	A	INSULATOR #2	V	01-22799	8	207720
J	69-28604	A	A	COMM DETECTOR LOGIC DGM	V	01-22799	8	207730
D	84-22798	D	C	PWB DETECTOR 3A2A2	V	01-22799	8	207800
D	01-22840	D	B	VOLTAGE CONT OSC MODULE	V	01-22783	7	207810
A WS	01-22840	D	A	VOLTAGE CONT OSCILLATOR	V	01-22840	8	207812
A LM	01-22840	D	B	VOLTAGE CONTROLLED OSC	V	01-22840	8	207814
C	43-22838	D		SPACER-INSL #1 VOLT CONT	V	01-22840	8	207816
C	43-22839	D		SPACER-INSL #2 VOLT CONT	V	01-22840	8	207818
D	63-22841	D	A	VOLTAGE CONT OSCILLATOR	V	01-22840	8	207820
D	01-25581	A		LP SRT FLIP FLOP MODULE	V	01-27783	7	207900
A LM	01-25581	A		LP SRT FLIP FLOP MODULE	V	01-25581	8	207910
A WS	01-25581	A		LP SRT FLIP FLOP MODULE	V	01-25581	8	207920
C	43-25582	A		INSL #1 LP SRT FLIP FLOP	V	01-25581	8	207930
C	43-25583	A		INSL #2 LP SRT FLIP FLOP	V	01-25581	8	207940
C	63-25580	A		LP SRT FLIP FLOP SCHEM	V	01-25581	8	208000
D	01-25589	A		LP DUAL 3 & INVERT MOD	V	01-22783	7	208300
A LM	01-25589	A		LP DUAL 3 & INVERT MOD	V	01-25589	8	208310
A WS	01-25589	A		LP DUAL 3 AND INVERT MOD	V	01-25589	8	208320
C	43-25590	A		INSL #1 LP DUAL 3	V	01-25589	8	208330
C	43-25591	A	A	INSL #2 LP DUAL 3	V	01-25589	8	208340
C	63-25588	A		LP DUAL 3 & INV SCHEM	V	01-25589	8	208400
D	01-25617	A		HV PHASE DET MODULE	V	01-22783	7	208700
A LM	01-25617	A		HV PHASE DETECTOR	V	01-25617	8	208710
A WS	01-25617	A		HV PHASE DET MODULE	V	01-25617	8	208712
C	43-25618	A		INSULATOR #1 HV PHASE	V	01-25617	8	208714
C	43-25619	A		INSULATOR #2	V	01-25617	8	208716
C	63-22647	C		HIGH VOLT PH DET SCHEM	V	01-25617	8	208800
D	01-25621	A		PHASE DET DR MODULE	V	01-22783	7	209100
A LM	01-25621	A		PHASE DET DR MODULE	V	01-25621	8	209110
A WS	01-25621	A		PHASE DETECTOR MODULE	V	01-25621	8	209120
C	43-25622	A		INSL #1 PHASE DET DRIVER	V	01-25621	8	209130
C	43-25623	A		INSL #2 PHASE DET DRIVER	V	01-25621	8	209140
C	63-25620	A		PHASE DET DR SCHEMATIC	V	01-25621	8	209200

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 63 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	01-25637	A		9 INPUT DET & INVERT MOD	V	01-22783	7	209500
A	LM 01-25637	A		9 INPUT DET & INVERT MOD	V	01-25637	8	209510
A	WS 01-25637	A		9 INPUT DET & INVERT MOD	V	01-25637	8	209520
C	43-25638	A		INSL #1 DET 9 INPUT	V	01-25637	8	209530
C	43-25639	A		INSL #2 DET 9 INPUT	V	01-25637	8	209540
C	63-22686	C		9 INPUT DET INVERT SCHEM	V	01-25637	8	209600
D	01-25641	A		DET DUAL 3 INPUT & INV	V	01-22783	7	209900
A	LM 01-25641	A		DET DUAL 3 & INVERT MOD	V	01-25641	8	209910
A	WS 01-25641	A		DET DUAL 3 AND INVERT	V	01-25641	8	209920
C	43-25643	A		INSL #2 DET DUAL 3 INPUT	V	01-25641	8	209930
C	63-25640	A		DET DUAL 3 INPUT &SCHEM	V	01-25641	8	210000
C	63-25664	A		DUAL & INVERT DR SCHEM	V	01-25665	8	210300
D	01-25681	A	C	LOOP FILTER MOD SPECIAL	V	01-22783	7	210600
A	LM 01-25681	A	C	LOOP FILTER MODULE	V	01-25681	8	210610
A	WS 01-25681	A	C	LOOP FILTER MODULE	V	01-25681	8	210620
C	43-25682	A		INSL #1 LOOP FILTER	V	01-25681	8	210630
C	43-25683	A		INSL #2 LOOP FILTER	V	01-25681	8	210640
C	63-25680	A	A	LOOP FILTER SCHEMATIC	V	01-25681	8	210700
D	01-25685	A		8 MS MONOSTABLE MODULE	V	01-22783	7	211000
A	LM 01-25685	A		8 MS MONOSTABLE MOD 25	V	01-25685	8	211010
A	WS 01-25685	A		8 MS MONOSTABLE MOD	V	01-25685	8	211020
C	43-25686	A		INSL #1 8MS MONOSTABLE	V	01-25685	8	211030
C	43-25687	A		INSL #2 8MS MONOSTABLE	V	01-25685	8	211040
C	63-25684	A		8MS MONOSTABLE SCHEMATIC	V	01-25685	8	211100
	07-22819	D		BRACKET CONN-SHORTING	O	01-22783	7	211600
D	15-22782	D	A	HOUSING SUBCHASS DETECTR	V	01-22783	7	211700
	23-14174		B	CAPACITOR FIXED TANTALUM	V	01-22783	7	212000
A	23-21953	D	E	CAPACITOR FIXED TANTALUM	V	01-22783	7	212100
	48-22145			DIODE FA4049	O	01-22783	7	213000
	48-23589			TRANSISTOR PNP 2N1917	V	01-22783	7	213200
	55-22820			KEY SHORTING	O	01-22783	7	213800
	55-22820	D		KEY SHORTING	O	01-22783	7	213900
J	69-28604	A	A	COMMAND DET LOGIC DGM	V	01-22783	7	214001
C	03-22826	D		SCREW SANDWICH FASTENER	V	4600502	6	214002
D	06-15021		B	RESISTOR FIXED COMP	V	4600502	6	214004
A	06-20009		A	RESISTOR FIXED COMP	V	4600502	6	214006
A	06-20010			RESISTOR FIX COMPOSITION	V	4600502	6	214008
A	06-20011			RESISTOR FIXED FILM	V	4600502	6	214010
A	10-14144		A	SOLDER TIN ALLOY	V	4600502	6	214012
A	11-23710	C	A	ADHESIVE PRESSURE	V	4600502	6	214014

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 64 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	12-14113	A	B	INSULATING COMPOUND	V	4600502	6	214016
A	12-14140	A		SPEC REACTORS AUDIO/PWR	V	4600502	6	214018
A	12-22618	C	B	PROCEDURE SPECIFICATION	V	4600502	6	214020
A	12-22822	D	A	PROCEDE ADHESIVE COATING	V	4600502	6	214022
A	12-22823	C	A	MODULE SHORTENED TITLES	V	4600502	6	214024
F	15-22151	D		HOUSING SUBCHASSIS	V	4600502	6	214026
A	21-14172			CAPACITORS FIXED GLASS	V	4600502	6	214028
A	21-15144	A		CAPACITOR FIXED CERAMIC	V	4600502	6	214030
C	22-23153	C	B	PIN CONTACT	V	4600502	6	214032
A	25-22605	C	B	TRANSFORMER A F	V	4600502	6	214034
A	25-22606	C		TRANSFORMER A F	V	4600502	6	214036
A	25-23441	C	B	TRANSFORMER PULSE	V	4600502	6	214038
A	25-23442	C	C	TRANSFORMER PULSE	V	4600502	6	214040
A	25-23448	C		XFMR POWER STEP-DOWN	V	4600502	6	214042
A	25-23449	C		REACTOR POWER	V	4600502	6	214044
A	25-23511	C		FILTER BANDPASS	V	4600502	6	214046
C	29-22834	D		TERMINAL GOLD PLATED	V	4600502	6	214048
A	30-14029		D	WIRE ELECT-INSULATED	V	4600502	6	214050
B	43-22817	D		SPACER SANDWICH	V	4600502	6	214052
A	48-21949	C	A	TSTR HIGH SPEED MEDIUM	V	4600502	6	214054
A	48-22608	C		TSTR SILICON PNP	V	4600502	6	214056
A	48-22608	C		TSTR SILICON PNP	V	4600502	6	214058
A	48-23591	C	D	TRANSISTOR SILICON PN	V	4600502	6	214060
A	48-23595	C		SEMICONDUCTOR DEVICE	V	4600502	6	214062
A	48-29551	A	B	TRANSISTOR SILICON	V	4600502	6	214064
A	48-29554	A	A	SEMICONDUCTOR DEVICE	V	4600502	6	214066
A	48-29580	A		SEMICONDUCTOR DEVICE	V	4600502	6	214068
C	62-22821	D		MOD CONFIGURATION SPEC	V	4600502	6	214070
C	81-22824	D		MOLD WIRE ENCAPSULATION	V	4600502	6	214072
D	4600503	CD	A	COMMAND DETECTOR 3 3A3	LX	4600519	5	214100
J	4600584		A	SUBCHASSIS ASSY COMMAND	L	4600503	6	214200
F	01-22785	D	B	DETECTOR 3A3	V	4600503	6	214300
	01-22607			OSCILLATOR AF V-CONTROL	O	01-22785	7	214400
F	01-22802	D	D	MOTHER BOARD ASSY 3A3	V	01-22785	7	214500
B	01-22802	DLM	D	DETECTOR 3A3 ASSY	V	01-22802	8	214600
D	84-22800	D	B	PWC DETECTOR 3A3A1	V	01-22802	8	214700
D	84-22801	D	B	PWB DETECTOR 3A3A2	V	01-22802	8	214800
D	01-25581	A		LP SRT FLIP FLOP MODULE	V	01-22785	7	214900
A	LM 01-25581	A		LP SRT FLIP FLOP MODULE	V	01-25581	8	214910
A	WS 01-25581	A		LP SRT FLIP FLOP MODULE	V	01-25581	8	214920

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 65 — DATE LISTED 08/27/65

SIZE		DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C		43-25582	A		INSL #1 LP SRT FLIP FLOP	V	01-25581	8	214930
C		43-25583	A		INSL #2 LP SRT FLIP FLOP	V	01-25581	8	214940
C		63-25580	A		LP SRT FLIP FLOP SCHEM	V	01-25581	8	215000
D		01-25589	A		LP DUAL B & INVERT MOD	V	01-22785	7	215300
A	LM	01-25589	A		LP DUAL B & INVERT MOD	V	01-25589	8	215310
A	WS	01-25589	A		LP DUAL B AND INVERT MOD	V	01-25589	8	215320
C		43-25590	A		INSL #1 LP DUAL 3	V	01-25589	8	215330
C		43-25591	A	A	INSL #2 LP DUAL 3	V	01-25589	8	215340
D		01-25605	A		DUAL INVERTER MODULE	V	01-22785	7	215700
A	LM	01-25605	A		DUAL INVERTER MODULE	V	01-25605	8	215710
A	WS	01-25605	A		DUAL INVERTER MODULE	V	01-25605	8	215720
C		43-25606	A		INSL #1 DUAL INVERTER	V	01-25605	8	215730
C		43-25607	A		INSL #2 DUAL INVERTER	V	01-25605	8	215740
D		01-25609	A		DUAL DUMP MODULE SPECIAL	V	01-22785	7	216100
A	LM	01-25609	A		DUAL DUMP MOD SPECIAL	V	01-25609	8	216110
A	WS	01-25609	A		DUAL DUMP MOD SPECIAL	V	01-25609	8	216120
C		43-25610	A		INSL #1 DUAL DUMP	V	01-25609	8	216130
C		43-25611	A		INSL #2 DUAL DUMP	V	01-25609	8	216140
C		63-25608	A		DUAL DUMP SCHEM SPECIAL	V	01-25609	8	216200
D		01-25613	A		MATCHED FILTER AMPL MOD	V	01-22785	7	216500
A	LM	01-25613	A		MATCHED FILTER AMPL MOD	V	01-25613	8	216510
A	WS	01-25613	A		MATCHED FILTER AMPL MOD	V	01-25613	8	216520
C		43-25614	A		INSL #1 MATCHED FILTER	V	01-25613	8	216530
C		43-25615	A		INSL #2 MATCHED FILTER	V	01-25613	8	216540
C		63-25612	A		MATCH FILT AMPL SCHEM	V	01-25613	8	216600
D		01-25617	A		HV PHASE MODULE	V	01-22785	7	216900
A	LM	01-25617	A		HV PHASE DETECTOR	V	01-25617	8	216910
A	WS	01-25617	A		HV PHASE DET MOD	V	01-25617	8	216920
C		43-25618	A		INSULATOR #1 HV PHASE	V	01-25617	8	216930
C		43-25619	A		INSULATOR #2 HV PHASE	V	01-25617	8	216940
C		63-22647	C		HIGH VOLT PH DET SCHEM	V	01-25617	8	217000
D		01-25621	A		PHASE DET DR MODULE	V	01-22785	7	217300
A	LM	01-25621	A		PHASE DET DR MODULE	V	01-25621	8	217310
A	WS	01-25621	A		PHASE DETECTOR MODULE	V	01-25621	8	217320
C		43-25622	A		INSL #1 PHASE DET DRIVER	V	01-25621	8	217330
C		43-25623	A		INSL #2 PHASE DET DRIVER	V	01-25621	8	217340
C		63-25620	A		PHASE DET DR SCHEMATIC	V	01-25621	8	217400
D		01-25629	A		LV PHASE DET MODULE	V	01-22785	7	217700
A	LM	01-25629	A		LV PHASE DETECTOR	V	01-25629	8	217710
A	WS	01-25629	A		LV PHASE DETECTOR MOD	V	01-25629	8	217720

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 66 — DATE LISTED 08/27/65

SIZE		DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C		43-25630	A		INSL #1 LV PHASE DET	V	01-25629	8	217730
C		43-25631	A		INSL #2 LV PHASE DET	V	01-25629	8	217740
C		63-25628	A		LOW VOLT PHASE DET SCHEM	V	01-25629	8	217800
D		01-25633	A		LP DRIVER/& INVERT GATE	V	01-22785	7	218100
A	LM	01-25633	A		LP DRIVER/AND INVERT	V	01-25633	8	218110
A	WS	01-25633	A		LP DRIVER/AND INVERT	V	01-25633	8	218120
C		43-25634	A		INSL #1 LP DR/& INVER	V	01-25633	8	218130
C		43-25635	A		INSL #2 LP DRIVER/& INV	V	01-25633	8	218140
C		63-25632	A		LP DRIVER/& INVERT SCHEM	V	01-25633	8	218200
D		01-25677	A		DUMP DRIVER MODULE	V	01-22785	7	218500
A	LM	01-25677	A		DUMP DRIVER MOD SPECIAL	V	01-25677	8	218510
A	WS	01-25677	A		DUMP DRIVER MOD SPECIAL	V	01-25677	8	218520
C		43-25678	A		INSL #1 DUMP DRIVER	V	01-25677	8	218530
C		43-25679	A		INSL #2 DUMP DRIVER	V	01-25677	8	218540
C		63-25676	A		DUMP DR SCHEMATIC	V	01-25677	8	218600
D		01-25689	A		DET INTEGRATOR MODULE	V	01-22785	7	218900
A	LM	01-25689	A		DETECTOR INTEGRATOR MOD	V	01-25689	8	218910
A	WS	01-25689	A		DET INTEGRATOR MOD	V	01-25689	8	218920
C		43-25690	A		INSL #1 DET INTEGRATOR	V	01-25689	8	218930
C		43-25691	A		INSL #2 DET INTEGRATOR	V	01-25689	8	218940
C		63-25688	A		DET INTEGRATOR SCHEM	V	01-25689	8	219000
		07-22819	D		BRACKET CONN-SHORTING	O	01-22785	7	219500
D		15-22784	D	A	HOUSING BA3	V	01-22785	7	219600
		23-14174		B	CAPACITOR FIXED TANTALUM	V	01-22785	7	219900
A		23-21953	D	E	CAPACITOR FIXED TANTALUM	V	01-22785	7	220000
		48-22145			DIODE FA4049	O	01-22785	7	220900
		48-23589			TRANSISTOR PNP 2N1917	V	01-22785	7	221100
		55-22820			KEY SHORTING	O	01-22785	7	221700
		55-22820	D		KEY SHORTING	O	01-22785	7	221800
J		69-28604	A	A	COMMAND DET LOGIC DGM	V	01-22785	7	222000
C		03-22826	C		SCREW SANDWICH FASTENER	V	4600503	6	222002
D		06-19024		D	RESISTOR FIXED COMP	V	4600503	6	222004
A		06-20009		A	RESISTOR FIXED COMP	V	4600503	6	222006
A		06-20010			RESISTOR FIX COMPOSITION	V	4600503	6	222008
A		06-20011			RESISTOR FIXED FILM	V	4600503	6	222010
A		10-14144		A	SOLDER TIN ALLOY	V	4600503	6	222012
A		11-23710	C	A	ADHESIVE PRESSURE	V	4600503	6	222014
A		12-14113	A	B	INSULATING COMPOUND	V	4600503	6	222016
A		12-14140	A		SPEC REACTORS AUDIO/PWR	V	4600503	6	222018
A		12-22618	C	B	PROCEDURE SPECIFICATION	V	4600503	6	222020

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 67 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	12-22822	D	A	PROCEDE ADHESIVE COATING	V	4600503	6	222022
A	12-22823	D	A	MODULE SHORTENED TITLES	V	4600503	6	222024
F	15-22151	D		HOUSING SUBCHASSIS	V	4600503	6	222026
A	21-14172			CAPACITORS FIXED GLASS	V	4600503	6	222028
A	21-15144	A		CAPACITOR FIXED CERAMIC	V	4600503	6	222030
C	22-23153	C	B	PIN CONTACT	V	4600503	6	222032
A	25-22605	C	B	TRANSFORMER A F	V	4600503	6	222034
A	25-22606	C		TRANSFORMER A F	V	4600503	6	222036
A	25-23441	C	B	TRANSFORMER PULSE	V	4600503	6	222038
A	25-23442	C	C	TRANSFORMER PULSE	V	4600503	6	222040
A	25-23448	C		XFMR POWER STEP-DOWN	V	4600503	6	222042
A	25-23449	C		REACTOR POWER	V	4600503	6	222044
A	25-23511	C		FILTER BANDPASS	V	4600503	6	222046
C	29-22834	D		TERMINAL GOLD PLATED	V	4600503	6	222048
A	30-14029		D	WIRE ELECT-INSULATED	V	4600503	6	222050
B	43-22817	D		SPACER SANDWICH	V	4600503	6	222052
A	48-21949	D	A	TSTR HIGH SPEED MEDIUM	V	4600503	6	222054
A	48-22608	C		TSTR SILICON PNP	V	4600503	6	222056
A	48-22608	C		TSTR SILICON PNP	V	4600503	6	222058
A	48-23591	C	D	TRANSISTOR SILICON PN	V	4600503	6	222060
A	48-23595	C		SEMICONDUCTOR DEVICE	V	4600503	6	222062
A	48-29551	A	B	TRANSISTOR SILICON	V	4600503	6	222064
A	48-29554	A	A	SEMICONDUCTOR DEVICE	V	4600503	6	222066
A	48-29580	A		SEMICONDUCTOR DEVICE	V	4600503	6	222068
C	62-22821	D		MOD CONFIGURATION SPEC	V	4600503	6	222070
C	81-22824	D		MOLD WIRE ENCAPSULATION	V	4600503	6	222072
D	4600504	CD	A	COMMAND PROGRAM CONT 3A4	LX	4600519	5	222100
J	4600584		A	SUBCHASSIS ASSY COMMAND	L	4600504	6	222200
F	01-22787	D	B	PROGRAM CONTROL 3A4	V	4600504	6	222300
	01-22607			OSCILLATOR AF V CONTROL	O	01-22787	7	222400
F	01-22805	D	E	MOTHER BOARD ASSY 3A4	V	01-22787	7	222500
B	01-22805	DLM	E	PROGRAM CONTROL 3A4 ASSY	V	01-22805	8	222600
D	84-22803	D	B	PWB PROGRAM CONT 3A4A1	V	01-22805	8	222700
D	84-22804	D	B	PWB PROGRAM CONT 3A4A2	V	01-22805	8	222800
D	01-25581	A		LP SRT FLIP FLOP MODULE	V	01-22787	7	222900
A LM	01-25581	A		LP SRT FLIP FLOP MODULE	V	01-25581	8	222910
A WS	01-25581	A		LP SRT FLIP FLOP MODULE	V	01-25581	8	222920
C	43-25582	A		INSL #1 LP SRT FLIP FLOP	V	01-25581	8	222930
C	43-25583	A		INSL #2 LP SRT FLIP FLOP	V	01-25581	8	222940
C	63-25580	A		LP SRT FLIP FLOP SCHEM	V	01-25581	8	223000

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 68 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	01-25589	A		LP DUAL β & INVERT MOD	V	01-22787	7	223300
A LM	01-25589	A		LP DUAL β & INVERT MOD	V	01-25589	8	223310
A WS	01-25589	A		LP DUAL β AND INVERT MOD	V	01-25589	8	223320
C	43-25590	A		INSL #1 LP DUAL 3	V	01-25589	8	223330
C	43-25591	A	A	INSL #2 LP DUAL 3	V	01-25589	8	223340
C	63-25588	A		LP DUAL β & INV SCHEM	V	01-25589	8	223400
D	01-25633	A		LP DRIVER/& INVERT GATE	V	01-22787	7	223700
A LM	01-25633	A		LP DRIVER/AND INVERT	V	01-25633	8	223710
A WS	01-25633	A		LP DRIVER/AND INVERT	V	01-25633	8	223720
C	63-25632	A		LP DRIVER/& INVERT SCHEM	V	01-25633	8	223800
	84-25634	A		PCB 1 LP DR & INV GATE	O	01-25633	8	223900
D	01-25645	A		LOW POWER 8 INPUT GATE	V	01-22787	7	224100
A LM	01-25645	A		LOW PWR 8 INPUT	V	01-25645	8	224110
A WS	01-25645	A		LOW PWR 8 INPUT GATE MOD	V	01-25645	8	224120
C	43-25646	A		INSL #1 LOW PWR 8 INPUT	V	01-25645	8	224130
C	43-25647	A		INSL #2 LOW PWR 8 INPUT	V	01-25645	8	224140
C	63-22690	C		LOW PWR 8 INPUT SCHEM	V	01-25645	8	224200
D	01-25649	A	A	IP SWITCH DUAL MODULE	V	01-22787	7	224410
C	43-25650	A		INSL #1 IP SWITCH	V	01-25649	8	224420
C	43-25651	A		INSL #2 IP SWITCH	V	01-25649	8	224430
C	43-25666	A		INSL #1 DUAL & INVERT	V	01-25665	8	224530
C	43-25667	A		INSL #2 DUAL & INVERT	V	01-25665	8	224540
C	63-25664	A		DUAL & INVERT DR SCHEM	V	01-25665	8	224600
	07-22819	D		BRACKET CONN-SHORTING	O	01-22787	7	225100
D	15-22786	D	A	HOUSING 3A4	V	01-22787	7	225200
	23-14174		B	CAPACITOR FIXED TANTALUM	V	01-22787	7	225500
A	23-21953	D	E	CAPACITOR FIXED TANTALUM	V	01-22787	7	225600
	48-22145			DIODE FA4049	O	01-22787	7	226500
	48-23589			TRANSISTOR PNP 2N1917	V	01-22787	7	226700
	55-22820			KEY SHORTING	O	01-22787	7	227300
	55-22820	D		KEY SHORTING	O	01-22787	7	227400
J	69-28601	A		COMMAND DECODER PROGRAM	V	01-22787	7	227600
C	03-22826	C		SCREW SANDWICH FASTENER	V	4600504	6	227602
D	06-15021		B	RESISTOR FIXED COMP	V	4600504	6	227604
A	06-20009		A	RESISTOR FIXED COMP	V	4600504	6	227606
A	06-20010			RESISTOR FIX COMPOSITION	V	4600504	6	227608
A	06-20011			RESISTOR FIXED FILM	V	4600504	6	227610
A	10-14144		A	SOLDER TIN ALLOY	V	4600504	6	227612
A	11-23710	C	A	ADHESIVE PRESSURE	V	4600504	6	227614
A	12-14113	A	B	INSULATING COMPOUND	V	4600504	6	227616

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 69 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	12-14140	A		SPEC REACTORS AUDIO/PWR	V	4600504	6	227618
A	12-22618	C	B	PROCEDURE SPECIFICATION	V	4600504	6	227620
A	12-22822	D	A	PROCEDE ADHESIVE COATING	V	4600504	6	227622
F	15-22151	D		HOUSING SUBCHASSIS	V	4600504	6	227626
A	21-14172			CAPACITORS FIXED GLASS	V	4600504	6	227628
A	21-15144	A		CAPACITOR FIXED CERAMIC	V	4600504	6	227630
C	22-23153	C	B	PIN CONTACT	V	4600504	6	227632
A	25-22605	C	B	TRANSFORMER A F	V	4600504	6	227634
A	25-22606	C		TRANSFORMER A F	V	4600504	6	227636
A	25-23441	C	B	TRANSFORMER PULSE	V	4600504	6	227638
A	25-23442	C	C	TRANSFORMER PULSE	V	4600504	6	227640
A	25-23448	C		XFMR POWER STEP-DOWN	V	4600504	6	227642
A	25-23449	C		REACTOR POWER	V	4600504	6	227644
A	25-23511	C		FILTER BANDPASS	V	4600504	6	227646
C	29-22834	D		TERMINAL GOLD PLATED	V	4600504	6	227648
A	30-14029		D	WIRE ELECT-INSULATED	V	4600504	6	227650
B	43-22817	D		SPACER SANDWICH	V	4600504	6	227652
A	48-21949	D	A	TSTR HIGH SPEED MEDIUM	V	4600504	6	227654
A	48-22608	C		TSTR SILICON PNP	V	4600504	6	227656
A	48-22608	C		TSTR SILICON PNP	V	4600504	6	227658
A	48-23591	C	D	TRANSISTOR SILICON PN	V	4600504	6	227660
A	48-23595	C		SEMICONDUCTOR DEVICE	V	4600504	6	227662
A	48-29551	A	B	TRANSISTOR SILICON	V	4600504	6	227664
A	48-29554	A	A	SEMICONDUCTOR DEVICE	V	4600504	6	227666
A	48-29580	A		SEMICONDUCTOR DEVICE	V	4600504	6	227668
C	62-22821	D		MOD CONFIGURATION SPEC	V	4600504	6	227670
C	81-22824	D		MOLD WIRE ENCAPSULATION	V	4600504	6	227672
D	4600505	CD	A	COMMAND DECODER 1 3A5	LX	4600519	5	227700
J	4600584		A	SUBCHASSIS ASSY COMMAND	L	4600505	6	227800
F	01-22789	D	B	DECODER 3A5	V	4600505	6	227900
D	01-25665	A		DUAL & INVERT DR MOD	V	01-22783	7	228000
A	LM 01-25665	A		DUAL & INVERT DR MOD	V	01-25665	8	228010
A	WS 01-25665	A		DUAL & INVERT DR MODULE	V	01-25665	8	228020
C	43-25666	A		INSL #1 DUAL & INVERT	V	01-25665	8	228030
C	43-25667	A		INSL #2 DUAL & INVERT	V	01-25665	8	228040
	01-22607			OSCILLATOR AF V-CONTROL	O	01-22789	7	228100
F	01-22808	D	E	MOTHER BD ASSY 3A5	V	01-22789	7	228200
B	01-22808	DLM	E	DECODER 3A5 ASSY	V	01-22808	8	228300
D	84-22806	D	A	PWB DECODER 3A5A1	V	01-22808	8	228400
D	84-22807	D	B	PWB DECODER 3A5A2	V	01-22808	8	228500

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 70 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	01-25601	A		IS SWITCH MODULE 25 KC	V	01-22789	7	228600
A	WS 01-25601	A		IS SWITCH MODULE	V	01-25601	8	228610
A	LM 01-25601	A		IS SWITCH MOD 25 KC	V	01-25601	8	228620
C	43-25602	A		INSULATOR #1 IS SWITCH	V	01-25601	8	228630
C	43-25603	A		INSULATOR #2 IS SWITCH	V	01-25601	8	228640
C	63-25600	A		IS SWITCH SCHEMATIC	V	01-25601	8	228700
D	01-25645	A		LOW POWER 8 INPUT GATE	V	01-22789	7	229000
A	LM 01-25645	A		LOW PWR 8 INPUT	V	01-25645	8	229010
A	WS 01-25645			LOW PWR 8 INPUT GATE MOD	V	01-25645	8	229020
C	43-25646			INSL #1 LOW PWR 8 INPUT	V	01-25645	8	229030
C	43-25647			INSL #2 LOW PWR 8 INPUT	V	01-25645	8	229040
C	63-22690	C		LOW PWR 8 INPUT SCHEM	V	01-25645	8	229100
D	01-25649	A	A	IP SWITCH DUAL MODULE	V	01-22789	7	229400
C	43-25650	A		INSL #1 IP SWITCH	V	01-25649	8	229430
C	43-25651	A		INSL #2 IP SWITCH	V	01-25649	8	229440
C	63-25648	A		IP SWITCH SCHEMATIC	V	01-25649	8	229500
D	01-25697	A		HP 8 INPUT & INVERT MOD	V	01-22789	7	229800
A	WS 01-25697	A		HP 8 INPUT & INVERT MOD	V	01-25697	8	229810
A	LM 01-25697	A		HP 8 INPUT & INVERT MOD	V	01-25697	8	229820
C	43-25698	A		INSULATOR #1 HP 8 INPUT	V	01-25697	8	229830
C	43-25699	A		INSL #2 HP 8 INPUT &	V	01-25697	8	229840
C	63-28592	A		H P 8 INPUT SCHEMATIC	V	01-25697	8	229900
	07-22819	C		BRACKET CONN-SHORTING	O	01-22789	7	230400
D	15-22788	D	A	HOUSING 3A5	V	01-22789	7	230500
	23-14174		B	CAPACITOR FIXED TANTALUM	V	01-22789	7	230800
A	23-21953	D	E	CAPACITOR FIXED TANTALUM	V	01-22789	7	230900
A	25-22606	C		TRANSFORMER A F	V	4600505	6	231100
	48-22145			DIODE FA4049	O	01-22789	7	231800
	48-23589			TRANSISTOR PNP 2N1917	V	01-22789	7	232000
	55-22820			KEY SHORTING	O	01-22789	7	232600
	55-22820	D		KEY SHORTING	O	01-22789	7	232700
J	69-28602	A		COMMAND DECODER LOGIC	V	01-22789	7	232900
C	03-22826	D		SCREW SANDWICH FASTENER	V	4600505	6	232902
D	06-15021		B	RESISTOR FIXED COMP	V	4600505	6	232904
A	06-20009		A	RESISTOR FIXED COMP	V	4600505	6	232906
A	06-20010			RESISTOR FIX COMPOSITION	V	4600505	6	232908
A	06-20011			RESISTOR FIXED FILM	V	4600505	6	232910
A	10-14144		A	SOLDER TIN ALLOY	V	4600505	6	232912
A	11-23710	C	A	ADHESIVE PRESSURE	V	4600505	6	232914
A	12-14113	A	B	INSULATING COMPOUND	V	4600505	6	232916

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 71 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	12-14140	A		SPEC REACTORS AUDIO/PWR	V	4600505	6	232918
A	12-22618	C	B	PROCEDURE SPECIFICATION	V	4600505	6	232920
A	12-22822	D	A	PROCEDE ADHESIVE COATING	V	4600505	6	232922
A	12-22823	D	A	MODULE SHORTENED TITLES	V	4600505	6	232924
F	15-22151	D		HOUSING SUBCHASSIS	V	4600505	6	232926
A	21-14172			CAPACITORS FIXED GLASS	V	4600505	6	232928
A	21-15144	A		CAPACITOR FIXED CERAMIC	V	4600505	6	232930
C	22-23153	C	B	PIN CONTACT	V	4600505	6	232932
A	25-22605	C	B	TRANSFORMER A F	V	4600505	6	232934
A	25-23441	C	B	TRANSFORMER PULSE	V	4600505	6	232938
A	25-23442	C	C	TRANSFORMER PULSE	V	4600505	6	232940
A	25-23448	C		XFMR POWER STEP-DOWN	V	4600505	6	232942
A	25-23449	C		REACTOR POWER	V	4600505	6	232944
A	25-23511	C		FILTER BANDPASS	V	4600505	6	232946
C	29-22834	D		TERMINAL GOLD PLATED	V	4600505	6	232948
A	30-14029		D	WIRE ELECT-INSULATED	V	4600505	6	232950
B	43-22817	C		SPACER SANDWICH	V	4600505	6	232952
A	48-21949	D	A	TSTR HIGH SPEED MEDIUM	V	4600505	6	232954
A	48-22608	C		TSTR SILICON PNP	V	4600505	6	232956
A	48-22608	C		TSTR SILICON PNP	V	4600505	6	232958
A	48-23591	C	D	TRANSISTOR SILICON PN	V	4600505	6	232960
A	48-23595	C		SEMICONDUCTOR DEVICE	V	4600505	6	232962
A	48-29551	A	B	TRANSISTOR SILICON	V	4600505	6	232964
A	48-29554	A	A	SEMICONDUCTOR DEVICE	V	4600505	6	232966
A	48-29580	A		SEMICONDUCTOR DEVICE	V	4600505	6	232968
C	62-22821	C		MOD CONFIGURATION SPEC	V	4600505	6	232970
C	81-22824	C		MOLD WIRE ENCAPSULATION	V	4600505	6	232972
D	4600506	CD	A	COMMAND DECODER 2 3A6	LX	4600519	5	233000
J	4600584		A	SUBCHASSIS ASSY COMMAND	L	4600506	6	233100
F	01-22791	D	B	DECODER 3A6	V	4600506	6	233200
F	01-22811	D	E	MOTHER BOARD ASSY 3A6	V	01-22791	7	233400
B	01-22811	ALM	E	DECODER 3A6 ASSY	V	01-22811	8	233500
D	84-22809	D	A	PWB DECODER 3A6A1	V	01-22811	8	233600
D	84-22810	D	B	PWB DECODER 3A6A2	V	01-22811	8	233700
A	06-20009		A	RESISTOR FIXED COMP	V	4600507	6	233706
D	01-25649	A	A	IP SWITCH DUAL MODULE	V	01-22791	7	233710
D	01-25601	A		IS SWITCH MODULE 25KC	V	01-22791	7	233800
A LM	01-25601	A		IS SWITCH MOD 25 KC	V	01-25601	8	233810
A WS	01-25601	A		IS SWITCH MODULE	V	01-25601	8	233820
C	43-25602	A		INSULATOR #1 IS SWITCH	V	01-25601	8	233830

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 72 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	43-25603	A		INSULATOR #2 IS SWITCH	V	01-25601	8	233840
C	43-25603	A		INSULATOR #2 IS SWITCH	V	01-25601	8	233940
D	01-25645	A		LOW POWER 8 INPUT GATE	V	01-22791	7	234200
A LM	01-25645	A		LOW PWR 8 INPUT	V	01-25645	8	234210
A WS	01-25645			LOW PWR 8 INPUT GATE MOD	V	01-25645	8	234220
C	43-25650	A		INSL #1 IP SWITCH	V	01-25649	8	234220
C	43-25646			INSL #1 LOW PWR 8 INPUT	V	01-25645	8	234230
C	43-25651	A		INSL #2 IP SWITCH	V	01-25649	8	234230
C	43-25647			INSL #2 LOW PWR 8 INPUT	V	01-25645	8	234240
C	63-22690	C		LOW PWR 8 INPUT SCHEM	V	01-25645	8	234300
D	15-22790	D	A	HOUSING 3A6	V	01-22791	7	234900
	48-23589			TRANSISTOR PNP 2N1917	V	01-22791	7	236400
J	69-28602	A		COMMAND DECODER LOGIC	V	01-22791	7	237300
C	03-22826	D		SCREW SANDWICH FASTENER	V	4600506	6	237302
D	06-15021		B	RESISTOR FIXED COMP	V	4600506	6	237304
A	06-20009		A	RESISTOR FIXED COMP	V	4600506	6	237306
A	06-20010			RESISTOR FIX COMPOSITION	V	4600506	6	237308
A	06-20011			RESISTOR FIXED FILM	V	4600506	6	237310
A	10-14144		A	SOLDER TIN ALLOY	V	4600506	6	237312
A	11-23710	C	A	ADHESIVE PRESSURE	V	4600506	6	237314
A	12-14113	A	B	INSULATING COMPOUND	V	4600506	6	237316
A	12-14140	A		SPEC REACTORS AUDIO/PWR	V	4600506	6	237318
A	12-22618	C	B	PROCEDURE SPECIFICATION	V	4600506	6	237320
A	12-22822	D	A	PROCEDE ADHESIVE COATING	V	4600506	6	237322
A	12-22823	D	A	MODULE SHORTENED TITLES	V	4600506	6	237324
F	15-22151	D		HOUSING SUBCHASSIS	V	4600506	6	237326
A	21-14172			CAPACITORS FIXED GLASS	V	4600506	6	237328
A	21-15144	A		CAPACITOR FIXED CERAMIC	V	4600506	6	237330
C	22-23153	C	B	PIN CONTACT	V	4600506	6	237332
A	25-22605	C	B	TRANSFORMER A F	V	4600506	6	237334
A	25-22606	C		TRANSFORMER A F	V	4600506	6	237336
A	25-23441	C	B	TRANSFORMER PULSE	V	4600506	6	237338
A	25-23442	C	C	TRANSFORMER PULSE	V	4600506	6	237340
A	25-23448	C		XFMR POWER STEP-DOWN	V	4600506	6	237342
A	25-23449	C		REACTOR POWER	V	4600506	6	237344
A	25-23511	C		FILTER BANDPASS	V	4600506	6	237346
C	29-22834	D		TERMINAL GOLD PLATED	V	4600506	6	237348
A	30-14029		D	WIRE ELECT-INSULATED	V	4600506	6	237350
B	43-22817	D		SPACER SANDWICH	V	4600506	6	237352
A	48-21949	D	A	TSTR HIGH SPEED MEDIUM	V	4600506	6	237354

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 73 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	48-22608	C		TSTR SILICON PNP	V	4600506	6	237356
A	48-22608	C		TSTR SILICON PNP	V	4600506	6	237358
A	48-23591	C	D	TRANSISTOR SILICON PN	V	4600506	6	237360
A	48-23595	C		SEMICONDUCTOR DEVICE	V	4600506	6	237362
A	48-29551	A	B	TRANSISTOR SILICON	V	4600506	6	237364
A	48-29554	A	A	SEMICONDUCTOR DEVICE	V	4600506	6	237366
A	48-29580	A		SEMICONDUCTOR DEVICE	V	4600506	6	237368
C	62-22821	D		MOD CONFIGURATION SPEC	V	4600506	6	237370
C	81-22824	D		MOLD WIRE ENCAPSULATION	V	4600506	6	237372
D	4600507	CD	A	COMMAND DECODER 3A7	LX	4600519	5	237400
J	4600584		A	SUBCHASSIS ASSY COMMAND	L	4600507	6	237500
F	01-22793	D	B	DECODER & PWR SUPPLY 3A7	V	4600507	6	237600
	01-22607			OSCILLATOR AF V-CONTROL	O	01-22793	7	237700
F	01-22814	D	E	MOTHER BOARD ASSY 3A7	V	01-22793	7	237800
B	01-22814	DLM	E	DECODER & PWR SUPPLY 3A7	V	01-22814	8	237900
D	84-22812	D	B	PWB DECODER & P/S 3A7A1	V	01-22814	8	238000
D	01-25581	A		LP SRT FLIP FLOP MODULE	V	01-22793	7	238100
A	LM 01-25581	A		LP SRT FLIP FLOP MODULE	V	01-25581	8	238110
A	WS 01-25581	A		LP SRT FLIP FLOP MODULE	V	01-25581	8	238120
C	43-25582	A		INSL #1 LP SRT FLIP FLOP	V	01-25581	8	238130
C	43-25583	A		INSL #2 LP SRT FLIP FLOP	V	01-25581	8	238140
C	63-25580	A		LP SRT FLIP FLOP SCHEM	V	01-25581	8	238200
D	01-25589	A		LP DUAL 3 & INVERT MOD	V	01-22793	7	238500
A	LM 01-25589	A		LP DUAL 3 & INVERT MOD	V	01-25589	8	238510
A	WS 01-25589	A		LP DUAL 3 AND INVERT MOD	V	01-25589	8	238520
C	43-25590	A		INSL #1 LP DUAL 3 &	V	01-25589	8	238530
C	43-25591	A	A	INSL #2 LP DUAL 3 &	V	01-25589	8	238540
C	63-25588	A		LP DUAL 3 & INV SCHEM	V	01-25589	8	238600
D	01-25601	A		IS SWITCH MODULE 25KC	V	01-22793	7	238900
A	LM 01-25601	A		IS SWITCH MOD 25 KC	V	01-25601	8	238910
A	WS 01-25601	A		IS SWITCH MODULE	V	01-25601	8	238920
C	43-25602	A		INSULATOR #1 IS SWITCH	V	01-25601	8	238930
C	63-25600	A		IS SWITCH SCHEMATIC	V	01-25601	8	239000
D	01-25645	A		LOW POWER 8 INPUT GATE	V	01-22793	7	239300
A	LM 01-25645	A		LOW PWR 8 INPUT	V	01-25645	8	239310
A	WS 01-25645			LOW PWR 8 INPUT GATE MOD	V	01-25645	8	239320
C	43-25646			INSL #1 LOW PWR 8 INPUT	V	01-25645	8	239330
C	43-25647			INSL #2 LOW PWR 8 INPUT	V	01-25645	8	239340
C	63-22690	C		LOW PWR 8 INPUT SCHEM	V	01-25645	8	239400
D	01-25649	A	A	IP SWITCH DUAL MODULE	V	01-22793	7	239700

JPL 2367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 74 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	43-25650	A		INSL #1 IP SWITCH	V	01-25649	8	239730
C	43-25651	A		INSL #2 IP SWITCH	V	01-25649	8	239740
C	63-25648	A		IP SWITCH SCHEMATIC	V	01-25649	8	239800
	01-25701	A		PLUS 6VDC RECT WELD MOD	O	01-22793	7	240100
A	LM 01-25701	A		PLUS 6 VD RECT MODULE	V	01-25701	8	240110
A	WS 01-25701	A		PLUS 6 VD RECT MODULE	V	01-25701	8	240120
C	43-25703	A		INSL #2 PLUS 6VDC RECT	V	01-25701	8	240130
C	43-25702	A		INSL #1 PLUS 6VDC RECT	V	01-25701	8	240140
C	63-25700	A		PLUS 6VDC RECT SCHEMATIC	V	01-25701	8	240200
D	01-25705	A		-6 VDC PLUS 28 VDC RECT	V	01-22793	7	240500
A	WS 01-25705	A		-6VDC PLUS 28VDC RECT	V	01-25705	8	240510
A	LM 01-25705	A		-6 VDC PLUS 28 VDC RECT	V	01-25705	8	240520
C	43-25706	A		INSL #1 -6VDC PLUS 28VDC	V	01-25705	8	240530
C	43-25707	A		INSL #2 -6VDC PLUS 28VDC	V	01-25705	8	240540
C	63-25704	A		RECTIFIER SCHEMATIC DIAG	V	01-25705	8	240600
	07-22819	D		BRACKET CONN-SHORTING	O	01-22793	7	241100
D	15-22792	D	A	HOUSING SUBCHASSIS DECOD	V	01-22793	7	241200
	23-14174		B	CAPACITOR FIXED TANTALUM	V	01-22793	7	241500
A	23-21953	D	E	CAPACITOR FIXED TANTALUM	V	01-22793	7	241600
	48-22145			DIODE FA4049	O	01-22793	7	242500
	48-23589			TRANSISTOR PNP 2N1917	V	01-22793	7	242700
	55-22820			KEY SHORTING	O	01-22793	7	243300
	55-22820	D		KEY SHORTING	O	01-22793	7	243400
J	69-28603	A		COMMAND CODER & XFMR	V	01-22793	7	243600
D	84-22813	D	B	PC BD 3A7A2	V	01-22793	8	243700
C	03-22826	D		SCREW SANDWICH FASTENER	V	4600507	6	243702
D	06-15021		B	RESISTOR FIXED COMP	V	4600507	6	243704
A	06-20010			RESISTOR FIX COMPOSITION	V	4600507	6	243708
A	06-20011			RESISTOR FIXED FILM	V	4600507	6	243710
A	10-14144		A	SOLDER TIN ALLOY	V	4600507	6	243712
A	11-23310	C	A	ADHESIVE PRESSURE	V	4600507	6	243714
A	12-14113	A	B	INSULATING COMPOUND	V	4600507	6	243716
A	12-14140	A		SPEC REACTORS AUDIO/PWR	V	4600507	6	243718
A	12-22618	C	B	PROCEDURE SPECIFICATION	V	4600507	6	243720
A	12-22822	D	A	PROCEDE ADHESIVE COATING	V	4600507	6	243722
A	12-22823	D	A	MODULE SHORTENED TITLES	V	4600507	6	243724
F	15-22151	D		HOUSING SUBCHASSIS	V	4600507	6	243726
A	21-14172			CAPACITORS FIXED GLASS	V	4600507	6	243728
A	21-15144	A		CAPACITOR FIXED CERAMIC	V	4600507	6	243730
C	22-23153	C	B	PIN CONTACT	V	4600507	6	243732

JPL 2367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 75 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	25-22605	C	B	TRANSFORMER A F	V	4600507	6	243734
A	25-22606	C		TRANSFORMER A F	V	4600507	6	243736
A	25-23441	C	B	TRANSFORMER PULSE	V	4600507	6	243738
A	25-23442	C	C	TRANSFORMER PULSE	V	4600507	6	243740
A	25-23448	C		XFMR POWER STEP-DOWN	V	4600507	6	243742
A	25-23449	C		REACTOR POWER	V	4600507	6	243744
A	25-23511	C		FILTER BANDPASS	V	4600507	6	243746
C	29-22834	D		TERMINAL GOLD PLATED	V	4600507	6	243748
A	30-14029		D	WIRE ELECT-INSULATED	V	4600507	6	243750
B	43-22817	D		SPACER SANDWICH	V	4600507	6	243752
A	48-21949	D	A	TSTR HIGH SPEED MEDIUM	V	4600507	6	243754
A	48-22608	C		TSTR SILICON PNP	V	4600507	6	243756
A	48-22608	C		TSTR SILICON PNP	V	4600507	6	243758
A	48-23591	C	D	TRANSISTOR SILICON PN	V	4600507	6	243760
A	48-23595	C		SEMICONDUCTOR DEVICE	V	4600507	6	243762
A	48-29551	A	B	TRANSISTOR SILICON	V	4600507	6	243764
A	48-29554	A	A	SEMICONDUCTOR DEVICE	V	4600507	6	243766
A	48-29580	A		SEMICONDUCTOR DEVICE	V	4600507	6	243768
C	62-22821	D		MOD CONFIGURATION SPEC	V	4600507	6	243770
C	81-22824	D		MOLD WIRE ENCAPSULATION	V	4600507	6	243772
A	BM 01-20414	D01		TWO 4 INPUT NAND GATES	V	COMMAND SYS	5	243775
A	BM 01-20428	C01		CLOCK SHAPER/DELAY UNIT	V	COMMAND SYS	5	243776
A	01-21102	D02		NO TITLE	V	COMMAND SYS	5	243777
A	01-21102	D01		NO TITLE	V	COMMAND SYS	5	243778
A	01-21163	D04		PCB 1A7A3 CRL DRIVER	V	COMMAND SYS	5	243779
A	BM 01-21163	C04		CARD ASSY CRL DRIVER	V	COMMAND SYS	5	243780
A	01-21172	C01		DIG O SHIFTER #3	V	COMMAND SYS	5	243781
A	BM 01-21194	D02		COMPARITOR LOGIC	V	COMMAND SYS	5	243782
A	01-21194	D02		COMPARITOR LOGIC	V	COMMAND SYS	5	243783
A	BM 01-21294	D01		DTP ISOLATION BD #3	V	COMMAND SYS	5	243784
A	BM 01-26340	B01		CLOCK/RESET/DRIVER	V	COMMAND SYS	5	243785
A	BM 01-26376	B		DUAL IP SWITCH MODULE	V	COMMAND SYS	5	243786
A	BM 01-26377	B		IS SWITCH MODULE	V	COMMAND SYS	5	243787
A	BM 01-28638	A01		TERMINATION BUFFER MOD	V	COMMAND SYS	5	243788
A	06-20005		A	RESISTOR FIXED FILM	V	COMMAND SYS	5	243789
A	11-22836	D	A	RUBBER SILICONE	V	COMMAND SYS	5	243790
A	30-21270	DWL		EXTERNAL CABLE	V	COMMAND SYS	5	243793
A	48-22842	D	D	TRANSISTOR FIELD EFFECT	V	COMMAND SYS	5	243794
A	48-22843	D	D	SEMICONDUCTOR DEVICE	V	COMMAND SYS	5	243795
A	90-21260	DWL		EXTENTION CABLES	V	COMMAND SYS	5	243796

JPL 1887 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 76 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	90-21261	DWL		EXTERNAL CABLE W3	V	COMMAND SYS	5	243797
A	90-21263	DWL		EXTERNAL CABLE	V	COMMAND SYS	5	243798
A	90-21265	DWL		EXTERNAL CABLE	V	COMMAND SYS	5	243799
A	90-21266	DWL		EXTERNAL CABLE	V	COMMAND SYS	5	243800
A	90-21267	DWL		EXTERNAL CABLE	V	COMMAND SYS	5	243801
A	90-21268	DWL		EXTERNAL CABLE	V	COMMAND SYS	5	243802
A	90-21306	DWL		DATA LOGGER WIRE LISTS	V	COMMAND SYS	5	243803
D	4600508	CD	A	PN GENERATORS BA1	LX	4600519	5	243850
D	4901049		B	SUBCHASSIS MACHINED	L	4600508	6	243900
D	509633		A	PN GENERATORS&ADC/PNG	V	4600508	6	244000
A	483333		A	ENCAPSULATION PROCEDURE	V	509633	7	244100
A	492353	WL		PT-TO PT PN GENERATOR	V	509633	7	244200
D	492374		B	P/N GENERATOR A&GATING	V	509633	7	244300
C	492274			INSULATION SH#1 PCB	V	492374	8	244400
C	492373			PCB P/N GENERATOR A&GATE	V	492374	8	244500
D	509564		A	HI SPEED 4&2 NAND GATE	V	492374	8	244600
C	492007			PCB HI SPEED 4&2 INPUT	V	509564	9	244700
C	492008			PCB HI SPEED 4&2 INPUT	V	509564	9	244800
C	509563			DIAG ELECT SCHEM HI SPED	V	509564	9	244900
A	509565			MARKING HI SPEED 4&2	V	509564	9	245000
D	509567		A	LO SPEED 4&2 NOR GATE	V	492374	8	245100
C	492012			PCB LO SPEED 4&2 INPUT	V	509567	9	245200
C	492013			PCB LO SPEED 4&2 INPUT	V	509567	9	245300
C	509566			DIAG ELECT SCHEM LO SPED	V	509567	9	245400
A	509568			MARKING LO-SPEED 4&2 NOR	V	509567	9	245500
D	509576		A	HI SPEED 8 INPUT NAND	V	492374	8	245600
C	492027			PCB HI SPEED 8 INPUT	V	509576	9	245700
C	492028			PCB HI SPEED 8 INPUT	V	509576	9	245800
C	509575			DIAG ELECT SCHEM HI SPD	V	509576	9	245900
A	509577			MARKING HI-SPEED 8 NAND	V	509576	9	246000
D	509582		A	HI SPEED R-S FLIP-FLOP	V	492374	8	246100
C	492037			PCB HI SPEED RS F/F	V	509582	9	246200
C	492038			PCB HI SPEED RS F/F	V	509582	9	246300
C	509581			DIAG ELECT SCHEM HI SPD	V	509582	9	246400
A	509583			MARKING HI-SPEED RS F/F	V	509582	9	246500
D	509593		A	HI SPEED NON-INVERTING	V	492374	8	246600
C	492057			PCB HI SPEED NON-INVERT	V	509593	9	246700
C	492058			PCB HI SPEED NON-INVERT	V	509593	9	246800
C	509592			DIAG ELECT SCHEM HI SPD	V	509593	9	246900
A	509594			MARKING HI-SPEED DRIVER	V	509593	9	247000

JPL 1887 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 77 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
E	509623			DIAGRAM ELECTRONIC SCHEM	V	492374	8	247100
A	512652	WL		PT-TO-PT P/N GEN A&GATNG	V	492374	8	247200
E	509623			DIAGRAM ELECTRONIC SCHEM	V	509633	6	247300
D	509632		A	P/N GENERATOR B&GATING	V	509633	6	247400
C	492143		A	PCB PN GENERATOR B&GATNG	V	509632	7	247500
C	492274			INSULATION SH#1 PCB	V	509632	7	247600
A	492278	WL	B	PT-TO-PT P/N GEN B&GATNG	V	509632	7	247700
D	509564		A	HI SPEED 4&2 NAND GATE	V	509632	7	247800
D	509567		A	LO SPEED 4&2 NOR GATE	V	509632	7	247900
D	509576		A	HI SPEED 8 INPUT NAND	V	509632	7	248000
D	509582		A	HI SPEED R-S FLIP-FLOP	V	509632	7	248100
D	509590		A	LO SPEED NON-INVERTING	V	509632	7	248200
C	492051			DIAGRAM ELECTRONIC SCHEM	V	509590	8	248300
C	492052			PCB LO SPEED NON-INVERT	V	509590	8	248400
C	492053			PCB LO SPEED NON-INVERT	V	509590	8	248500
A	509591			MARKING LO SPEED DRIVER	V	509590	8	248600
D	509593		A	HI SPEED NON-INVERTING	V	509632	7	248700
E	509623			DIAGRAM ELECTRONIC SCHEM	V	509632	7	248800
D	509668			ENCODER SUBCHASSIS 6A1	V	509633	6	248900
A	492201			SURFACE TREATMENT	V	509668	7	249000
C	509634			MARKING SUBCHASSIS	V	509668	7	249100
D	4600509	CD	A	MODULATOR 6A2	LX	4600519	5	249200
D	4901049		B	SUBCHASSIS MACHINED	L	4600509	6	249300
D	509636		A	MODULATOR XFER REGISTER	V	4600509	6	249400
A	483333		A	ENCAPSULATION PROCEDURE	V	509636	7	249500
A	492354	WL	A	PT-TO-PT BI-D MOD&XFER	V	509636	7	249600
D	492372		B	MODULATOR & COMMAND	V	509636	7	249700
B	492241			INSULATOR-ROUND	V	492372	8	249800
C	492274			INSULATION SH#1 PCB	V	492372	8	249900
C	492371		A	PCB MODULATOR&COM GATING	V	492372	8	250000
J	492397		A	DIAG ELECT SCHEMATIC	V	492372-1	8	250100
D	509561		A	LO SPEED 4&2 NAND GATES	V	492372	8	250200
C	492002			PCB LO SPEED 4&2 INPUT	V	509561	9	250300
C	492003			PCB LO SPEED 4&2 INPUT	V	509561	9	250400
C	509560			DIAG ELECT SCHEM LO SPED	V	509561	9	250500
A	509562			MARKING LO-SPEED 4&2	V	509561	9	250600
D	509579		A	LO SPEED R-S FLIP-FLOP	V	492372	8	250700
C	492032			PCB LO SPEED RS F/F	V	509579	9	250800
C	492033			PCB LO SPEED RS F/F	V	509579	9	250900
A	509580			MARKING LO-SPEED RS F/F	V	509579	9	251000

JPL 1287 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 78 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	509585		A	LO SPEED UNIFERSAL F/F	V	492372	8	251100
C	492042			PCB LO SPEED UNIVERSAL	V	509585	9	251200
C	492043			PCB LO SPEED UNIVERSAL	V	509585	9	251300
C	509584			DIAG ELECT SCHEM LO SPD	V	509585	9	251400
A	509586			MARKING LO-SPEED UNIVERS	V	509585	9	251500
D	509593		A	HI SPEED NON-INVERTING	V	492372	8	251600
A	512653	WL	A	PT-TO-PT MOD&COM GATING	V	492372	8	251700
J	492397		A	DIAG ELECT SCHEMATIC	V	509636	7	251800
D	509635		A	XFER REG&DATA SELECTION	V	509636	7	251900
C	492148		C	PCB XFER REGISTER&DATA	V	509635	8	252000
C	492274			INSULATION SH#1 PCB	V	509635	8	252100
A	492299	WL		PT-TO-PT XFER REGISTER	V	509635	8	252200
J	492397		A	DIAG ELECT SCHEMATIC	V	509635-1	8	252300
D	509561		A	LO SPEED 4&2 NAND GATES	V	509635	8	252400
D	509564		A	HI SPEED 4&2 NAND GATE	V	509635	8	252500
D	509579		A	LO SPEED R-S FLIP-FLOP	V	509635	8	252600
C	509578			DIAG ELECT SCHEM LO SPD	V	509579	9	252700
D	509585		A	LO SPEED UNIFERSAL F/F	V	509635	8	252800
D	509669			ENCODER SUBCHASSIS 6A2	V	509636	7	252900
A	492201			SURFACE TREATMENT	V	509669	8	253000
C	509637			MARKING SUBCHASSIS	V	509669	8	253100
D	4600510	CD		ANAL-DIG CONVRTR 6A3/6A4	LX	4600519	5	253200
D	4901049		B	SUBCHASSIS MACHINED	L	4600510	6	253300
4	509639		A	ANALOG 2D DIGITAL CONV	V	4600510	6	253400
A	483333		A	ENCAPSULATION PROCEDURE	V	509639	7	253500
A	492360	WL		PT-TO-PT ANALOG-TO-DIG	V	509639	7	253600
D	492380		B	ADC COMPARATOR & ISOLAT	V	509639	7	253700
B	492241			INSULATOR-ROUND	V	492380	8	253800
C	492274			INSULATION SH#1 PCB	V	492380	8	253900
A	492281	WL		PT-TO-PT ADC COMPARATOR	V	492380	8	254000
C	492379			PCB ADC COMPARATOR& OSC	V	492380	8	254100
E	492396		A	DIAGRAM ELECTRONIC SCHEM	V	492380	8	254200
D	509618		B	5 STAGE SEQUENCER B	V	492396	9	254300
D	509612		A	LADDER SWITCH	V	492380	8	254400
C	492091			DIAG ELECT SCHEM LADDER	V	509612	9	254500
C	492092			PCB LADDER SWITCH TOP	V	509612	9	254600
C	492093			PCB LADDER SWITCH BOT	V	509612	9	254700
A	509613			MARKING LADDER SWITCH	V	509612	9	254800
E	492396		A	DIAGRAM ELECTRONIC SCHEM	V	509639	7	254900
D	509638		A	ANALOG TO DIGITAL CONV	V	509639	7	255000

JPL 1287 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 79 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	492153			PCB ADC LOGIC	V	509638	8	255100
C	492274			INSULATION SH#1 PCB	V	509638	8	255200
A	492300	WL		PT-TO-PT ADC LOGIC	V	509638	8	255300
E	492396		A	DIAGRAM ELECTRONIC SCHEM	V	509638	8	255400
D	509564		A	HI SPEED 4&2 NAND GATE	V	509638	8	255500
D	509576		A	HI SPEED 8 INPUT NAND	V	509638	8	255600
D	509582		A	HI SPEED R-S FLIP-FLOP	V	509638	8	255700
D	509588		A	HI SPEED UNIVERSAL F/F	V	509638	8	255800
C	492047			PCB HI SPEED UNIVERSAL	V	509588	9	255900
C	492048			PCB HI SPEED UNIVERSAL	V	509588	9	256000
C	509587			DIAG ELECT SCHEM HI SPD	V	509588	9	256100
A	509589			MARKING HI SPEED UNIVERS	V	509588	9	256200
D	509593		A	HI SPEED NON-INVERTING	V	509638	8	256300
D	509615		A	ADC ASTABLE 150 KC	V	509638	8	256400
C	492102			PCB ADC ASTABLE TOP	V	509615	9	256500
C	492103			PCB ADC ASTABLE BOT	V	509615	9	256600
C	509614			DIAG ELECT SCHEM ADC	V	509615	9	256700
A	509616			MARKING ADC ASTABLE	V	509615	9	256800
D	509670			ENCODER SUBCHASSIS 6A3/4	V	509639	7	256900
A	492201			SURFACE TREATMENT	V	509670	8	257000
C	509640			MARKING SUBCHASSIS	V	509670	8	257100
D	4600511	CD		EVENT COUNTERS 6A5	LX	4600519	5	257200
D	4901049		B	SUBCHASSIS MACHINED	L	4600511	6	257300
D	509643		A	EVENT CNTRS&EVENT TIMER	V	4600511	6	257400
A	483333		A	ENCAPSULATION PROCEDURE	V	509643	7	257500
J	505171			DIAGRAM ELECTRONIC SCHEM	V	509643	7	257600
A	505174	WL		PT-TO-PT EVENT CNTRS	V	509643	7	257700
D	509641			EVENT COUNTERS 1,2&3	V	509643	7	257800
C	492156			PCB EVENT COUNTERS 1,2&3	V	509641	8	257900
C	492274			INSULATION SH#1 PCB	V	509641	8	258000
J	505171			DIAGRAM ELECTRONIC SCHEM	V	509641	8	258100
A	505172	WL		PT-TO-PT EVENT CNTRS 123	V	509641	8	258200
D	509561		A	LO SPEED 4&2 NAND GATES	V	509641	8	258300
D	509564		A	HI SPEED 4&2 NAND GATE	V	509641	8	258400
D	509570		B	INPUT CONDITIONING CKT	V	509641	8	258500
C	492017			PCB INPUT COND CIRCUIT	V	509570	9	258600
C	492018		A	PCB INPUT COND CIRCUIT	V	509570	9	258700
C	509569			DIAG ELECT SCHEM INPUT	V	509570	9	258800
A	509571			MARKING INPUT CONDITIONR	V	509570	9	258900
D	509585		A	LO SPEED UNIFERSAL F/F	V	509641	8	259000

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 80 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	509642			COUNTER 4&EVENT TIMER	V	509643	7	259100
C	492158			PCB EVENT CNTR #4&TIMER	V	509642	8	259200
C	492274			INSULATION SH#1 PCB	V	509642	8	259300
J	505171			DIAGRAM ELECTRONIC SCHEM	V	509642	8	259400
A	505173	WL		PT-TO-PT EVENT CNTR 4	V	509642	8	259500
D	509561		A	LO SPEED 4&2 NAND GATES	V	509642	8	259600
D	509570		B	INPUT CONDITIONING CKT	V	509642	8	259700
D	509573		A	LO SPEED 8 INPUT NAND	V	509642	8	259800
C	492022			PCB LO SPEED 8 INPUT	V	509573	9	259900
C	492023			PCB LO SPEED 8 INPUT	V	509573	9	260000
C	509572			DIAG ELECT SCHEM LO SPED	V	509573	9	260100
A	509574			MARKING LO SPEED 8 NAND	V	509573	9	260200
D	509579		A	LO SPEED R-S FLIP-FLOP	V	509642	8	260300
D	509585		A	LO SPEED UNIFERSAL F/F	V	509642	8	260400
D	509671			ENCODER SUBCHASSIS 6A5	V	509643	7	260500
A	492201			SURFACE TREATMENT	V	509671	8	260600
C	509644			MARKING SUBCHASSIS	V	509671	8	260700
D	4600512	CD		FUNCTIONAL SWITCHING 6A6	LX	4600519	5	260800
D	4901049		B	SUBCHASSIS MACHINED	L	4600512	6	260900
D	509647			FUNCTIONAL SWITCHING 6A6	V	4600512	6	261000
A	483333		A	ENCAPSULATION PROCEDURE	V	509647	7	261100
E	492119		B	DIAG ELECT SCHEMATIC	V	509647	7	261200
A	492305	WL	B	PT-TO-PT FUNCT SW 6A6	V	509647	7	261300
D	509645		B	FUNCT SW INPUT CIRCUITS	V	509647	7	261400
5	492119		B	DIAG ELECT SCHEMATIC	V	509645	8	261500
C	492161			PCB FUNCTIONAL SWITCHING	V	509645	8	261600
B	492241			INSULATOR-ROUND	V	509645	8	261700
C	492274			INSULATION SH#1 PCB	V	509645	8	261800
A	492285	WL	B	PT-TO-PT FUNCT SW INPUT	V	509645	8	261900
D	509564		A	HI SPEED 4&2 NAND GATE	V	509645	8	262000
D	509579		A	LO SPEED R-S FLIP-FLOP	V	509645	8	262100
D	509604		B	RELAY DRIVER	V	509645	8	262200
C	492076		A	DIAG ELECT SCHEM RELAY	V	509604	9	262300
C	492077			PCB RELAY DRIVER TOP	V	509604	9	262400
C	492078			PCB RELAY DRIVER BOT	V	509604	9	262500
A	509605			MARKING RELAY DRIVER	V	509604	9	262600
D	509646		A	FUNCT SW RELAY&CAPACITOR	V	509647	7	262700
E	492119		B	DIAG ELECT SCHEMATIC	V	509646	8	262800
C	492163			PCB FUNCTIONAL SWITCHING	V	509646	8	262900
C	492274			INSULATION SH#1 PCB	V	509646	8	263000

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 81 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	492286	WL	A	PT-TO-PT FUNCT SW RELAYS	V	509646	8	263100
D	509604		B	RELAY DRIVER	V	509646	8	263200
D	509672			ENCODER SUBCHASSIS 6A6	V	509647	7	263300
A	492201			SURFACE TREATMENT	V	509672	8	263400
C	509648			MARKING SUBCHASSIS	V	509672	8	263500
D	4600513	CD		DECKS 100, 110 6A7	LX	4600519	5	263600
D	4901049		B	SUBCHASSIS MACHINED	L	4600513	6	263700
D	509649		A	DECKS 100 110&COMMUTATOR	V	4600513	6	263800
A	483333		A	ENCAPSULATION PROCEDURE	V	509649	7	263900
D	492384		B	DECK 100 & COMMUTATOR	V	509649	7	264000
C	492274			INSULATION SH#1 PCB	V	492384	8	264100
C	492383			PCB DECK 100&COMMUTATOR	V	492384	8	264200
D	509561		A	LO SPEED 4&2 NAND GATES	V	492384	8	264300
D	509579		A	LO SPEED R-S FLIP-FLOP	V	492384	8	264400
D	509596		B	5 STAGE SEQUENCER A	V	492384	8	264500
C	492062			PCB 5 STAGE SEQUENCER A	V	509596	9	264600
C	492063			PCB 5 STAGE SEQUENCER A	V	509596	9	264700
C	509595			DIAG ELECT SCHEM 5 STAGE	V	509596	9	264800
A	509597			MARKING SEQUENCER A	V	509596	9	264900
D	509602		B	CLOCK DRIVER	V	492384	8	265000
C	492340			PCB CLOCK DRIVER TOP	V	509602	9	265100
C	492341			PCB CLOCK DRIVER BOT	V	509602	9	265200
C	509601			DIAG ELECT SCHEM CLOCK	V	509602	9	265300
A	509603			MARKING CLOCK DRIVER	V	509602	9	265400
D	509618		B	5 STAGE SEQUENCER B	V	492384	8	265500
C	492111			PCB 5 STAGE SEQUENCER B	V	509618	9	265600
C	492112			PCB 5 STAGE SEQUENCER B	V	509618	9	265700
C	509617			DIAG ELECT SCHEM 5 STAGE	V	509618	9	265800
A	509619			MARKING SEQUENCER B	V	509618	9	265900
D	509621		B	HIGH LEVEL SWITCH	V	492384	8	266000
C	492267		B	PCB HI LEVEL SWITCH TOP	V	509621	9	266100
C	492268		A	PCB HI LEVEL SWITCH BOT	V	509621	9	266200
C	492437			XFORMER SOLID STATE SW	V	509621	9	266300
C	509620			DIAG ELECT SCHEM HI LEVL	V	509621	9	266400
A	509622			MARKING HI LEVEL SWITCH	V	509621	9	266500
E	509626		A	DIAGRAM ELECTRONIC SCHEM	V	492384	8	266600
A	512654	WL		PT-TO-PT DECK 100	V	492384	8	266700
D	492386		B	DECK 110 & FORMAT GEN	V	509649	7	266800
C	492274			INSULATION SH#1 PCB	V	492386	8	266900
C	492385		A	PCB DECK 110&FORMAT GEN	V	492386	8	267000

JPL 1557 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 82 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	509561		A	LO SPEED 4&2 NAND GATES	V	492386	8	267100
D	509579		A	LO SPEED R-S FLIP-FLOP	V	492386	8	267200
D	509596		B	5 STAGE SEQUENCER A	V	492386	8	267300
D	509599		B	SYNCHRONIZER	V	492386	8	267400
C	492067			PCB SYNCHRONIZER TOP	V	509599	9	267500
C	492068			PCB SYNCHRONIZER BOT	V	509599	9	267600
C	509598			DIAG ELECT SCHEM SYNCH	V	509599	9	267700
A	509600			MARKING SYNCHRONIZER	V	509599	9	267800
D	509618		B	5 STAGE SEQUENCER B	V	492386	8	267900
D	509621		B	HIGH LEVEL SWITCH	V	492386	8	268000
E	509626		A	DIAGRAM ELECTRONIC SCHEM	V	492386	8	268100
A	512655	WL	A	TPI-TO-PT DECK 110	V	492386	8	268200
E	509626		A	DIAGRAM ELECTRONIC SCHEM	V	509649	7	268300
D	509673			ENCODER SUBCHASSIS 6A7	V	509649	7	268400
A	492201			SURFACE TREATMENT	V	509673	8	268500
C	509650			MARKING SUBCHASSIS	V	509673	8	268600
A	512656	WL		PT-TO-PT DECKS 100&110	V	509649	7	268700
D	4600514	CD	A	DECK 210, 220 6A8	LX	4600519	5	268800
D	4901049		B	SUBCHASSIS MACHINED	L	4600514	6	268900
D	509651		A	DECKS 210&220	V	4600514	6	269000
A	483333		A	ENCAPSULATION PROCEDURE	V	509651	7	269100
D	492376		B	DECK 220 & SLOW DECK	V	509651	7	269200
C	492274			INSULATION SH#1 PCB	V	492376	8	269300
C	492375			PCB DECK 220&SLOW DECK	V	492376	8	269400
D	509561		A	LO SPEED 4&2 NAND GATES	V	492376	8	269500
D	509585		A	LO SPEED UNIFERSAL F/F	V	492376	8	269600
D	509596		B	5 STAGE SEQUENCER A	V	492376	8	269700
D	509599		B	SYNCHRONIZER	V	492376	8	269800
D	509602		B	CLOCK DRIVER	V	492376	8	269900
D	509618		B	5 STAGE SEQUENCER B	V	492376	8	270000
D	509621		B	HIGH LEVEL SWITCH	V	492376	8	270100
E	509627		B	DIAG ELECT SCHEMATIC	V	492376-1	8	270200
A	512657	WL	B	PT-TO-PT DECK 220	V	492376	8	270300
D	492388		C	DECK 210 & CONSTANT	V	509651	7	270400
C	492274			INSULATION SH#1 PCB	V	492388	8	270500
C	492387		A	PCB DECK 210&CONSTANT	V	492388	8	270600
D	509607		B	LO LEVEL SINGLE-POLE SW	V	492388	8	270700
C	492082		A	PCB SINGLE POLE SW TOP	V	509607	9	270800
C	492083			PCB SINGLE POLE SW BOT	V	509607	9	270900
C	492437			XFORMER SOLID STATE SW	V	509607	9	271000

JPL 1557 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 83 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	509606			DIAG ELECT SCHEM SINGLE	V	509607	9	271100
A	509608			MARKING SP SWITCH	V	509607	9	271200
D	509610		B	LO LEVEL DOUBLE-POLE SW	V	492388	8	271300
C	492087			PCB DOUBLE POLE SW TOP	V	509610	9	271400
C	492088			PCB DOUBLE POLE SW BOT	V	509610	9	271500
C	492437			XFORMER SOLID STATE SW	V	509610	9	271600
C	509609			DIAG ELECT SCHEM LO-LEVL	V	509610	9	271700
A	509611			MARKING DOUBLE POLE SW	V	509610	9	271800
E	509627		B	DIAG ELECT SCHEMATIC	V	492388-1	8	271900
A	512658	WL	A	PT-TO-PT DECK 210&CONST	V	492388	8	272000
E	509627		B	DIAG ELECT SCHEMATIC	V	509651-1	7	272100
D	509674			ENCODER SUBCHASSIS 6A8	V	509651	7	272200
A	492201			SURFACE TREATMENT	V	509674	8	272300
C	509652			MARKING SUBCHASSIS	V	509674	8	272400
A	512659	WL	A	PT-TO-PT DECKS 210 & 220	V	509651	7	272500
D	4600515	CD	A	DECKS 200,300 6A9	LX	4600519	5	272600
D	4901049		B	SUBCHASSIS MACHINED	L	4600515	6	272700
D	509654			DECKS 200&300 6A9	V	4600515	6	272800
A	483333		A	ENCAPSULATION PROCEDURE	V	509654	7	272900
A	492313		A	INSERT TOROID	V	509654	7	273000
B	492359			WASHER FLAT	V	509654	7	273100
D	492390		B	DECK 200 & AGENA ISO AMP	V	509654	7	273200
C	457735		A	TRANSFORMER AUDIO	V	492390	8	273300
C	492274			INSULATION SH#1 PCB	V	492390	8	273400
C	492389			PCB DECK 200&AGENA ISO	V	492390	8	273500
D	509596		B	5 STAGE SEQUENCER A	V	492390	8	273600
D	509602		B	CLOCK DRIVER	V	492390	8	273700
D	509618		B	5 STAGE SEQUENCER B	V	492390	8	273800
D	509621		B	HIGH LEVEL SWITCH	V	492390	8	273900
E	509628			DIAGRAM ELECTRONIC SCHEM	V	492390	8	274000
A	512660	WL		PT-TO-PT DECK 200&AGENA	V	492390	8	274100
D	509653		A	DECK 300 6A9A2	V	509654	7	274200
C	492178		B	PCB DECK 300	V	509653	8	274300
C	492274			INSULATION SH#1 PCB	V	509653	8	274400
D	509561		A	LO SPEED 4&2 NAND GATES	V	509653	8	274500
D	509596		B	5 STAGE SEQUENCER A	V	509653	8	274600
D	509599		B	SYNCHRONIZER	V	509653	8	274700
D	509602		B	CLOCK DRIVER	V	509653	8	274800
D	509618		B	5 STAGE SEQUENCER B	V	509653	8	274900
D	509621		B	HIGH LEVEL SWITCH	V	509653	8	275000

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 84 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	512661	WL		PT-TO-PT DECK 300	V	509653	8	275100
D	509675		A	ENCODER SUBCHASSIS 6A9	V	509654	7	275200
A	492201			SURFACE TREATMENT	V	509675	8	275300
C	509655			MARKING SUBCHASSIS	V	509675	8	275400
A	512662	WL		PT-TO-PT DECKS 200 & 300	V	509654	7	275500
D	4600516	CD	A	DECKS 400,410 6A10	LX	4600519	5	275600
D	4901049		B	SUBCHASSIS MACHINED	L	4600516	6	275700
D	509657		A	DECKS 400&410 6A10	V	4600516	6	275800
A	483333		A	ENCAPSULATION PROCEDURE	V	509657	7	275900
D	492392		A	DECK 400	V	509657	7	276000
C	492274			INSULATION SH#1 PCB	V	492392	8	276100
C	492391			PCB DECK 400	V	492392	8	276200
D	509596		B	5 STAGE SEQUENCER A	V	492392	8	276300
D	509602		B	CLOCK DRIVER	V	492392	8	276400
D	509610		B	LO LEVEL DOUBLE-POLE SW	V	492392	8	276500
D	509618		B	5 STAGE SEQUENCER B	V	492392	8	276600
E	509629		B	DIAGRAM ELECTRONIC SCHEM	V	492392	8	276700
A	512663	WL		PT-TO-PT DECK 400	V	492392	8	276800
E	509629		B	DIAGRAM ELECTRONIC SCHEM	V	509657	7	276900
D	509656		C	DECK 410 6A10A2	V	509657	7	277000
C	492183			PCB DECK 410	V	509656	8	277100
A	492235	WL		PT-TO-PT DECK 410	V	509656	8	277200
C	492274			INSULATION SH#1 PCB	V	509656	8	277300
D	509579		A	LO SPEED R-S FLIP-FLOP	V	509656	8	277400
D	509607		B	LO LEVEL SINGLE-POLE SW	V	509656	8	277500
D	509610		B	LO LEVEL DOUBLE-POLE SW	V	509656	8	277600
E	509629		B	DIAGRAM ELECTRONIC SCHEM	V	509656	8	277700
D	509676			ENCODER SUBCHASSIS 6A10	V	509657	7	277800
A	492201			SURFACE TREATMENT	V	509676	8	277900
C	509658			MARKING SUBCHASSIS	V	509676	8	278000
A	512664	WL	A	PT-TO-PT DECKS 400 & 410	V	509657	7	278100
D	4600517	CD	A	DECKS 420 430 6A11	LX	4600519	5	278200
D	4901049		B	SUBCHASSIS MACHINED	L	4600517	6	278300
D	509660		A	DECKS 420&430 6A11	V	4600517	6	278400
A	483333		A	ENCAPSULATION PROCEDURE	V	509660	7	278500
D	492394		A	DECK 420 6A11A2	V	509660	7	278600
C	492274			INSULATION SH#1 PCB	V	492394	8	278700
C	492393			PCB DECK 420	V	492394	8	278800
D	509596		B	5 STAGE SEQUENCER A	V	492394	8	278900
D	509602		B	CLOCK DRIVER	V	492394	8	279000

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 85 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	509610		B	LO LEVEL DOUBLE-POLE SW	V	492394	8	279100
E	509630		A	DIAGRAM ELECTRONIC SCHEM	V	492394	8	279200
A	512665	WL		PT-TO-PT DECK 420	V	492394	8	279300
E	509630		A	DIAGRAM ELECTRONIC SCHEM	V	509660	7	279400
D	509659		A	DECK 430 6A11A1	V	509660	7	279500
C	492186			PCB DECK 430	V	509659	8	279600
C	492274			INSULATION SH#1 PCB	V	509659	8	279700
A	492295	WL		PT-TO-PT DECK 430	V	509659	8	279800
D	509610		B	LO LEVEL DOUBLE-POLE SW	V	509659	8	279900
E	509630		A	DIAGRAM ELECTRONIC SCHEM	V	509659	8	280000
D	509677			ENCODER SUBCHASSIS 6A11	V	509660	7	280100
A	492201			SURFACE TREATMENT	V	509677	8	280200
C	509661			MARKING SUBCHASSIS	V	509677	8	280300
A	512666	WL		PT-TO-PT DECKS 420 & 430	V	509660	7	280400
D	4600518	CD		LOW LEVEL AMPLIFIER 6A12	LX	4600519	5	280500
D	4901049		B	SUBCHASSIS MACHINED	L	4600518	6	280600
D	509664			LO LEVEL AMPLIFIER &DIG	V	4600518	6	280700
A	483333		A	ENCAPSULATION PROCEDURE	V	509664	7	280800
A	492311	WL	A	PT-TO-PT LO LEVEL AMP	V	509664	7	280900
J	509631		A	DIAGRAM ELECTRONIC SCHEM	V	509664	7	281000
D	509662		A	LO LEVEL AMPLIFIER	V	509664	7	281100
C	492191			PCB LO LEVEL AMPLIFIER	V	509662	8	281200
B	492241			INSULATOR-ROUND	V	509662	8	281300
C	492273		C	XFMR 20KC CHOPPER DR OSC	V	509662	8	281310
C	492274			INSULATION SH#1 PCB	V	509662	8	281400
A	492297	WL	A	PT-TO-PT LO-LEVEL AMPL	V	509662	8	281500
D	509579		A	LO SPEED R-S FLIP-FLOP	V	509662	8	281600
J	509631		A	DIAGRAM ELECTRONIC SCHEM	V	509662	8	281700
D	509663			DIGITAL WORD PROGRAMMER	V	509664	7	281800
C	492193		A	PCB DIGITAL WORD PROG	V	509663	8	281900
C	492274			INSULATION SH#1 PCB	V	509663	8	282000
A	492298	WL	B	PT-TO-PT DIGITAL WORD	V	509663	8	282100
D	509561		A	LO SPEED 4&2 NAND GATES	V	509663	8	282200
D	509564		A	HI SPEED 4&2 NAND GATE	V	509663	8	282300
D	509573		A	LO SPEED 8 INPUT NAND	V	509663	8	282400
D	509576		A	HI SPEED 8 INPUT NAND	V	509663	8	282500
D	509590		A	LO SPEED NON-INVERTING	V	509663	8	282600
J	509631		A	DIAGRAM ELECTRONIC SCHEM	V	509663	8	282700
D	509678			ENCODER SUBCHASSIS 6A12	V	509664	7	282800
A	492201			SURFACE TREATMENT	V	509678	8	282900

JPL 1967 JUN 69

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 86 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	509665			MARKING SUBCHASSIS	V	509678	8	283000
J	4600523		B	CHASSIS ASSY	L	4600519	5	283100
J	4901046		C	CHASSIS BASIC ASSY	L	4600523	6	283200
A	90433			SURFACE TREATMENT	L	4901046	7	283300
J	4901107		E	TRANSDUCER TEMPERATURE	L	4600523	6	283400
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4901107	7	283500
B	4800078		B	CLAMP WIRE	L	4901107	7	283600
B	4901137		A	GROMMET TEFLON	L	4901107	7	283700
D	4901158		A	SCREW MACHINE PAN HEAD	L	4901107	7	283800
J	4900666		A	CASE & HARNESS ASSY	L	4600519	5	283900
B	4900567		C	9W6 WIRING HARNESS	L	4900666	6	284000
B	4900568		C	9W3 WIRING HARNESS	L	4900666	6	284100
D	4900661			SPT ASSY CASE HARNESS	L	4900666	6	284200
D	4900659		B	BRACKET CONNECTOR MTG	L	4900661	7	284300
C	4900658		A	END BRACKET	L	4900659	8	284400
C	4900670		A	END BRACKET	L	4900659	8	284500
J	4900660		B	SPT CABLE HARNESS	L	4900661	7	284600
D	4900671			BRACKET CONNECTOR MTG	L	4900661	7	284700
B	4901216			POTTING CUP MODIFIED	L	4900666	6	284710
J	4600520		C	RECEIVER & TAPE	L	4901042	4	284800
A	90347			SCREW MACHINE	L	4600520	5	284900
D	4600483	CD	A	RECEIVER XFMR RECT 2TR1	LX	4600520	5	285000
D	01-20669	D	B	XFMR RECTIFIER RECEIVER	V	4600483	6	285100
D	02-15008	A	C	NUT PLAIN HEXAGON	V	01-20669	7	285110
C	05-15082	A		RIVET SOLID-UNIVERSAL HD	V	01-20669	7	285120
A	11-15019	A		TAPE LACING	V	01-20669D01	7	285125
A	23-20787	D	A	CAPACITOR FIXED	V	01-20669D01	7	285130
A	25-20688	D	C	XFMR PWR STEP-DOWN	V	01-20669D01	7	285135
A	25-20690	D	D	REACTOR-FILTER	V	01-20669D01	7	285140
D	27-20693	D	B	CHASSIS ELECTRICAL EQUIP	V	01-20669	7	285200
[illegible]	[illegible]	[illegible]	[illegible]	CABLE ASSY ELECTRICAL	V	01-20669	7	285300
D	42-15029	A	E	HOLDER-COMPONENT	V	01-20669	7	285310
D	63-20681	D	A	RECEIVER XFMR SCHEM	V	01-20669	7	285400
F	63-20867	D	A	PWR SUPP RECEIVER SCHEM	V	01-20669	8	285410
A	80-20759	D	A	RELAY ELECTROMAGNETIC	V	01-20669D01	8	285415
D	4600486	CD	B	RECEIVER SUBASSY 2RA2	L	4600520	5	285500
J	4600484		B	SUBCHASSIS RECEIVER ASSY	L	4600486	6	285600
J	01-20501	D	F	9.56 MC ISOLATION AMPL	V	4600486	6	285700
C	01-20479	D	C	TB1 9.56 ISO AMPLIFIER	V	01-20501	7	285800
D	31-20478	D	B	TERMINAL BOARD	V	01-20479	8	285900

JPL 1967 JUN 69

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

MARINER C OFFSET — PAGE 87 — DATE LISTED 08/27/65

DRAWING LIST, OFFSET

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	01-20481	D	C	TB2 9156 ISO AMPLIFIER	V	01-20501	7	286000
A	11-29509	A	B	INSULATING VARNISH	V	01-20481D01	8	286010
C	24-20622	D	C	XFORMER RADIO FREQ-TI	V	01-20481	8	286100
C	31-20480	D	B	TERMINAL BOARD 2	V	01-20481	8	286200
C	01-20483	D	D	TB8 9156 ISO AMPLIFIER	V	01-20501	7	286300
C	31-20482	D	B	TERMINALD BOARD	V	01-20483	8	286400
C	01-20485	C	A	TB6 9156 ISO AMPLIFIER	V	01-20501	7	286500
C	31-20484	C	A	TB6 9156 ISO AMPLIFIER	V	01-20485	8	286600
A	01-20501	DPL	B	ISO AMPLIFIER	V	01-20501	7	286700
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20501D01	7	286710
E	27-20631	D	C	CHASSIS ELECT EQUIPMENT	V	01-20501	7	286800
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20501	7	286810
A	48-20892	B		TRANSISTOR SILICON	V	01-20501D01	7	286815
C	46-25228	B	B	BLOCK MTG XSISTOR TO 18	V	01-20501	7	286820
H	63-20604	D	D	9156 MC ISO AMPL SCHEM	V	01-20501	7	286900
D	01-20512	D	A	RECEIVER SUBASSY-2RA2	V	4600486	6	286910
A	11-15019	A		TAPE LACING	V	01-20512D01	7	286911
D	30-20518	D	B	CABLE ASSY ELECT 2RA2	V	01-20512	7	286912
D	07-20704	D	A	PRKT CONNECTOR MOUNTING	V	30-20518	8	286914
D	30-20742	D	A	CABLE ASSY RF	V	30-20518	8	286916
A	30-20897	B	A	CABLE R F SUBMINIATURE	V	30-20742	9	286917
A	37-14143			SLEEVING INSULATION	V	30-20742	9	286918
C	30-20743	D	C	CABLE ASSY RF-W5 W6 W7 W	V	30-20518	8	286919
D	70-20591	D	A	2113/2295 MC TRANSPONDER	V	01-20512	7	286920
J	01-20574	C	E	VOLTAGE CONT OSCILLATOR	V	4600486	6	287000
D	4600576		A	SURFACE TEMP TRANSDUCER	L	01-20574	7	287100
C	01-20458	D	B	TB2 ASSY VOLTAGE CONT	V	01-20574	7	287200
A	11-29509	A	B	INSULATING VARNISH	V	01-20458D01	8	287205
C	24-20456	D	B	XFMR RADIO FREQUENCY	V	01-20458	8	287300
C	31-20596	D	A	TB2 VOLTAGE CONTROL OSC	V	01-20458	8	287400
C	01-20459	D	B	TB3 ASY VOLTAGE CONT OSC	V	01-20574	7	287500
A	11-29509	A	B	INSULATING VARNISH	V	01-20459D01	8	287510
C	24-20456	D	B	XFMR RADIO FREQUENCY	V	01-20459	8	287600
C	31-20596	C	A	TB2 VOLTAGE CONTROL OSC	V	01-20459	8	287700
C	01-20460	D	B	TB ASY L1 VOLT CONT OSC	V	01-20574	7	287800
A	11-29509	A	B	INSULATING VARNISH	V	01-20460D01	8	287810
C	24-20449	D	B	INDUCTOR RADIO FREQUENCY	V	01-20460	8	287900
C	31-20597	D	A	TB L1 VOLTAGE CONT OSC	V	01-20460	8	288000
C	01-20461	D	B	TB1 ASY VOLTAGE CONT OSC	V	01-20574	7	288100
A	11-29509	A	B	INSULATING VARNISH	V	01-20461D01	8	288110

JPL 1587 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

MARINER C OFFSET — PAGE 88 — DATE LISTED 08/27/65

DRAWING LIST, OFFSET

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	24-20450	D	B	XFMR RADIO FREQUENCY	V	01-20461	8	288200
C	24-20451	D	B	XFMR RADIO FREQUENCY	V	01-20461	8	288300
C	24-20453	D	B	XFMR RADIO FREQUENCY	V	01-20461	8	288400
C	24-20455	D	B	XFMR RADIO FREQUENCY T6	V	01-20461	8	288500
D	31-20595	D	A	TB1 VOLTAGE CONTROL OSC	V	01-20461	8	288600
A	01-20574	DPL	B	VCO	V	01-20574	7	288700
D	03-15030		A	SETSCREW HEXAGON SOCKET	V	01-20574	7	288710
D	04-15067		A	WASHER LOCK	V	01-20574	7	288720
B	04-15079	A		WASHER LOCK-MINIATURE	V	01-20574	7	288730
D	04-15123		B	WASHER FLAT	V	01-20574	7	288740
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20574D01	7	288750
C	24-20454	D	B	COIL RF L1 VOLT CONT OSC	V	01-20574	7	288800
F	27-20541		D	CHAS EL EQUIP-VOLTAGE	V	01-20574	7	288900
D	28-14012	A	A	CONNECTORS PLUGSRECEPT	V	01-20574	7	288910
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20574	7	288915
C	46-25228	B	B	BLOCK MTG XSISTOR TO 18	V	01-20574	7	288920
A	48-20892	B		TRANSISTOR SILICON	V	01-20574D01	7	288925
C	48-22700	A	E	CRYSTAL UNIT QUARTZ	V	01-20574	7	288930
F	63-20565	D	K	OSCILLATOR RF SCHEMATIC	V	01-20574	7	289000
J	01-20577	D	D	FREQUENCY DIVIDER	V	4600486	6	289100
A	01-20577	DPL	B	FREQUENCY DIVIDER	V	01-20577	7	289200
C	01-20640	D	B	TB ASSY T1 T2 T3	V	01-20577	7	289300
A	11-29509	A	B	INSULATING VARNISH	V	01-20640D01	8	289310
C	24-20552	D	B	XFMR RADIO FREQUENCY	V	01-20640	8	289400
C	24-20553	D	B	XFMR RADIO FREQUENCY	V	01-20640	8	289500
C	24-20554	D	B	XFORMER RADIO FREQUENCY	V	01-20640	8	289600
C	31-20639	C	A	TB FREQ DIVIDER T1 T2 T3	V	01-20640	8	289700
C	01-20642	D	B	TB ASSY FREQ DIVIDER T4	V	01-20577	7	289800
A	11-29509	A	B	INSULATING VARNISH	V	01-20642D01	8	289810
C	24-20555	D	A	TRANSFORMER RADIO FREQ	V	01-20642	8	289900
C	31-20641	C	A	TB FREQ DIVIDER T4	V	01-20642	8	290000
C	01-20644	D	B	TB ASSY FREQ DIVIDER T7	V	01-20577	7	290100
A	11-29509	A	B	INSULATING VARNISH	V	01-20644D01	8	290110
C	24-20491	D	B	XFMR RF T7 FREQ DIVIDER	V	01-20644	8	290200
C	24-20556	D	C	TRANSFORMER RADIO FREQ	V	01-20644	8	290300
C	31-20643	D	B	TB T7 FREQUENCY DIVIDER	V	01-20644	8	290400
C	01-20646	D	B	TB ASSY FREQ DIVIDER T5	V	01-20577	7	290500
A	11-29509	A	B	INSULATING VARNISH	V	01-20646D01	8	290510
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20646D01	8	290515
C	24-20556	D	C	TRANSFORMER RADIO FREQ	V	01-20646	8	290600

JPL 1587 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 89 DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	31-20645	D	A	TB FREQ DIVIDER T5	V	01-20646	8	290700
C	01-20652	C	B	TB ASSY FREQ DIVIDER T6	V	01-20577	7	290800
A	11-29509	A	B	INSULATING VARNISH	V	01-20652D01	8	290810
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20652D01	8	290815
C	24-20556	D	C	TRANSFORMER BADIC FREQ	V	C1-20652	8	290900
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20577D01	7	290910
A	25-29548	A		FILTER LD PASS-FEED-THRU	V	01-20577D01	7	290915
F	27-20638	D	A	CHASSIS ELECT EQUIPMENT	V	C1-20577	7	291000
D	31-20651	D	A	TB FREQ DIVIDER T6	V	01-20577	7	291100
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20577	7	291110
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20577	7	291115
A	48-20892	B		TRANSISTOR SILICON	V	01-20577D01	7	291120
H	63-20634	D	D	FREQ DIVIDER SCHEMATIC	V	01-20577	7	291200
J	C1-20581	D	F	VIDEO AMPLIFIER	V	4600486	6	291300
C	01-20474	D	C	TB ASSY VIDEO AMPLIFIER	V	01-20581	7	291400
C	29-15102	A	B	TERMINAL STUD-SINGLE END	V	01-20474	8	291410
D	31-20473	D	B	TB VIDEO AMPLIFIER	V	C1-20474	8	291500
A	48-29391	B	A	SEMICONDUCTOR DEVICE	V	01-20474D01	8	291510
A	01-20581	DPL	D	VIDEO AMP	V	01-20581	7	291600
A	21-20753	D	B	CAPACITOR FIXED CERAMIC	V	01-20581D01	7	291605
A	24-29542	A	B	COIL RADIO FREQUENCY	V	01-20581	7	291610
A	25-29548	A		FILTER LD PASS-FEED-THRU	V	01-20581D01	7	291615
F	27-20475	D	B	CHASSIS ELECT EQUIPMENT	V	01-20581	7	291700
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20581	7	291710
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20581	7	291715
A	48-20892	B		TRANSISTOR SILICON	V	01-20581D01	7	291720
A	48-29453	B	A	TRANSISTOR SILICON NPN	V	01-20581D01	7	291725
F	63-26279	C	D	VIDEO AMPLIFIER SCHEM	V	01-20581	7	291800
J	01-20605	C	G	PHASE DET & LOOP FILTER	V	4600486	6	291900
A	01-20605	DPL	B	PHASE DETECT & LOOP FILT	V	01-20605	7	292000
C	01-20607	D	B	TB ASSY T1 DETECTOR	V	01-20605	7	292100
A	11-29509	A	B	INSULATING VARNISH	V	01-20607D01	8	292110
C	24-20533	D	B	XFMR RF DETECTOR T1	V	01-20607	8	292200
A	11-29509	A	B	INSULATING VARNISH	V	01-20636D01	8	292210
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20636D01	8	292215
C	31-20606	D	A	TB T1 DETECTOR	V	01-20607	8	292300
C	01-20609	D	C	TB ASSY T2-DETECTOR	V	01-20605	7	292400
A	11-29509	A	B	INSULATING VARNISH	V	01-20609D01	8	292410
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20609D01	8	292415
C	24-20534	D	C	XFORMER RF-DETECTOR T2	V	01-20609	8	292500

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 90 DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	30-20894	B	A	WIRE MAGNET ELECTRICAL	V	24-20534	9	292505
B	29-15099	A	A	TERMINAL STUD-HOLLOW	V	01-20609	8	292510
C	31-20608	D	A	TB T2 DETECTOR	V	01-20609	8	292600
A	48-29391	B	A	SEMICONDUCTOR DEVICE	V	01-20609D01	8	292610
C	01-20611	D	B	TB ASSY T3 DETECTOR	V	01-20605	7	292700
A	11-29509	A	B	INSULATING VARNISH	V	01-20611D01	8	292710
C	24-20535	D	C	XFMR RF DETECTOR T3	V	01-20611	8	292800
C	31-20610	D	A	TB PHASE DETECTOR T3	V	01-20611	8	292900
D	01-20694	D	A	WELDED MODULE ASSY	V	01-20605	7	293000
B	01-20694	DWS	A	LOOP FILTER MODULE	V	01-20694	8	293100
A	06-20006		A	RESISTOR FIXED FILM	V	01-20694D01	8	293110
C	14-20695	D	A	INSULATOR LOOP FILTER	V	01-20694	8	293200
C	14-20696	D	A	INSULATOR LOOP FILTER	V	01-20694	8	293300
C	14-20706	D	A	INSULATOR TERMINAL	V	01-20694	8	293305
B	29-15100	A	A	TERMINAL STUD-BIFURCATED	V	01-20694	8	293310
A	48-20665	C	A	TRANSISTOR SILICON	V	01-20694D01	8	293315
A	48-20666	D	A	TRANSISTOR SILICON	V	01-20694D01	8	293320
A	08-20447	D	A	CAPACITOR FIXED	V	01-20605D01	7	293325
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20605D01	7	293330
A	21-20752	D	E	CAPACITOR FIXED CERAMIC	V	01-20605D01	7	293335
A	25-29548	A		FILTER LD PASS-FEED-THRU	V	01-20605D01	7	293340
F	27-20602	D	B	CHASSIS ELECT EQUIPMENT	V	01-20605	7	293400
C	29-15106	A	C	TERMINAL FEEDTHRU INSUL	V	01-20605	7	293410
C	29-15095	A	C	TERMINAL STUD-INSULATED	V	01-20605	7	293420
C	29-20530	D	A	TERMINAL STUD-INSULATED	V	01-20605	7	293425
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20605	7	293427
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20605	7	293428
A	48-20892	B		TRANSISTOR SILICON	V	01-20605D01	7	293429
D	62-20702	D	B	MODULE CONFIGURATION	V	01-20605	7	293430
F	63-26294	C	E	PHASE DETECTOR SCHEM	V	01-20605	7	293500
J	01-20612	D	G	AGC DETECTOR & AMPL	V	4600486	6	293600
D	01-20463	D	A	WELDED MODULE ASSY	V	01-20612	7	293700
B	01-20463	DWS	A	AGC AMPLIFIER MODULE	V	01-20463	8	293800
A	06-20006		A	RESISTOR FIXED FILM	V	01-20463D01	8	293805
A	11-29571	A		INSULATING COMPOUND	V	01-20463	8	293810
C	14-20465	D	A	INSULATOR AGC AMPL BOT	V	01-20463	8	293900
C	14-20464	D	A	INSULATOR AGC AMPL TOP	V	01-20463	8	294000
C	14-20706	D	A	INSULATOR TERMINAL	V	01-20463	8	294010
A	48-20482	D	C	TRANSISTOR SILICON	V	01-20463D01	8	294015
A	48-20665	D	A	TRANSISTOR SILICON	V	01-20463D01	8	294020

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 91 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	48-20666	D	A	TRANSISTOR SILICON	V	01-20463D01	8	294025
A	48-29391	B	A	SEMICONDUCTOR DEVICE	V	01-20463D01	8	294030
D	01-20466	D	A	WELDED MODULE ASSY	V	01-20612	7	294100
B	01-20466	DWS	A	TRANSFER COMMAND MODULE	V	01-20466	8	294200
C	14-20467	D	A	INSULATOR XFER COMMAND	V	01-20466	8	294300
C	14-20468	D	A	INSULATOR XFER COMMAND	V	01-20466	8	294400
C	14-20706	D	A	INSULATOR TERMINAL	V	01-20466	8	294410
A	46-20000	D	A	RESISTOR FIXED FILM	V	01-20466D01	8	294415
A	48-20665	C	A	TRANSISTOR SILICON	V	01-20466D01	8	294420
A	01-20612	DPL	B	AGC AMPL & XFER COMMAND	V	01-20612	7	294500
C	01-20614	D	B	TB ASSY T3 T4	V	01-20612	7	294600
C	04-20536		B	XFORMER RF T4 AGC DET	V	01-20614	8	294610
A	11-29509	A	B	INSULATING VARNISH	V	01-20614D01	8	294615
C	24-20535	D	C	XFMR RF DETECTOR T3	V	01-20614	8	294700
C	31-20613	A		TB AGC DETECTOR AMPL T3 T4	V	01-20614	8	294800
	01-20701	D	B	TERMINAL BOARD	V	01-20612	7	294900
D	03-15013		D	SCREW MACHINE-PAN HEAD	V	01-20612	7	294910
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20612D01	7	294915
A	21-20752	D	E	CAPACITOR FIXED CERAMIC	V	01-20612D01	7	294920
A	25-29548	A		FILTER LO PASS-FEED THRU	V	01-20612D01	7	294925
F	27-20603	D	C	CHASSIS ELECTRICAL EQUIP	V	01-20612	7	295000
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20612	7	295010
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20612	7	295015
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20612	7	295020
A	48-20892	B		TRANSISTOR SILICON	V	01-20612D01	7	295025
H	63-26293	C	F	AGC DETECTOR & AMP SCHEM	V	01-20612	7	295100
D	62-20632	D		STATUS RECORD S BAND	V	4600486	6	295200
D	4600487	CD	B	RECEIVER SUBASSY 2RA1	L	4600520	5	295300
J	4600484		B	SUBCHASSIS RECEIVER ASSY	L	4600487	6	295400
A	90302			SURFACE TREATMENT	L	4600484	7	295500
D	01-20511	D	A	RECEIVER SUBASSY 2RA1	V	04600487	6	295510
A	01-20582	DBM		PRESELECTOR	V	01-20511	7	295511
C	20946000		L	S BAND FILTER ASSY FS	V	MOI 01-20582	8	295512
A	20946010			RESONATOR CAP	V	20946000	9	295513
B	20946011			RESONATOR TUBE	V	20946000	9	295514
B	20946013		A	SLEEVE ASSY	V	20946000	9	295515
B	20946014		A	CONDUCTOR	V	C-20946000	9	295516
A	20946015			TUNING SCREW	V	C-20946000	9	295517
A	20946016		A	POST	V	20946000	9	295518
C	20946002		C	COVER	V	20946000	9	295519

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 92 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	20946001		E	HOUSING	V	20946000	9	295520
D	03-15047		B	SCREW MACHINE-FLAT HEAD	V	01-20511	7	295525
A	11-15019	A		TAPE LACING	V	01-20511D01	7	295527
C	15-20707	D	A	COVER MODULE WELL	V	01-20511	7	295530
D	30-20517	D	B	CABLE ASSY ELECT 2RA1	V	01-20511	7	295535
A	03-20898	B	C	FASTENER CONNECTOR	V	30-20517D01	8	295536
D	07-20703	D	B	RKT CONNECTOR MTG 2RA1	V	30-20517	8	295540
A	28-20663	D		CONN PLUGS&RECEPTACLES	V	30-20517	8	295545
D	30-20742	D	A	CABLE ASSY RF	V	30-20517	8	295550
A	30-20897	B	A	CABLE R F SUBMINIATURE	V	30-20742	9	295551
A	37-14143			SLEEVING INSULATION	V	30-20742	9	295552
C	30-20743	D	C	CABLE ASSY RF-W5 W6 W7 W	V	30-20517	8	295555
C	30-20745	D	A	CABLE ASSY RF-W2	V	30-20517	8	295560
A	30-20897	B	A	CABLE R F SUBMINIATURE	V	30-20745D01	9	295562
C	30-20746	D	C	CABLE ASSY RF-W1	V	01-20511	7	295565
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20511	7	295570
D	70-20591	D	A	2113/2295 MC TRANSPONDER	V	01-20511	7	295575
J	01-20551	D	F	47.8 MC IF AMPLIFIER	V	4600487	6	295600
C	01-20550	D	C	TB ASSY T2 & T3	V	01-20551	7	295700
A	11-29509	A	B	INSULATING VARNISH	V	01-20550D01	8	295710
C	24-26312	C	B	TRANSFORMER RF	V	01-20550	8	295800
C	24-26314	C	B	COIL RF L1	V	01-20550	8	295900
D	31-20549	D	B	TB 47.8 IF AMPLIFIER	V	01-20550	8	296000
A	01-20551	DPL	D	47.8 IF AMPLIFIER	V	01-20551	7	296100
C	01-20636	D	B	TERMINAL BOARD ASSY T4	V	01-20551	7	296200
C	24-26315	C	C	XFMR RF T4 47.8 IF AMPL	V	01-20636	8	296300
C	31-20637	D	B	TB T4 47.8 MC IF AMPL	V	01-20636	8	296400
C	01-20648	D	E	TB ASSY-47.8	V	01-20551	7	296500
D	31-20647	D	B	TERMINAL BOARD	V	01-20648	8	296600
A	48-29391	B	A	SEMICONDUCTOR DEVICE	V	01-20648D01	8	296610
C	01-26313	C	C	TB1 ASSY 47.8 IF AMPL	V	01-20551	7	296700
A	11-29509	A	B	INSULATING VARNISH	V	01-26313D01	8	296710
C	24-26312	C	B	TRANSFORMER RF	V	01-26313	8	296800
C	31-26316	C	A	TB T1 47.8 IF AMPL	V	01-26313	8	296900
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20551D01	7	296910
A	25-29548	A		FILTER LO PASS-FEED-THRU	V	01-20551D01	7	296915
F	27-20547	D	C	CHASSIS ELECT EQUIPMENT	V	01-20551	7	297000
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20551	7	297010
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20551	7	297012
A	48-20892	B		TRANSISTOR SILICON	V	01-20551D01	7	297015

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 93 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL.	SEQUENCE NUMBER
H	63-20616	D	C	47.8 IF AMPL SCHEM	V	01-20551	7	297100
D	01-20572	D	H	MIXER PREAMPLIFIER	V	4600487	6	297200
C	01-20548	D	B	TB ASSY MIXER PREAMP	V	01-20572	7	297300
A	11-29509	A	B	INSULATING VARNISH	V	01-20548D01	8	297310
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20548D01	8	297315
C	24-26864	B	D	TRANSFORMER RADIO FREQ	V	01-20548	8	297320
D	31-20598	D	A	TB MIXER PREAMPLIFIER	V	01-20548	8	297400
A	01-20572	DPL	B	MIXER PREAMPLIFIER	V	01-20572	7	297500
F	01-20662	D	C	MIXER CAVITY ASSY	V	01-20572	7	297600
B	01-20662	DLM	C	MIXER CAVITY ASSY	V	01-20662	8	297700
C	04-26301	C	B	WASHER GROUND PLANE	V	01-20662	8	297800
C	14-26305	C	B	INSULATOR TERMINAL	V	01-20662	8	297900
D	14-26306	C	B	INSULATOR CB MIX CAVITY	V	01-20662	8	298000
D	14-26307	C	C	INSULATOR CB MIX CAVITY	V	01-20662	8	298100
C	14-26308	C	C	INSULATOR CB MIXR CAVITY	V	01-20662	8	298200
E	15-26297	C	C	HOUSING MIXER CAVITY	V	01-20662	8	298300
F	15-26298	C	C	COVER TOP MIXER CAVITY	V	01-20662	8	298400
D	15-26299	C	B	COVER BOT MIXER CAVITY	V	01-20662	8	298500
C	29-26303	C	B	PIN FEED THRU-MIX CAVITY	V	01-20662	8	298600
C	38-26300	C	B	PLUG CRYSTAL MOUNTING	V	01-20662	8	298700
A	48-20754	D	B	SEMICONDUCTOR DEVICE	V	01-20662D01	8	298710
A	48-20755	D	A	SEMICONDUCTOR DEVICE	V	01-20662D01	8	298715
D	84-26310	C	B	CB IF NETWORK MIX CAVITY	V	01-20662	8	298800
C	29-26304	C	B	TERMINAL MIXER CAVITY	V	84-26310	9	298900
D	84-26318	C	B	CB HYBRID RING MIX CAVTY	V	01-20662	8	299000
F	84-26320	C	B	CB RF NETWORK MIX CAVITY	V	01-20662	8	299100
C	89-26309	C	B	PCB MASTER I F NETWORK	V	01-20662	8	299200
C	89-26317	C	B	PCB MASTER HYBRID RING	V	01-20662	8	299300
C	89-26319	C	B	PCB MASTER R F NETWORK	V	01-20662	8	299400
C	39-26302	C	B	CONTACT CRYSTAL MIXER	V	84-26320	9	299500
C	11-22688	A	B	ADHESIVE CONDUCTIVE	V	01-20572	7	299510
C	11-22693	A	C	INSTL COMPOUND ELECT	V	01-20572	7	299520
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20572D01	7	299525
C	24-26865	B	C	COIL RADIO FREQ	V	01-20572	7	299530
A	25-29548	A		FILTER LO PASS-FEED-THRU	V	01-20572D01	7	299540
F	27-20599	D	D	CHASSIS ELECT EQUIPMENT	V	01-20572	7	299600
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20572	7	299615
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20572	7	299620
A	48-29453	B	A	TRANSISTOR SILICON NPN	V	01-20572D01	7	299625
F	63-20563	D	H	MIXER-PREAMPL SCHEMATIC	V	01-20572	7	299700

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 94 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL.	SEQUENCE NUMBER
D	01-20573	D	G	AMPLIFIER IF-9.56 MC	V	4600487	6	299800
C	01-20569	D	B	TB ASSY T1 & T2	V	01-20573	7	299900
A	11-29509	A	B	INSULATING VARNISH	V	01-20569D01	8	299910
C	24-20560	D	C	XFMR RADIO FREQ	V	01-20569	8	300000
C	31-20543	D	A	TB T1&T2 9.56 MC IF AMPL	V	01-20569	8	300100
C	31-20543	D	B	TB T1&T2 9.56 MC IF AMPL	V	01-20569	8	300200
C	01-20570	D	C	TB ASSY T3 & T4	V	01-20573	7	300300
A	11-29509	A	B	INSULATING VARNISH	V	01-20570D01	8	300310
C	24-20497	D	B	XFMR RADIO FREQUENCY T3	V	01-20570	8	300400
C	24-20561	D	C	XFMR RADIO FREQ T4 & T5	V	01-20570	8	300500
C	31-20544	D	B	TB T3&T4 9.56 MC IF AMPL	V	01-20570	8	300600
C	01-20571	D	D	TB ASSY T5 & T6	V	01-20573	7	300700
A	11-29509	A	B	INSULATING VARNISH	V	01-20571D01	8	300710
C	24-20561	D	C	XFMR RADIO FREQ T4 & T5	V	01-20571	8	300800
C	24-20562	D	C	XFMR RADIO FREQUENCY T6	V	01-20571	8	300900
C	31-20545	D	C	TB T5 & T6 9.56 IF AMPL	V	01-20571	8	301000
A	01-20573	DPL	B	9.56 MC IF	V	01-20573	7	301100
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20573D01	7	301110
A	21-20752	D	E	CAPACITOR FIXED CERAMIC	V	01-20573D01	7	301115
A	25-20748	D	A	FILTER BANDPASS	V	01-20573D01	7	301120
F	27-20542	D	C	CHASSIS ELECT EQUIPMENT	V	01-20573	7	301200
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20573	7	301210
A	48-20892	B		TRANSISTOR SILICON	V	01-20573D01	7	301215
A	48-29391	B	A	SEMICONDUCTOR DEVICE	V	01-20573D01	7	301220
F	63-20558	D	D	AMPL IF-9.56MC SCHEM	V	01-20573	7	301300
F	01-20678	D	A	MIXER PREAMPLIFIER	V	4600487	7	301400
B	01-20678	DLM	A	MIXER PREAMP LOW PROFILE	V	01-20678	8	301500
D	14-20765	D	A	INSULATOR CB MIXR PREAMP	V	01-20678	8	301600
C	14-20826	D	A	INSULATOR CB MIXER	V	01-20678	8	301700
E	15-20761	D	A	HOUSING	V	01-20678	8	301800
D	15-20762	D	A	COVER TOP MIXER HOUSING	V	01-20678	8	301900
C	64-20749	D	A	STRIP CONDUCTOR	V	01-20678	8	302000
D	84-20763	D	A	CB RF NETWORK MIXER	V	01-20678	8	302100
C	84-20764	D	A	CB HYBRID RING MIXER	V	01-20678	8	302200
C	84-20828	D	A	CB IF NETWORK MIX PREAMP	V	01-20678	8	302300
D	4600499	CD	C	TAPE MACHINE 16A1	L	4600520	5	302400
B	90433			SURFACE TREATMENT	L	4600499	6	302500
D	4600576		A	SURFACE TEMP XDUCERS	L	4600499	6	302600
A	1738P-1	PL	BD	5X106 BIT RECORDER	V	4600499	6	302700
C	1738-1		P	MAIN ASSY FLIGHT MODLES	V	1738P-1	7	302800

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 95 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	1738-4		K	EL ASSY 5X10 BIT RECORDR	V	1738-1	8	302900
A	1360-2	-19	B	LUG SOLDERING	V	1738-4	9	303000
A	1360-33		B	CLAMP CABLE	V	1738-4	9	303100
B	1738-12		E	TERMINAL BOARD ASSY	V	1738-4	9	303200
A	1360-2	-63	A	TERMINAL	V	1738-12	10	303300
A	1360-2	-64		TERMINAL	V	1738-12	10	303400
B	1738-187		G	TERMINAL BOARD	V	1738-12	10	303500
A	1738-225			INSULATING SHEET	V	1738-12	10	303600
B	1738-23			MODULE ASSY PWR DECOPLNG	V	1738-4	9	303700
C	1738-71			POWER DECOUPLING SCHEM	V	1738-23	10	303800
C	1738-71			POWER DECOUPLING SCHEM	V	TIN 484646	10	303900
C	1738-24		E	HARNESS ASSEMBLY	V	1738-4	9	304000
B	1738-26		F	CONNECTOR PLATE WIR ASSY	V	1738-24	10	304100
B	1360-96			THERMOFIT-RNF	V	1738-26	11	304110
C	1738-31		B	ASSY CONNECTOR	V	1738-26	11	304120
B	1738-109			SURFACE TEMP TRANSDUCER	V	1738-4	9	304200
C	1738-168		A	PLAYBACK PREAMPL MOD ASY	V	1738-4	9	304300
A	1738-183		D	STAND-OFF TERMINAL BOARD	V	1738-4	9	304400
A	1738-183	-1	D	STAND-OFF TERMINAL BOARD	V	1738-183	10	304500
A	1738-183	-2	D	STAND-OFF TERMINAL BOARD	V	1738-183	10	304600
C	1738-189		F	TEMP XDUCER BRACKET	V	1738-4	9	304700
A	1738-204			BUSHING INSULATING	V	1738-4	9	304800
A	1738-204	-1		BUSHING INSUL	V	1738-204	10	304900
A	1738-204	-2		BUSHING INSUL	V	1738-204	10	305000
A	1738-205			INSULATOR	V	1738-4	9	305100
A	1738-206		A	INSULATOR	V	1738-4	9	305200
A	1738-235			PAN HEAD MACHINE SCREW	V	1738-4	9	305300
A	1738-238			PAN HEAD MACHINE SCREW	V	1738-4	9	305400
A	1738-243			PAN HEAD MACHINE SCREW	V	1738-4	9	305500
A	1738-244			PAN HEAD MACHINE SCREW	V	1738-4	9	305600
A	1738-256			NUT HEX 3/16 ACROSS FLAT	V	1738-4	9	305700
A	1738-257			NUT HEX 1/4 ACROSS FLATS	V	1738-4	9	305800
A	1738-258			#2 FLAT WASHER	V	1738-4	9	305900
A	1738-260			#4 FLAT WASHER	V	1738-4	9	306000
A	1738-274			#4-40 X 5/16 FLAT HEAD	V	1738-4	9	306100
A	1738-275			CABLE SUPPORT	V	1738-4	9	306200
A	1738-201		B	WASHER-VENT PLUG	V	1738-1	8	306300
A	1738-202		B	VENT SEAL	V	1738-1	8	306400
C	1738-141		R	COVER BOTTOM	V	1738-1	8	306500
C	1738-142		U	COVER TOP	V	1738-1	8	306600

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 96 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	1738-194		A	SHIM CASE	V	1738-1	8	306700
A	1738-195			CORNER SHIM CASE	V	1738-1	8	306800
A	1738-262		A	SET SCREW	V	1738-1	8	306900
A	1738-263		A	#4 FLAT WASHER	V	1738-1	8	307000
A	1738-264			#6 FLAT WASHER	V	1738-1	8	307100
A	1738-269			MICRO NUT	V	1738-1	8	307200
A	1738-270			STUD	V	1738-1	8	307300
A	1738-271			#4 HELICAL SPLIT LOCK	V	1738-1	8	307400
A	1738-272		A	#6 HELICAL SPLIT LOCK	V	1738-1	8	307500
D	1738-3		W	MECHANICAL ASSY 5X10 BIT	V	1738P-1	7	307600
D	4801602			XDUCER TRANSPORT PRESS	L	D1738-3	8	307700
A	1360-2	-19	B	LUG SOLDERING	V	1738-3	8	307800
A	1360-2	-66		SOLDER LUG	V	1738-3	8	307900
A	1360-33		B	CLAMP CABLE	V	1738-3	8	308000
A	1738P-2		K	5X106 BIT RECORDER SCHEM	V	1738-3	8	308100
D	1738-50		B	RECORD HEAD DR SCHEM	V	1738-60	9	308200
D	1738-51		A	RECORD TRACK SW SCHEM	V	1738-50	9	308300
D	1738-51		A	RECORD TRACK SW SCHEM	V	TIN 479532	9	308400
D	1738-51		A	RECORD TRACK SW SCHEM	V	TIN 479533	9	308500
A	1738-52			IP SWITCH SCHEMATIC	V	1738P-2	9	308600
B	1738-53		A	TIME DELAY CKT SCHEMATIC	V	1738-64	9	308700
B	1738-54		A	PLAYBACK TRACK SW SCHEM	V	1738-55	9	308800
C	1738-55		B	DIFFERENTIAL AMP SCHEM	V	TIN 505537	9	308900
C	1738-56		B	DATA DETECTOR SCHEMATIC	V	1738-64	9	309000
C	1738-56		B	DATA DETECTOR SCHEMATIC	V	TIN 505551	9	309100
B	1738-57			GATED INTEG MON SCHEM	V	1758-75	9	309200
B	1738-58			PLAYBACK AMPL MON SCHEM	V	1738-67	9	309300
B	1738-59			I/P SWITCH SCHEMATIC	V	1738P-2	9	309400
C	1738-60		E	RECORD COMMAND CKT SCHEM	V	1738-64	9	309500
C	1738-61		C	CHAN CHANGE CKT SCHEM	V	TIN 484651	9	309600
C	1738-62		A	PEAK DETECTOR SCHEM	V	1738-64	9	309700
C	1738-62		A	PEAK DETECTOR SCHEM	V	TIN 505551	9	309800
B	1738-63		A	RZ TO FREQ DOUBLE SCHEM	V	1738-64	9	309900
J	1738-64		G	VIDEO TAPE RECORDER	V	1738P-2	9	310000
C	1738-61		C	CHAN CHANGE CKT SCHEM	V	1738-64	9	310100
C	1738-65		C	VOLTAGE CONT OSC SCHEM	V	1738-64	9	310200
C	1738-65		C	VOLTAGE CONT OSC SCHEM	V	TIN 479597	9	310300
D	1738-66		A	DIFFERENTIATOR SCHEMATIC	V	1738-67	9	310400
D	1738-66		A	DIFFERENTIATOR SCHEMATIC	V	TIN 479576	9	310500
C	1738-67		B	MAIN PLAYBACK AMPL SCHEM	V	1738-54	9	310600

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 97 DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	1738-68			DIFF PRE-AMP SCHEMATIC	V	TIN 505537	9	310700
D	1738-70		D	END OF TAPE SENSOR SCHEM	V	1738-64	9	310800
D	1738-70		D	END OF TAPE SENSOR SCHEM	V	TIN 505544	9	310900
D	1738-72		D	AMPL SCHEM PLAYBACK	V	1738-73	9	311000
D	1738-72		D	AMPL SCHEM PLAYBACK	V	TIN 484620	9	311100
D	1738-73		C	PLAYBACK MOTOR SUPP REG	V	1738-64	9	311200
A	1738-74		A	FULL WAVE DIFF SCHEM	V	1738P-2	9	311300
D	1738-75		C	PHASE COMPARATOR SCHEM	V	1738-64	9	311400
J	1738-76		D	VIDEO TAPE RECORDER	V	1738P-2	9	311500
A	1738-77			CONVERSION TO FREQ	V	1738P-2	9	311600
B	1738-78		A	PLAYBACK AMPL BLOCK DIAG	V	TIN 479546	9	311700
B	1738-79			PLAYBACK SIG PEAK DETECT	V	1738P-2	9	311800
B	1738-80			NRZ RESTORATION PLAYBACK	V	1738P-2	9	311900
C	1738-81			HYBRID ONE-SHOT BLK DIAG	V	1738P-2	9	312000
A	1738-82			PHASE-LOCKED-LOOP	V	1738P-2	9	312100
C	1738-83			OUT OF LOCK DETECTOR	V	1738P-2	9	312200
D	1738-85			SCHEM VIDEO TAPE RECORD	V	1738P-2	9	312300
D	1738-87			VIDEO TAPE RECORDER-LNCH	V	1738P-2	9	312400
D	1738-88			RELAY DREDELAYED MCNC	V	TIN 479526	9	312500
C	1738-89			DIAG ELECT SCHEM	V	1738P-2	9	312600
C	1738-90			DIAG ELECT SCHEM	V	1738P-2	9	312700
C	1738-91			DIAG ELECT SCHEM	V	1738P-2	9	312800
C	1738-92			DIAG ELECT SCHEM L SPEED	V	1738P-2	9	312900
D	1738-93			COUNT 2 & STOP CKTS	V	TIN 484651	9	313000
C	1738-545			CONSOLE HARNESS	V	1738P-2	9	313100
J	1738-546			VIDEO TAPE RECORDER	V	1738P-2	9	313200
D	1738-2		L	TRANSPORT WIRING DIAG	V	1738-3	8	313300
A	1360-21	-24		INTERNAL RING	V	1738-2	9	313400
D	1738-7	-1	K	CAPSTAN ASSEMBLY	V	1738-3	8	313500
A	1360-21	-5		RING-RETAINER	V	1738-7	9	313600
A	1360-21	-25	A	RING-RETAINER	V	1738-7	9	313700
A	1360-59		A	SPACER SHAFT	V	1738-7	9	313800
B	1738-105		H	SEPARATOR BEARING	V	1738-7	9	313900
A	1738-105	-1	H	SEPARATOR BEARING	V	1738-105	10	314000
A	1738-105	-2	H	SEPARATOR BEARING	V	1738-105	10	314100
A	1738-105	-3	H	SEPARATOR BEARING	V	1738-105	10	314200
A	1738-105	-4	H	SEPARATOR BEARING	V	1738-105	10	314300
C	1738-106		H	HOUSING BEARING	V	1738-7	9	314400
A	1738-106	-1	H	HOUSING BEARING	V	1738-106	10	314500
A	1738-106	-2	H	HOUSING BEARING	V	1738-106	10	314600

JPL 3367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 98 DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	1738-106	-3	H	HOUSING BEARING	V	1738-106	10	314700
B	1738-107		G	SPACER	V	1738-7	9	314800
A	1738-107	-1	G	SPACER	V	1738-107	10	314900
A	1738-107	-2	G	SPACER	V	1738-107	10	315000
A	1738-107	-3	G	SPACER	V	1738-107	10	315100
A	1738-107	-4	G	SPACER	V	1738-107	10	315200
A	1738-107	-5	G	SPACER	V	1738-107	10	315300
A	1738-107	-6	G	SPACER	V	1738-107	10	315400
A	1738-108		A	KEY	V	1738-7	9	315500
B	1738-110			CAPSTAN SHAFT&WASHER ASY	V	1738-7	9	315600
A	1738-119		B	WASHER CAPSTAN	V	1738-110	10	315700
B	1738-133		K	SHAFT CAPSTAN	V	1738-110	10	315800
B	1738-111		D	FLYWHEEL	V	1738-7	9	315900
A	1738-112		E	RETAINER BEARING	V	1738-7	9	316000
A	1738-113		F	RETAINER BEARING	V	1738-7	9	316100
B	1738-114		B	PULLEY CAPSTAN COUPLING	V	1738-7	9	316200
A	1738-114	-1	B	PULLEY CAPSTAN COUPL ASY	V	1738-114	10	316300
A	1738-114	-2	B	PULLEY CAPSTAN COUPL ASY	V	1738-114	10	316400
A	1738-121			INSERT-CLUTCH	V	1738-114	10	316500
B	1738-122		J	PULLEY CAPSTAN COUPLING	V	1738-114	10	316600
B	1738-115		C	SPRING CLUTCH	V	1738-7	9	316700
C	1738-116		F	PULLEY CAPSTAN INPUT	V	1738-7	9	316800
A	1738-117		D	RETAINER BEARING	V	1738-7	9	316900
A	1738-118		A	WASHER FLAT	V	1738-7	9	317000
A	1738-118	-1	A	WASHER FLAT	V	1738-118	10	317100
A	1738-118	-2	A	WASHER FLAT	V	1738-118	10	317200
B	1738-123		D	CLEAT-MODULE	V	1738-7	9	317300
A	1738-229			FLAT HEAD MACHINE SCREW	V	1738-7	9	317400
A	1738-241			PAN HEAD MACHINE SCREW	V	1738-7	9	317500
A	1738-244			PAN HEAD MACHINE SCREW	V	1738-7	9	317600
D	1738-7	-2	J	CAPSTAN ASSY DOWN STREAM	V	1738-3-1	8	317610
D	1738-8		G	ISI IDLER ASSY	V	1738-3	8	317700
A	1360-21	-5		RING-RETAINER	V	1738-8	9	317800
	1738-105		H	SEPARATOR BEARING	V	1738-8	9	317900
C	1738-106		H	HOUSING BEARING	V	1738-8	9	318000
B	1738-107		G	SPACER	V	1738-8	9	318100
A	1738-108		A	KEY	V	1738-8	9	318200
A	1738-112		E	RETAINER BEARING	V	1738-8	9	318300
A	1738-118		A	WASHER FLAT	V	1738-8	9	318400
B	1738-123		D	CLEAT-MODULE	V	1738-8	9	318500

JPL 3367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 99 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	1738-124		G	RETAINER-BEARING	V	1738-8	9	318600
B	1738-127		E	PULLEY IDLER	V	1738-8	9	318700
A	1738-127	-1	E	PULLEY IDLER	V	1738-127	10	318800
A	1738-127	-2	E	PULLEY IDLER	V	1738-127	10	318900
B	1738-131		C	SHAFT-FIRST IDLER	V	1738-8	9	319000
A	1738-229			FLAT HEAD MACHINE SCREW	V	1738-8	9	319100
A	1738-231			FLAT HEAD MACHINE SCREW	V	1738-8	9	319200
A	2500-75	-1P	B	BALL BEARING - RADIAL	V	1738-8	9	319300
C	1738-9		E	2 IDLER ASSY PLAYBACK	V	1738-3	8	319400
A	1360-21	-5		RING-RETAINER	V	1738-9	9	319500
B	1738-105		H	SEPARATOR BEARING	V	1738-9	9	319600
C	1738-106		H	HOUSING BEARING	V	1738-9	9	319700
B	1738-107		G	SPACER	V	1738-9	9	319800
A	1738-108		A	KEY	V	1738-9	9	319900
A	1738-113		F	RETAINER BEARING	V	1738-9	9	320000
A	1738-118		A	WASHER FLAT	V	1738-9	9	320100
B	1738-123		D	CLEAT-MODULE	V	1738-9	9	320200
A	1738-124		G	RETAINER-BEARING	V	1738-9	9	320300
B	1738-127		E	PULLEY IDLER	V	1738-9	9	320400
B	1738-132		H	SHAFT-SECOND IDLER	V	1738-9	9	320500
A	1738-229			FLAT HEAD MACHINE SCREW	V	1738-9	9	320600
A	1738-231			FLAT HEAD MACHINE SCREW	V	1738-9	9	320700
A	1738-235			PAN HEAD MACHINE SCREW	V	1738-9	9	320800
A	2500-75-1P		B	BALL BEARING-RADIAL	V	1738-9	9	320900
D	1738-11		Q	ASSY-TAPE REEL	V	1738-3	8	321000
B	1738-129		D	BEARING SEPARATORS TAPE	V	1738-11	9	321100
A	1738-144		G	TAPE ROLLER	V	1738-11	9	321200
B	1738-145		C	BEARING RETAINER-TAPE	V	1738-11	9	321300
B	1738-146		D	PLATE TAPE REEL	V	1738-11	9	321400
B	1738-147		H	SUPPORT HUB	V	1738-11	9	321500
B	1738-148		B	SHIM REEL MOUNTING	V	1738-11	9	321600
B	1738-149		B	SHAFT TAPE REEL	V	1738-11	9	321700
C	1738-150		F	COLLAR BEVELED REEL	V	1738-11	9	321800
D	1738-151		H	PLATE TAPE REEL	V	1738-11	9	321900
D	1738-152		E	RING TAPE REEL	V	1738-11	9	322000
B	1738-154		E	BEARING RETAINER-TAPE	V	1738-11	9	322100
A	1738-159			WASHER FLAT TAPE REEL	V	1738-11	9	322200
A	1738-160			PRECISION WASHER TAPE	V	1738-11	9	322300
A	1738-163		B	PIN TAPE REEL	V	1738-11	9	322400
C	1738-199		E	HUB - TAPE REEL	V	1738-11	9	322500

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 100 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	1738-224			WASHER-SHIM	V	1738-11	9	322600
A	1738-227			SOCKET SET SCREW	V	1738-11	9	322700
A	1738-231			FLAT HEAD MACHINE SCREW	V	1738-11	9	322800
A	1738-232		A	FIL HEAD MACHINE SCREW	V	1738-11	9	322900
A	1738-234			FLAT HEAD MACHINE SCREW	V	1738-11	9	323000
A	1738-240			FLAT HEAD MACHINE SCREW	V	1738-11	9	323100
A	1738-243			PAN HEAD MACHINE SCREW	V	1738-11	9	323200
A	1738-248			SOC HEAD CAP SCREW	V	1738-11	9	323300
A	1738-249			SOC HEAD CAP SCREW	V	1738-11	9	323400
A	1738-260			#4 FLAT WASHER	V	1738-11	9	323500
A	1738-278			SPLICING TAPE	V	1738-11	9	323600
A	1738-279			CONDUCTIVE TAPE	V	1738-11	9	323700
A	2500-88	-1Q		BALL BEARING - RADIAL	V	1738-11	9	323800
B	1738-13		G	PRESSURE BELT PULLEY ASY	V	1738-3	8	323900
A	1738-118		A	WASHER FLAT	V	1738-13	9	324000
A	1738-138		D	RETAINER-BEARING	V	1738-13	9	324100
B	1738-139		D	SHAFT PRESS BELT PULLEY	V	1738-13	9	324200
B	1738-140		B	PULLEY PRESSURE BELT	V	1738-13	9	324300
B	1738-156		B	CLEAT	V	1738-13	9	324400
A	1738-166		C	RETAINER BEARING	V	1738-13	9	324500
A	1738-228			FLAT HEAD MACHINE SCREW	V	1738-13	9	324600
A	1738-231			FLAT HEAD MACHINE SCREW	V	1738-13	9	324700
A	1738-235			PAN HEAD MACHINE SCREW	V	1738-13	9	324800
A	1738-258			#2 FLAT WASHER	V	1738-13	9	324900
B	1738-276			CLEAT-PRESSURE ROLLER	V	1738-13	9	325000
A	1738-277			HEX HEAD MACHINE SCREW	V	1738-13	9	325100
A	2500-75	-1P	B	BALL BEARING - RADIAL	V	1738-13	9	325200
B	1738-14		D	TRANSFORMER ASSEMBLY	V	1738-3	8	325300
B	1738-84		C	TRANSFORMER OUTLINE DWG	V	1738-14	9	325400
B	1738-15		E	SENSE GUIDE ASSY	V	1738-3	8	325500
B	1738-16		C	SENSE HEAD SUBASSY	V	1738-15	9	325600
A	1738-176		A	SHAFT SENSE	V	1738-16	10	325700
B	1738-177		A	MANDREL BLANK	V	1738-16	10	325800
B	1738-178		C	BASE SENSE GUIDE	V	1738-15	9	325900
A	1738-179		B	WASHER SENSE	V	1738-15	9	326000
A	1738-256			NUT HEX 3/16 ACROSS FLAT	V	1738-15	9	326100
A	1738-17		B	SUBASSY-CLEAT ISOLATOR	V	1738-3	8	326200
B	1738-157	-2	E	CLEAT ISOLATOR TOP LEFT	V	1738-17	9	326300
A	1738-185		A	BUMPER TOP ISOLATOR	V	1738-17	9	326400
A	1738-18		B	SUBASSY-CLEAT ISOLATOR	V	1738-3	8	326500

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 101 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
B	1738-157	-1	E	CLEAT ISOLATOR TOP RIGHT	V	1738-18	9	326600
A	1738-185		A	BUMPER TOP ISOLATOR	V	1738-18	9	326700
A	1738-19		B	SUBASSY-CLEAT ISOLATOR	V	1738-3	8	326800
B	1738-161	-1	E	CLEAT ISOLATOR BOTTOM R	V	1738-19	9	326900
A	1738-186		A	BUMPER BOTTOM ISOLATOR	V	1738-161	10	327000
A	1738-186		A	BUMPER BOTTOM ISOLATOR	V	1738-19	9	327100
A	1738-20		B	SUBASSY-CLEAT ISOLATOR	V	1738-3	8	327200
B	1738-161	-2	D	CLEAT ISOLATOR BOTTOM L	V	1738-20	9	327300
A	1738-186		A	BUMPER BOTTOM ISOLATOR	V	1738-20	9	327400
A	1738-21		C	PRESSURE PAD ASSY	V	1738-3	8	327500
A	1738-5		A	SPRING WIPER ASSEMBLY	V	1738-21	9	327600
A	1738-180			FELT PAD	V	1738-5	10	327700
A	1738-181		A	WIPER SPRING	V	1738-5	10	327800
B	1738-182		B	HOLDER SPRING WIPER	V	1738-21	9	327900
A	1738-233			PAN HEAD MACHINE SCREW	V	1738-21	9	328000
C	1738-22		D	BUMPER & CASE ASSY	V	1738-3	8	328100
E	1738-167		V	CASE	V	1738-22	9	328200
A	1738-192		A	BUMPER-CASE	V	1738-22	9	328300
A	1738-192	-1	A	BUMPER - CASE	V	1738-192	10	328400
A	1738-25			CLAMP ASSY INSULATING	V	1738-3	8	328500
A	1738-196		B	CLAMP CABLE	V	1738-25	9	328600
A	1738-197			TAPE INSULATING	V	1738-25	9	328700
A	1738-27		B	CLAMP ASSY MOTOR	V	1738-3	8	328800
B	1360-96			THERMOFIT-RNF	V	1738-29	9	328810
A	1738-200		D	CLAMP-RECORD MOTOR	V	1738-27	9	328900
A	1738-32			SHOCK MOUNT&STUD ASSY	V	1738-3	8	329000
C	1738-100		B	PLAYBACK MOTOR	V	1738-3	8	329100
C	1738-101		D	RECORD MOTOR	V	1738-3	8	329200
C	1738-102	-2	D	ALTERNATE RECORD/REPRO	V	1738-3	8	329300
B	1738-130	-1	C	TRANSDUCER-PRESSURE	V	1738-3	8	329400
B	1738-134		D	CLEAT-PLAYBACK MOTOR	V	1738-3	8	329500
B	1738-135		G	MOUNT-PLAYBACK MOTOR	V	1738-3	8	329600
B	1738-136		D	CLEAT-RECORD MOTOR	V	1738-3	8	329700
B	1738-137		J	MOUNT-RECORD MOTOR	V	1738-3	8	329800
B	1738-155		B	PLATE INSULATING	V	1738-3	8	329900
D	1738-158		G	DETAIL-TRANSPORT PLATE	V	1738-3	8	330000
C	1738-164			CASE HEAD SHIELD	V	1738-3	8	330100
B	1738-165			COVER HEAD SHIELD	V	1738-3	8	330200
A	1738-171		C	REINFORCING PLATE	V	1738-3	8	330300
A	1738-172		D	REINFORCING PLATE RH	V	1738-3	8	330400

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 102 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
A	1738-173		D	REINFORCING PLATE LH	V	1738-3	8	330500
B	1738-175		L	BELT-MYLAR	V	1738-3	8	330600
A	1738-175	-1	L	BELT - MYLAR	V	1738-175	9	330700
A	1738-175	-2	L	BELT - MYLAR	V	1738-175	9	330800
A	1738-175	-3	L	BELT - MYLAR	V	1738-175	9	330900
A	1738-175	-4	L	BELT - MYLAR	V	1738-175	9	331000
A	1738-175	-5	L	BELT - MYLAR	V	1738-175	9	331100
A	1738-175	-6	L	BELT - MYLAR	V	1738-175	9	331200
A	1738-191		B	WASHER INSULATING	V	1738-3	8	331300
A	1738-191	-1	B	WASHER	V	1738-191	9	331400
A	1738-191	-2		WASHER	V	1738-191	9	331500
B	1738-193		D	HARNESS BLOCK	V	1738-3	8	331600
A	1360-35	-4		INSERT	V	1738-193	9	331700
B	1738-198		A	MOUNT SHOCK	V	1738-3	8	331800
B	1738-210		A	MOUNTING PLATE BRAKE	V	1738-3	8	331900
C	1738-212		A	TAPE RETAINER-UPPER LEFT	V	1738-3	8	332000
C	1738-213		C	TAPE RETAINER-LOWER LEFT	V	1738-3	8	332100
C	1738-214			TAPE RETAINER-LO RIGHT	V	1738-3	8	332200
A	1738-221		A	PULLEY ASSY-RECORD MOTOR	V	1738-3	8	332300
B	1738-184		E	FLYWHEEL RECORD MOTOR	V	1738-221	9	332400
B	1738-188		G	PULLEY-RECORD MOTOR	V	1738-221	9	332500
A	1738-228			FLAT HEAD MACHINE SCREW	V	1738-221	9	332600
A	1738-226		A	SUPPORT SPACER-TAPE	V	1738-3	8	332700
A	1738-227			SOCKET SET SCREW	V	1738-3	8	332800
A	1738-230			BINDING HEAD MACHINE	V	1738-3	8	332900
A	1738-236			PAN HEAD MACHINE SCREW	V	1738-3	8	333000
A	1738-237			SOCKET HEAD CAP SCREW	V	1738-3	8	333100
A	1738-239			PAN HEAD MACHINE SCREW	V	1738-3	8	333200
A	1738-240			FLAT HEAD MACHINE SCREW	V	1738-3	8	333300
A	1738-242			PAN HEAD MACHINE SCREW	V	1738-3	8	333400
A	1738-245			PAN HEAD MACHINE SCREW	V	1738-3	8	333500
A	1738-246		A	SOC HEAD CAP SCREW	V	1738-3	8	333600
A	1738-250			PAN HEAD MACHINE SCREW	V	1738-3	8	333700
A	1738-251			FLAT HEAD MACHINE SCREW	V	1738-3	8	333800
A	1738-252			PAN HEAD MACHINE SCREW	V	1738-3	8	333900
A	1738-254		A	PAN HEAD MACHINE SCREW	V	1738-3	8	334000
A	1738-255			PAN HEAD MACHINE SCREW	V	1738-3	8	334100
B	1738-265			BRAKE MTG PLATE	V	1738-3	8	334200
A	1738-266			#2-56 MACHINE SCREW	V	1738-3	8	334300
A	1738-267			#1-72 MACHINE SCREW	V	1738-3	8	334400

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 103 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	1738-268			#2-56 MACHINE SCREW	V	1738-3	8	334500
A	1738-280			NUT SHOCK MOUNT	V	1738-3	8	334600
A	1738-281			NUT LOCK WIRE	V	1738-3	8	334700
A	1738-283			#8 FLAT WASHER	V	1738-3	8	334800
A	1738-285			LOCK WIRE SHOCK MOUNT	V	1738-3	8	334900
C	1738-6		J	INSTAL BIT RECORDER-FL	V	4600499	7	335000
B	1738-128		B	BALL BEARING DEEP GROOVE	V	1738P-1	7	335100
C	1738-168	-1	A	PLAYBACK PREAMPL MOD ASY	V	1738P-1	7	335200
A	1738-211			INSUL PLAYBACK PREAMPL	V	1738P-1	7	335300
A	1738-253		B	PAN HEAD MACHINE SCREW	V	1738P-1	7	335400
A	1738-259			#4 FLAT WASHER	V	1738P-1	7	335500
A	1738-261			#6 FLAT WASHER	V	1738P-1	7	335600
C	1738-273			DETAIL-CONNECTOR PLATE	V	1738P-1	7	335700
A	1738-282			STLD-SHOCK MOUNT	V	PL1738-1	7	335800
A	1738-284			#8 HELICAL SPLIT WASHER	V	PL1738-1	7	335900
B	1738-540			BASIC SPECIFICATIONS	V	1738P-1	7	336000
D	1738-544			CONTROL CONSOLE FACADE	V	1738P-1	7	336100
A	1360-37	-11	A	COVER BLANK	V	1738P-1	7	336200
A	1360-36	-12	A	CASE BLANK	V	1738P-1	7	336300
D	4600500	CD	A	TAPE ELECTRONICS 1 16A2	L	4600520	5	336400
A	505580	DL	B	INDEX NUMERICAL	V	4600500	6	336500
A	F-21			CHEMICAL FILMS FOR AL	V	505580	7	336510
A	F-29		D	ICHROMATE TREATMENT	V	505580	7	336520
A	F-35			ELECTROLESS TIN PLATE	V	505580	7	336530
A	F-100			MARKING SYMBOLIZING	V	505580	7	336540
A	F-110			PROT COATING SOLDERABLE	V	505580	7	336550
A	406917		D	SPEC TEST COPPER-CLAD	V	505580	7	336560
A	415028		F	SHEET STEEL	V	505580	7	336565
A	415573		A	SEALING COMPOUND	V	505580	7	336570
A	496600	DL		INDEX NUM RECORDER PTM	V	4600500	6	336600
A	505585	PL	A	5X106 TAPE RECORDER COMP	V	4600500	6	336605
								336610
								336615
A	505599	DL		BACKUP BIT TAPE RECORDER	V	4600500	6	336620
								336625
								336630
A	505579			5X106 BIT TAPE RECORDER	V	4600500	6	336700
D	484649		B	PWR DECOUPLING NETWORK	V	505579	7	336800
	410499		D	INSULATION SLEEVING	V	484649	8	336900
	411140		D	SOLDER	V	484649	8	337000

JPL 1387 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 104 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
	411398		B	WIRE ELECTRICAL	V	484649	8	337100
	411400		H	WIRE ELECTRICAL	V	484649	8	337200
	411402		C	WIRE ELECTRICAL	V	484649	8	337300
A	414796			TRANSIPAD	V	484649	8	337400
A	483333		A	ENCAPSULATION PROCEDURE	V	484649	8	337500
C	484646		A	DIAG ELECT SCHEM	V	484649	8	337600
C	484647			PCB DECOUPLING NET TOP	V	484649	8	337700
A	410018		H	PLASTIC SHEET	V	484647	9	337800
C	484648			PCB PWR DECOUPLING NET	V	484649	8	337900
A	410018		H	PLASTIC SHEET	V	484648	9	338000
A	414741			TERMINAL STUD	V	484648	9	338100
A	484650			MARKING PWR DECOUPLING	V	484649	8	338200
D	505554		B	TAPE RECORDER	V	505579-1	7	338400
D	479529		B	RECORD HEAD DRIVER	V	505554	8	338500
	410499		D	INSULATION SLEEVING	V	479529	9	338600
	411140		D	SOLDER	V	479529	9	338700
	411398		B	WIRE ELECTRICAL	V	479529	9	338800
	411400		H	WIRE ELECTRICAL	V	479529	9	338900
	411402		C	WIRE ELECTRICAL	V	479529	9	339000
	414796			TRANSIPAD	V	479529	9	339100
C	479526		A	DIAGRAM ELECT SCHEM	V	479529	9	339200
C	479527			PCB RECORD HD DRIVER TOP	V	479529	9	339300
A	410018		H	PLASTIC SHEET	V	479527	10	339400
C	479528			PCB RECORD HD DRIVER BOT	V	479529	9	339500
A	410018		H	PLASTIC SHEET	V	479528	10	339600
A	479530			MARKNG RECORD HD DRIVER	V	479529	9	339700
A	483333		A	ENCAPSULATION PROCEDURE	V	479529	9	339800
D	479556			PLAYBACK TCK SW&AMP ASSY	V	505554	8	339900
	411140		D	SOLDER	V	479556	9	340000
D	479546		A	DIAG ELECT SCHEM	V	479556	9	340100
D	479549		A	PLAYBACK TCK SW&MAIN AMP	V	479556	9	340200
D	479546		A	DIAG ELECT SCHEM	V	479549	10	340300
C	479547			PCB PLAYBACK TCK SW TOP	V	479549	10	340400
A	410018		H	PLASTIC SHEET	V	479547	11	340500
	410499		D	INSULATION	V	479547	11	340600
	411140		D	SOLDER	V	479547	11	340700
	411398		B	WIRE ELECTRICAL	V	479547	11	340800
	411400		H	WIRE ELECTRICAL	V	479547	11	340900
	410499		D	INSULATION SLEEVING	V	479594	9	341000
	411402		C	WIRE ELECTRICAL	V	479547	11	341100

JPL 1387 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 105 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	414796			TRANSIPAD	V	479547	11	341200
D	479546		A	DIAGRAM ELECT SCHEM	V	479547	11	341300
C	479548			PCB PLAYBACK TCK SW BOT	V	479549	10	341400
A	410018		H	PLASTIC SHEET	V	479548	11	341500
A	479550			MARKNG PLAYBACK TCK SW	V	479556	9	341600
C	496604		A	CASE MOD PLAYBACK TCK SW	V	479556	9	341700
A	414741			TERMINAL STUD SPLIT	V	496604	10	341800
B	496605			INSULATOR MODULE	V	479556	9	341900
	415825			PLASTIC SHEET TEFLON	V	496605	10	342000
B	505527			INSULATION SHEET	V	479556	9	342100
D	479569		A	PLAYBACK AMPL MONEPK DET	V	505554	8	342200
	410499		D	INSULATION SLEEVING	V	479569	9	342300
	411398		B	WIRE ELECTRICAL	V	479569	9	342400
	411400		H	WIRE ELECTRICAL	V	479569	9	342500
	411400		H	SOLDER	V	479569	9	342600
	411402		C	WIRE ELECTRICAL	V	479569	9	342700
A	414796			TRANSIPAD	V	479569	9	342800
C	479566		A	DIAG ELECT SCHEM	V	479569	9	342900
C	479567			PCB TOP	V	479569	9	343000
A	410018		H	PLASTIC SHEET	V	479567	10	343100
C	479568			PCB BOT	V	479569	9	343200
A	410018		H	PLASTIC SHEET	V	479568	10	343300
A	479570			MARKING PLAYBACK AMPL	V	479569	9	343400
A	483333		A	ENCAPSULATION PROCEDURE	V	479569	9	343500
D	479586			DIFFERENTIATOR ASSEMBLY	V	505554	8	343600
A	411554		E	INSULATOR BUSHING	V	479586	9	343700
C	479576		A	DIAG ELECT SCHEM DIFF	V	479586	9	343800
D	479579		A	DIFFERENTIATOR SUBASSY	V	479586	9	343900
	410499		D	INSULATION SLEEVING	V	479579	10	344000
	411398		B	WIRE ELECTRICAL	V	479579	10	344100
	411400		H	WIRE ELECTRICAL	V	479579	10	344200
	411402		C	WIRE ELECTRICAL	V	479579	10	344300
A	414796			TRANSIPAD	V	479579	10	344400
C	479576		A	DIAG ELECT SCHEM DIFF	V	479579	10	344500
C	479577			PCB DIFF MODULE TOP	V	479579	10	344600
A	410018		H	PLASTIC SHEET	V	479577	11	344700
C	479578			PCB DIFF MODULE BOT	V	479579	10	344800
A	410018		H	PLASTIC SHEET	V	479578	11	344900
A	414741			TERMINAL STUD SPLIT	V	479578	11	345000
A	479580			MARKING DIFFERENTIATOR	V	479586	9	345100

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 106 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	496606		A	COVER MODIFIED DIFF	V	479586	9	345200
A	414741			TERMINAL STUD SPLIT	V	496606	10	345300
B	496607		A	CASE DIFF MODIFIED	V	479586	9	345400
	411140		D	SOLDER	V	496607	10	345500
C	479576		A	DIAGRAM ELECTRONIC SCHEM	V	496607	10	345600
A	479580			MARKING DIFFERENTIATOR	V	496607	10	345700
B	505528			INSULATION SHEET	V	496607	10	345800
B	505528			INS SH DIFFERENTIATOR	V	479586	9	345900
D	479594		A	PHASE COMPAREGATED INTEG	V	505554	8	346000
	411398		B	WIRE ELECTRICAL	V	479594	9	346100
	411400		H	WIRE ELECTRICAL	V	479594	9	346200
	411402		C	WIRE ELECTRICAL	V	479594	9	346300
A	414796			TRANSIPAD	V	479594	9	346400
D	479591		A	DIAG ELECT SCHEM	V	479594	9	346500
C	479592			PCB COMPAREGATED INT TOP	V	479594	9	346600
A	410018		H	PLASTIC SHEET	V	479592	10	346700
D	479591		A	DIAGRAM ELECT SCHEM	V	479592	10	346800
A	479595			MARKNG COMPAREGATED INT	V	479592	10	346900
C	479593			PCB COMPAREGATED INT BOT	V	479594	9	347000
A	410018		H	PLASTIC SHEET	V	479593	10	347100
A	479595			MARKING PHASE COMPARATOR	V	479594	9	347200
A	483333		A	ENCAPSULATION PROCEDURE	V	479594	9	347300
A	484611		B	WIRING LIST PT TO PT	V	505554	8	347400
D	484625			SUBCHAS TAPE EL #1 16A2	V	505554	8	347500
A	492201			SURFACE TREATMENT	V	484625	9	347700
C	505555			MARKING SUBCHAS TAPE EL1	V	484625	9	347800
C	484634		A	PRINTED CIRCUIT BOARD	V	505554	8	347900
	410432		D	PLASTIC SHEET	V	484634	9	348000
A	414741			TERMINAL STUD SPLIT	V	484634	9	348100
A	484611	WL	B	PT-TO-PT TAPE ELECT #1	V	484634	9	348110
C	492007			HI SPEED 4 E 2 NAND GATE	V	484634	9	348120
C	492006			SCHEMATIC 4E2 NAND GATE	V	492009	10	348130
C	492007			PCB HI SPEED 4E2 INPUT	V	492009	10	348134
C	492008			PCB HI SPEED 4E2 INPUT	V	492009	10	348136
A	492010			MARKING 4 E 2 NAND GATE	V	492009	10	348140
D	505534		A	TIME DELAY #2	V	505554	8	348200
	410499		D	INSULATION SLEEVING	V	505534	9	348300
	411140		D	SOLDER	V	505534	9	348400
	411398		B	WIRE ELECTRICAL	V	505534	9	348500
	411400		H	WIRE ELECTRICAL	V	505534	9	348600

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 107 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
	411402		C	WIRE ELECTRICAL	V	505534	9	348700
A	414796			TRANSIPAD	V	505534	9	348800
A	483333		A	ENCAPSULATION PROCEDURE	V	505534	9	348900
D	505531		A	DIAG ELECT SCHEM	V	505534	9	349000
C	505532			PCB TIME DELAY #2 TOP	V	505534	9	349100
A	410018		H	PLASTIC SHEET	V	505532	10	349200
C	505533			PCB TIME DELAY #2 BOT	V	505534	9	349300
A	410018		H	PLASTIC SHEET	V	505533	10	349400
A	505535			MARKING TIME DELAY 2	V	505534	9	349500
D	505551		C	DIAG ELECT SCHEM TAPE	V	505554	8	349600
C	505553		A	PCB TAPE RECORDER ELECT	V	505554	8	349700
	410432		D	PLASTIC SHEET	V	505553	9	349800
A	414741			TERMINAL STUD SPLIT	V	505553	9	349900
A	505556			WIRING LIST PT TO PT	V	505553	9	350000
A	505556			WIRING LIST PT TO PT	V	505554	8	350100
J	4600524		B	CHASSIS RECEIVR & TAPE	L	4600520	5	350200
J	4901046		C	CHASSIS BASIC ASSY	L	4600524	6	350300
A	90433			SURFACE TREATMENT	L	4901046	7	350400
J	4901107		E	TRANSDUCER TEMPERATURE	L	4600524	6	350500
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4901107	7	350600
B	4800078		B	CLAMP WIRE	L	4901107	7	350700
B	4901137		A	GROMMET TEFLON	L	4901107	7	350800
D	4901158		A	SCREW MACHINE PAN HEAD	L	4901107	7	350900
D	4600526	CD	A	TAPE ELECTRONICS 2 16A3	L	4600520	5	351000
B	90433			SURFACE TREATMENT	L	4600526	6	351100
A	505579			5X106 BIT TAPE RECORDER	V	4600526	6	351200
D	484649		B	PWR DECOUPLING NETWORK	V	505579	7	351300
	410499		D	INSULATION SLEEVING	V	484649	8	351400
	411140		D	SOLDER	V	484649	8	351500
	411398		B	WIRE ELECTRICAL	V	484649	8	351600
	411400		H	WIRE ELECTRICAL	V	484649	8	351700
	411402		C	WIRE ELECTRICAL	V	484649	8	351800
A	414796			TRANSIPAD	V	484649	8	351900
A	483333		A	ENCAPSULATION PROCEDURE	V	484649	8	352000
C	484646		A	DIAG ELECT SCHEM	V	484649	8	352100
C	484647			PCB DECOUPLING NET TOP	V	484649	8	352200
A	410018		H	PLASTIC SHEET	V	484647	9	352300
C	484648			PCB PWR DECOUPLING NET	V	484649	8	352400
A	410018		H	PLASTIC SHEET	V	484648	9	352500
A	414741			TERMINAL STUD	V	484648	9	352600

JPL 1287 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 108 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	484650			MARKING PWR DECOUPLING	V	484649	8	352700
C	484657		A	FLOW CHART TAPE RECORDER	V	505579	7	352800
D	505565		C	TAPE RECORDER ELECTRONIC	V	505579-1	7	352900
A	410169		D	INS SLEEVING HEAT SHRINK	V	505565	8	353000
	410499		D	INSULATION SLEEVING	V	505565	8	353100
	411027			WASHER FLAT #6	V	505565	8	353200
	411081			SCREW MACHINE PAN HEAD	V	505565	8	353300
	411140		D	SOLDER	V	505565	8	353400
	411398		B	WIRE ELECTRICAL	V	505565	8	353500
	411400		H	WIRE ELECTRICAL	V	505565	8	353600
	411402		C	WIRE ELECTRICAL	V	505565	8	353700
D	479529		B	DRIVER RECORD HEAD	V	505565	8	353800
	411402		C	WIRE ELECTRICAL	V	479529	9	353900
C	479526		A	DIAG ELECT SCHEM	V	479529	9	354000
A	479530			MARKING RECORD HEAD DR	V	479529	9	354100
D	479534		A	RECORD TRACK SWITCH	V	505565	8	354200
	411140		D	SOLDER	V	479534	9	354300
	411398		B	WIRE ELECTRICAL	V	479534	9	354400
	411402		C	WIRE ELECTRICAL	V	479534	9	354500
A	414796			TRANSIPAD	V	479534	9	354600
C	479531		A	DIAG ELECT SCHEM	V	479534	9	354700
C	479532			PCB RECORD TRACK SW TOP	V	479534	9	354800
A	410018		H	PLASTIC SHEET	V	479532	10	354900
C	479533			PCB RECORD TRACK SW BOT	V	479534	9	355000
A	410018		H	PLASTIC SHEET	V	479533	10	355100
A	479535			MARKING RECORD TRACK SW	V	479534	9	355200
A	483333		A	ENCAPSULATION PROCEDURE	V	479534	9	355300
C	479560			INSULATION SH PCB 16A3A1	V	505565	8	355400
D	479564		A	GATED INT MON & VCO	V	505565	8	355500
	410499		D	INSULATION SLEEVING	V	479564	9	355600
	411140		D	SOLDER	V	479564	9	355700
	411398		B	WIRE ELECTRICAL	V	479564	9	355800
	411400		H	WIRE ELECTRICAL	V	479564	9	355900
	411402		C	WIRE ELECTRICAL	V	479564	9	356000
A	414796			TRANSIPAD	V	479564	9	356100
C	479561		A	DIAG ELECT SCHEM	V	479564	9	356200
C	479562			PCB INT MON & VCO TOP	V	479564	9	356300
A	410018		H	PLASTIC SHEET	V	479562	10	356400
C	479563			PCB INT MON & VCO BOT	V	479564	9	356500
A	410018		H	PLASTIC SHEET	V	479563	10	356600

JPL 1287 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 109 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	479565			MARKING GATED INT MON	V	479564	9	356700
A	483333		A	ENCAPSULATION PROCEDURE	V	479564	9	356800
C	479587			INSULATION SH PCB 16A3A2	V	505565	8	356900
D	479597		B	DIAG ELECTRONIC SCHEM	V	505565-1	8	357000
A	484612		A	WIRING LIST PT TO PT	V	505565	8	357100
A	484613			WIRING LIST PT TO PT	V	505565	8	357200
D	484623		A	PLAYBACK MOTOR AMPLIFIER	V	505565	8	357300
	410499		D	INSULATION SLEEVING	V	484623	9	357400
	411140		D	SOLDER	V	484623	9	357500
	411398		B	WIRE ELECTRICAL	V	484623	9	357600
	411400		H	WIRE ELECTRICAL	V	484623	9	357700
	411402		C	WIRE ELECTRICAL	V	484623	9	357800
A	414796			TRANSIPAD	V	484623	9	357900
A	483333		A	ENCAPSULATION PROCEDURE	V	484623	9	358000
C	484620		A	DIAG ELECT SCHEM	V	484623	9	358100
C	484621			PCB MOTOR AMPL TOP	V	484623	9	358200
A	410018		H	PLASTIC SHEET	V	484621	10	358300
C	484622			PCB MOTOR AMPL BOT	V	484623	9	358400
A	410018		H	PLASTIC SHEET	V	484622	10	358500
A	484624			MARKING PLAYBACK MOTOR	V	484623	9	358600
D	484627			SUBCHASSIS 16A3	V	505565	8	358700
A	492201			SURFACE TREATMENT	V	484627	9	358900
C	505572			MARKING SUBCHAS TAPE EL2	V	484627	9	359000
C	484637		B	PRINTED CB EL#2 16A3A1	V	505565	8	359100
	410432		D	PLASTIC SHEET	V	484637	9	359200
A	414741			TERMINAL STUD SPLIT	V	484637	9	359300
D	479597		B	DIAG ELECTRONIC SCHEM	V	484637-U	9	359305
A	484612	WL	A	PT-TO-PT TAPE ELECT #2	V	484637	9	359310
D	479529		B	RECORD HEAD DRIVER	V	484637	9	359350
C	484639		A	PCB PLAYBACK MOTOR DRIVE	V	505565	8	359400
	410432		D	PLASTIC SHEET	V	484639	9	359500
A	414741			TERMINAL STUD SPLIT	V	484639	9	359600
D	479597		B	DIAG ELECTRONIC SCHEM	V	484639-1	9	359605
A	484613	WL		PT-TO-PT TAPE ELECT #2	V	484639	9	359610
D	492004			LS 4&2 NAND GATE	V	505565	8	359700
C	492001			SCHEM LO SPD 4&2 NAND/G	V	492004	9	359710
C	492002			PCB LO SPEED 4&2 INPUT	V	492004	9	359712
C	492003			PCB LO SPEED 4&2 INPUT	V	492004	9	359714
A	492005			MARKING	V	492004	9	359720
D	492034			LS RS FLIP-FLOP	V	505565	8	359800

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 110 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	492031			SCHEM LO SPEED R-S F/F	V	492034	9	359810
A	492035			MARKING LO-SPEED R-S F/F	V	492034	9	359820
D	492044			LS UNIVERSAL FLIP-FLOP	V	505565	8	359900
C	492041			SCHEM LO SPEED UNV F/F	V	492044	9	359910
A	492045			MARKING LO-SPEED UNV F/F	V	492044	9	359920
D	505547		A	END OF TAPE SENSOR #2	V	505565	8	360000
	410499		D	INSULATION SLEEVING	V	505547	9	360100
	411140		D	SOLDER	V	505547	9	360200
	411400		H	WIRE ELECTRICAL	V	505547	9	360300
	411402		C	WIRE ELECTRICAL	V	505547	9	360400
A	414796			TRANSIPAD	V	505547	9	360500
A	483333		A	ENCAPSULATION PROCEDURE	V	505547	9	360600
D	505544		A	DIAGRAM EL SCHEM END	V	505547	9	360700
C	505545			PCB END TAPE SEN 2 TOP	V	505547	9	360800
A	410018		H	PLASTIC SHEET	V	505545	10	360900
C	505546			PCB END TAPE SEN 2 BOT	V	505547	9	361000
A	410018		H	PLASTIC SHEET	V	505546	10	361100
A	505548			MARKING END TAPE SEN 2	V	505547	9	361200
D	505559		A	IP SWITCH	V	505565	8	361300
	410400			WIRE ELECTRICAL	V	505559	9	361400
	410499		D	INSULATION SLEEVING	V	505559	9	361500
	411140		D	SOLDER	V	505559	9	361600
	411398		B	WIRE ELECTRICAL	V	505559	9	361700
	411402		C	WIRE ELECTRICAL	V	505559	9	361800
A	414796			TRANSIPAD	V	505559	9	361900
A	483333		A	ENCAPSULATION PROCEDURE	V	505559	9	362000
C	505557			PCB IP SWITCH TOP	V	505559	9	362100
A	410018		H	PLASTIC SHEET	V	505557	10	362200
C	505558			PCB IP SWITCH BOT	V	505559	9	362300
A	410018		H	PLASTIC SHEET	V	505558	10	362400
A	505560			MARKING IP SWITCH	V	505559	9	362500
E	479598		C	DIAG EL 3 AND XFORMER	V	505560	10	362600
C	505575		A	DIAGRAM ELECT SCHEM	V	505559	9	362700
D	505563		A	IP SWITCH	V	505565	8	362800
	410499		D	INSULATION SLEEVING	V	505563	9	362900
	411140		D	SOLDER	V	505563	9	363000
	411398		B	WIRE ELECTRICAL	V	505563	9	363100
	411400		H	WIRE ELECTRICAL	V	505563	9	363200
	411402		C	WIRE ELECTRICAL	V	505563	9	363300
A	414796			TRANSIPAD	V	505563	9	363400

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 111 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	479561		A	PCB IP SWITCH TOP	V	505563	9	363500
C	479562			PCB IP SWITCH BOT	V	505563	9	363600
A	483333			POTTING	V	505563	9	363700
C	505561			PCB IP SWITCH TOP	V	505563	9	363710
C	505562			PCB IP SWITCH BOTTOM	V	505563	9	363720
A	505564			MARKING IP SWITCH	V	505563	9	363800
C	505576		A	DIAG ELECT SCHEM IP SW	V	505563	9	363900
A	505583			INSULATION SHEET XFORMER	V	505565	8	364000
D	4600527	CD	A	TAPE ELECTRONICS β	L	4600520	5	364100
B	90433			SURFACE TREATMENT	L	4600527	6	364200
A	505579			5X106 BIT TAPE RECORDER	V	4600527	6	364300
D	484649		B	PWR DECOUPLING NETWORK	V	505579	7	364400
	410499		D	INSULATION SLEEVING	V	484649	8	364500
	411140		D	SOLDER	V	484649	8	364600
	411398		B	WIRE ELECTRICAL	V	484649	8	364700
	411400		H	WIRE ELECTRICAL	V	484649	8	364800
	411402		C	WIRE ELECTRICAL	V	484649	8	364900
A	414796			TRANSIPAD	V	484649	8	365000
A	483333		A	ENCAPSULATION PROCEDURE	V	484649	8	365100
C	484646		A	DIAG ELECT SCHEM	V	484649	8	365200
C	484647			PCB DECOUPLING NET TOP	V	484649	8	365300
A	410018		H	PLASTIC SHEET	V	484647	9	365400
C	484648			PCB PWR DECOUPLING NET	V	484649	8	365500
A	410018		H	PLASTIC SHEET	V	484648	9	365600
A	414741			TERMINAL STUD	V	484648	9	365700
A	484650			MARKING PWR DECOUPLING	V	484649	8	365800
C	484657		A	FLOW CHART TAPE RECORDER	V	505579	7	365900
D	505542		A	DIFFERENTIAL AMPL AND	V	505579	7	365910
C	479525		B	CASE MODULE MODIFIED	V	505542	8	365915
C	479524		B	COVER MODULE MODIFIED	V	505542	8	365920
C	496603			INSULATION SHEET	V	505542	8	365922
C	505530			INSULATION SHEET	V	505542	8	365923
D	505537			SCHEM DIFF AMPL & PREAMP	V	505542	8	365925
D	505540			DIFF AMPL & PREAMPL #3	V	505542	8	365930
D	505537			SCHEM DIFF AMPL & PREAMP	V	505540	9	365935
D	505538			PCB DIFF AMPL & PREAMP	V	505540	9	365940
D	505539			PCB DIFF AMPL & PREAMP	V	505540	9	365945
D	505541		A	DIFF AMPL & PREAMP #4	V	505542	8	365950
D	505537			SCHEM DIFF AMPL & PREAMP	V	505541	9	365955
D	505538			PCB DIFF AMPL & PREAMP	V	505541	9	365960

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 112 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	505539			PCB DIFF AMPL & PREAMP	V	505541	9	365965
A	505543			MARKING	V	505542	8	365970
C	505549			TB DIFF AMPL & PREAMP	V	505542	8	365975
C	496602			TB DIFF AMPL & PREAMPL	V	505549	9	365977
C	505550			INSULATION SHEET	V	505542	8	365980
D	505566		C	TAPE ELECTRONICS #3	V	505579-1	7	366000
A	410169		D	INS SLEEVING HEAT SHRINK	V	505566	8	366100
	410499		D	INSULATION SLEEVING	V	505566	8	366200
	411027			WASHER FLAT #6	V	505566	8	366300
	411091			SCREW FLAT HEAD	V	505566	8	366400
	411140		D	SOLDER	V	505566	8	366500
	411398		B	WIRE ELECTRICAL	V	505566	8	366600
	411402		C	WIRE ELECTRICAL	V	505566	8	366700
C	479523			XFORMER PWR STEP DOWN	V	505566	8	366800
B	479557			CLAMP CAPACITOR	V	505566	8	366900
A	415136		B	ALUMINUM ALLOY SHEET	V	479557	9	367000
C	479559			BRACKET ANGLE TRANSISTOR	V	505566	8	367100
A	415136		B	ALUMINUM ALLOY SHEET	V	479559	9	367200
C	479588			INSULATION SH PCB 16A4A1	V	505566	8	367300
E	479598		C	DIAGRAM ELECT SCHEM	V	505566	8	367400
A	484614		B	WIRING LIST PT TO PT	V	505566	8	367500
A	484615		A	WIRING LIST PT TO PT	V	505566	8	367600
D	484629		B	SUBCHASSIS 16A4	V	505566	8	367700
C	505573			MARKING SUBCHAS TAPE EL3	V	484629	9	367900
C	484642		C	PCB TAPE ELECT 3&XFMR	V	505566	8	368000
	410432		D	PLASTIC SHEET	V	484642	9	368100
A	414741			TERMINAL STUD SPLIT	V	484642	9	368200
E	479598		C	DIAG ELECT SCHEM	V	484642	9	368210
A	484614	WL	B	PT TO-PT TAPE ELECT #3	V	484642	9	368220
C	484644			PCB TAPE ELECT #3	V	505566	8	368300
	410432		D	PLASTIC SHEET	V	484644	9	368400
A	414741			TERMINAL STUD SPLIT	V	484644	9	368500
E	479598		C	DIAG ELECT SCHEM	V	484644	9	368510
A	484615	WL	A	PT-TO-PT TAPE ELECT	V	484644	9	368520
C	484658			TRANSFORMER SURGE LIMITR	V	505566	8	368600
C	484659		A	INSULATION SHEET PCB	V	505566	8	368700
C	492109			CHOKE 2 MH	V	505566	8	368800
C	492338			BRACKET 2 MOUNTING	V	505566	8	368900
C	505576			CLAMP CAPACITOR	V	505566	8	369000
	415136		B	ALUMINUM ALLOY SHEET	V	505526	9	369100

JPL 1367 JUN 63

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 113 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	505584			INSUL SHEET CAPACITOR	V	505566	8	369200
D	4600575			TAPE ELECTRONICS 4 16A5	LX	4600520	5	369300
B	90433			SURFACE TREATMENT	L	4600575	6	369400
A	505579			5X106 BIT TAPE RECORDER	V	4600575	6	369500
D	484649		B	PWR DECOUPLING NETWORK	V	505579	7	369600
	410499		D	INSULATION SLEEVING	V	484649	8	369700
	411140		D	SOLDER	V	484649	8	369800
	411398		B	WIRE ELECTRICAL	V	484649	8	369900
	411400		H	WIRE ELECTRICAL	V	484649	8	370000
	411402		C	WIRE ELECTRICAL	V	484649	8	370100
A	414796			TRANSIPAD	V	484649	8	370200
A	483333		A	ENCAPSULATION PROCEDURE	V	484649	8	370300
C	484646		A	DIAG ELECT SCHEM	V	484649	8	370400
C	484647			PCB DECOUPLING NET TOP	V	484649	8	370500
A	410018		H	PLASTIC SHEET	V	484647	9	370600
C	484648			PCB PWR DECOUPLING NET	V	484649	8	370700
A	410018		H	PLASTIC SHEET	V	484648	9	370800
A	414741			TERMINAL STUD	V	484648	9	370900
A	484650			MARKING PWR DECOUPLING	V	484649	8	371000
C	484657		A	FLOW CHART TAPE RECORDER	V	505579	7	371100
D	505567		D	TAPE RECORDER ELECTRONIC	V	505579-1	7	371200
A	410169		D	INSUL SLEEVING HEAT	V	505567	8	371300
A	410499		D	INSULATION SLEEVING	V	505567	8	371400
A	411140		D	SOLDER FLUX CORE	V	505567	8	371500
A	411398		B	WIRE ELECTRICAL	V	505567	8	371600
A	411402		C	WIRE ELECTRICAL	V	505567	8	371700
A	484616	WL	C	POINT TO POINT	V	505567-1	8	371800
D	484651		C	DIAG ELEC SCHEMATIC	V	505567-1	8	371900
D	484653		C	PCB TAPE RECORDER	V	505567-1	8	372000
	410432		D	PLASTIC SHEET	V	484653	9	372100
A	414741			TERMINAL STUD SPLIT	V	484653	9	372200
C	505582		A	INS SH PCB 16A5A2	V	484653	9	372300
D	484655		B	SUBCHAS TAPE ELECT 4	V	505567	8	372400
C	484656			MARKING	V	484655	9	372500
A	492201			SURFACE TREATMENT	V	484655	9	372600
C	505574		A	MARKING SUBCHAS TAPE EL4	V	484655	9	372700
D	492004			LOW SPEED 4&2 NAND GATE	V	505567	8	372800
D	492034			LOW SPEED R-S FLIP-FLOP	V	505567	8	372900
C	492032			PCB LO SPEED RS F/F TOP	V	492034	9	372910
C	492033			PCB LO SPEED RS F/F BOT	V	492034	9	372920

JPL 1867 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 114 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	492044			LOW SPEED UNIVERSAL F/F	V	505567	8	373000
C	492042			PCB LO SPEED UNIVERSAL	V	492044	9	373010
C	492043			PCB LO SPEED UNIVERSAL	V	492044	9	373020
D	505568			PCB LAUNCH MODE CKT	V	505567	8	373100
	410432		D	PLASTIC SHEET	V	505568	9	373200
A	414741			TERMINAL STUD SPLIT	V	505568	9	373300
C	505581			INS SH PCB 16A5A1	V	505568	9	373400
D	505570		A	END OF TAPE SENSOR 3	V	505567	8	373500
	410499		D	INSULATION SLEEVING	V	505570	9	373600
	411140		D	SOLDER	V	505570	9	373700
	411400		H	WIRE ELECTRICAL	V	505570	9	373800
	411402		C	WIRE ELECTRICAL	V	505570	9	373900
A	414796			TRANSIPAD	V	505570	9	374000
A	483333		A	ENCAPSULATION PROCEDURE	V	505570	9	374100
C	505545			PCB END TAPE SEN 2 TOP	V	505570	9	374200
C	505546			PCB END TAPE SEN 2 BOT	V	505570	9	374300
D	505569		A	DIAG EL SCHEM END TAPE	V	505570	9	374400
A	505577			MARKING END TAPE SEN 3	V	505570	9	374500
C	505571		A	TRANSFORMER POWER	V	505567	8	374600
A	505578	WL	B	POINT TO POINT	V	505567-1	8	374700
C	505581			INSUL SH PCB 16A5A1	V	505567	8	374800
C	505582		A	INSUL SH PCB 16A5A2	V	505567	8	374900
B	4900637			COAXIAL CABLE 2W23 ASSY	L	4600520	5	375000
B	4900638			COAXIAL CABLE 2W24 ASSY	L	4600520	5	375100
B	4900639			COAXIAL CABLE 2W25 ASSY	L	4600520	5	375200
B	4900640			COAXIAL CABLE 2W26 ASSY	L	4600520	5	375300
B	4900641			COAXIAL CABLE 2W27 ASSY	L	4600520	5	375400
J	4900667		A	CASE 5 HARNESS ASSY	L	4600520	5	375500
B	4900584		A	9W13 WIRING HARNESS	L	4900667	6	375600
B	4900585		E	9W17 WIRING HARNESS	L	4900667	6	375700
[illegible]	[illegible]		[illegible]	SPT ASSY CASE HARNESS	[illegible]	4900667	6	375800
D	4900659		B	BRACKET CONNECTOR MTG	L	4900661	7	375900
C	4900658		A	END BRACKET	L	4900659	8	376000
C	4900670		A	END BRACKET	L	4900659	8	376100
J	4900660		B	SUPPORT CABLE HARNESS	L	4900661	7	376200
D	4900671			BRACKET CONNECTOR MTG	L	4900661	7	376300
D	4901158		A	SCREW MACHINE PAN HEAD	L	4600520	5	376400
D	4901159		A	SCREW MACHINE INTERNAL	L	4600520	5	376500
J	4600521		F	RF COMMUNICATIONS ASSY	LX	4901042	4	376600
A	90347			SCREW MACHINE	L	4600521	5	376700

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 115 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4600481	CD	B	4 PORT CIRCULAT SW 2CS1	L	4600521	5	376800
D	31411050		C	COAX 4 PORT SW ASSY	V	4600481	6	376810
B	31411004			BEAD	V	31411050	7	376812
A	31411013		C	SHUNT	V	31411050	7	376814
B	31411015		D	COIL ASSY	V	31411050	7	376816
B	31411010		B	COIL FORM	V	31411015	8	376818
B	31411012		B	COIL COVER	V	31411015	8	376820
B	31411014		A	COIL LOCK RING	V	31411015	8	376822
B	31411071		C	COIL	V	31411015	8	376824
B	31411016		B	MAGNETIC COVER	V	31411050	7	376826
C	31411035		C	MONITOR PROBE ASSY	V	31411050	7	376828
B	31411028		A	INSULATOR	V	31411035	8	376830
B	31411029			JUNCTION	V	31411035	8	376832
A	31411030			DISC	V	31411035	8	376834
A	31411031			CONNECTOR	V	31411035	8	376836
B	31411032			JUNCTION	V	31411035	8	376838
C	31411033		A	HOUSING	V	31411035	8	376840
A	31411034			BEAD	V	31411035	8	376842
B	31411038			JUNCTION	V	31411035	8	376844
B	31411039		B	COUPLING WIRE	V	31411035	8	376846
B	31411073			LOCK NUT	V	31411035	8	376848
C	31411037		A	SPIDER ASSY	V	31411050	7	376850
B	31411026		A	CONNECTOR MODIFIED	V	31411037	8	376852
C	31411036		B	SPIDER	V	31411037	8	376854
C	31411047		B	HOUSING ASSY	V	31411050	7	376856
C	31411045		B	HOUSING-DRILLING	V	31411047	8	376858
C	31411046		A	HOUSING-MACH	V	31411045	9	376860
B	31411057			FERRITE DIELECTRIC	V	31411050	7	376862
B	31411058			FERRITE	V	31411050	7	376864
B	31411061			BEAD	V	31411050	7	376866
C	31411067		B	SHUNT-OUTER	V	31411050	7	376868
B	31411072		A	TUNING SCREW	V	31411050	7	376870
D	4600482	CD	B	5 PORT CIRCULAT SW 2CS2	L	4600521	5	376900
D	31411066		D	COAX 5 PORT SWITCH ASSY	V	4600482	6	376910
B	31411004			BEAD	V	31411066	7	376912
A	31411013		C	SHUNT	V	31411066	7	376914
B	31411015		D	COIL ASSY	V	31411066	7	376916
B	31411010		B	COIL FORM	V	31411015	8	376918
B	31411012		B	COIL COVER	V	31411015	8	376920
B	31411014		A	COIL LOCK RING	V	31411015	8	376922

JPL 1887 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 116 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	31411071		C	COIL	V	31411015	8	376924
B	31411016		B	MAGNETIC COVER	V	31411066	7	376926
C	31411035		C	MONITOR PROBE ASSY	V	31411066	7	376928
B	31411028		A	INSULATOR	V	31411035	8	376930
B	31411029			JUNCTION	V	31411035	8	376932
A	31411030			DISC	V	31411035	8	376934
A	31411031			CONNECTOR	V	31411035	8	376936
B	31411032			JUNCTION	V	31411035	8	376938
C	31411033		A	HOUSING	V	31411035	8	376940
A	31411034			BEAD	V	31411035	8	376942
B	31411038			JUNCTION	V	31411035	8	376944
B	31411039		B	COUPLING WIRE	V	31411035	8	376946
B	31411073			LOCK NUT	V	31411035	8	376948
D	31411051		B	HOUSING ASSY	V	31411066	7	376958
D	31411052		A	HOUSING-DRILLING	V	31411051	8	376960
D	31411056		A	HOUSING MACH	V	31411052	9	376962
B	31411057			FERRITE DIELECTRIC	V	31411066	7	376964
B	31411058			FERRITE	V	31411066	7	376966
B	31411061			BEAD	V	31411066	7	376968
C	31411063		A	SPIDER ASSY	V	31411066	7	376970
C	31411062		B	SPIDER	V	31411063	8	376972
B	31411026		A	CONNECTOR MODIFIED	V	31411063	8	376974
C	31411067		B	SHUNT-OUTER	V	31411066	7	376976
B	31411072		A	TUNING SCREW	V	31411066	7	376978
D	4600488	CD	B	LOW GAIN ANTENNA	L	4600521	5	377000
A	SP9016-6			STRAP COUPLING	V	4600488	6	377004
A	SP9016-12			DIELECTRIC PRIMARY	V	4600488	6	377006
C	SP 9060		C	POWER SAMPLER HIGH GAIN	V	4600488	6	377010
A	SP9060-1			CENTER CONDUCTOR	V	4600488	6	377012
A	SP9060-2			DIELECTRIC PRIMARY	V	4600488	6	377013
A	SP9060-3		A	N CONNECTOR PRIMARY	V	4600488	6	377014
A	SP9060-9	-2	B	DIELECTRIC ROD TUNING	V	4600488	6	377015
D	SP 9061		C	POWER SAMPLER	V	4600488	6	377020
B	SP9061-1			ATTENUATOR ASSY 6DB	V	4600488	6	377030
A	SP9061-11			CENTER CONDUCTOR	V	4600488	6	377031
A	SP9061-12		A	PIN CAPTIVE SECONDARY	V	4600488	6	377032
A	SP9061-13			BUSHING COUPLING	V	4600488	6	377033
A	SP9061-14			DIELECTRIC CAPTIVE SEC	V	4600488	6	377034
A	SP9061-16		B	CHASSIS MOD	V	4600488	6	377035
A	SP9061-17		A	CHASSIS MOD	V	4600488	6	377036

JPL 1887 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 117 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	SP9061-18			SCREW CAP MODIFIED	V	4600488	6	377037
A	SP9061-20		A	PIN BOTTOM-CRYSTAL	V	4600488	6	377038
A	SP9061-21			LOAD ASSY	V	4600488	6	377039
A	SP9061-22			DIELECTRIC	V	4600488	6	377040
B	SP9061-28			CRYSTAL HOLDER ASSY	V	4600488	6	377041
A	SP9061-29			LOAD ASSEMBLY	V	4600488	6	377042
B	SP 9128		B	ATTENUATOR ABSORBER	V	4600488	6	377043
A	201-C-901			CONTACT	V	4600488	6	377044
A	203-C-913			CONNECTOR CONTACT	V	4600488	6	377045
A	299-C-004			CRYSTAL SILICON	V	4600488	6	377046
A	299-N-004			NAMEPLATE GEN PURPOSE	V	4600488	6	377047
A	363-S-0XX			SCREW SET CUP POINT	V	4600488	6	377048
A	511-D-010			DIELECTRIC	V	4600488	6	377049
A	516-C-003			CAP #RHODIUM FLASHED#	V	4600488	6	377050
D	4600489	CD	B	HIGH GAIN ANTENNA 2CC1	L	4600521	5	377100
A	SP9060-4		B	CHASSIS-MOD	V	4600489	6	377110
A	SP9060-5			LOAD ASSEMBLY	V	4600489	6	377112
A	SP9060-8		B	PIN BOTTOM CRYSTAL	V	4600489	6	377114
A	SP9060-9		B	DIELECTRIC ROD TUNING	V	4600489	6	377116
D	4600491		A	CONTROL UNIT 2CC1 SUBASY	L	4600521	5	377200
B	90312			STUD LOCK FEMALE	L	4600491	6	377300
C	90314			CONNECTOR INSTL DEM-9	L	4600491	6	377400
J	4600490		A	SUBCHASSIS CONTROL UNIT	L	4600491	6	377500
B	90433			SURFACE TREATMENT	L	4600490	7	377600
J	4600564		A	CONT UNIT SCHEMATIC DIAG	L	4600491	6	377700
A	4600564	PL	A	CONTROL UNIT 2CC1	L	4600564	7	377800
J	4600565		A	CB1 ASSY CONTROL UNIT	L	4600491	6	377900
C	90252			SCREW QUINTLOCK	L	4600565	7	378000
C	90447			TERMINAL	L	4600565	7	378100
C	90448			TERMINAL	L	4600565	7	378200
J	4600564		A	CONTROL UNIT SCHEMATIC	L	4900565	7	378300
J	4600567			PC CB1 CONTROL UNIT	L	4600565	7	378400
C	4600573	CD		CHOKE	L	4600565	7	378500
C	4600574	CD		TRANSFORMER	L	4600565	7	378600
J	4600566		A	CB2 ASSY CONTROL UNIT	L	4600491	6	378700
C	90447			TERMINAL	L	4600566	7	378800
C	90448			TERMINAL	L	4600566	7	378900
J	4600564		A	CONTROL UNIT SCHEMATIC	L	4600566	7	379000
J	4600568			PC CB2 CONTROL UNIT	L	4600566	7	379100
C	4600571			CONN ASSY CONTROL UNIT	L	4600491	6	379200

JPL 2867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 118 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	4600564		A	CONTROL UNIT SCHEMATIC	L	4600571	7	379300
C	4600570			BRACKET CONTROL UNIT	L	4600571	7	379400
D	4600494	CD	B	POWER APPL SUBASSY 2PA1	L	4600521	5	379500
D	4600495	CD	C	EXCITERS SUBASSY 2RE1	L	4600521	5	379600
J	4600485		B	SUBCHASSIS EXCITERS ASSY	L	4600495	6	379700
A	90302			SURFACE TREATMENT	L	4600485	7	379800
D	4600522		A	DRILL TEMPLATE COMM	L	4600485	7	379900
D	4600581	CD		COAX ISOLATOR 2CL1/2CL2	L	4600495	6	379905
D	31863000		A	ISOLATOR ASSY	V	4600581	7	379907
A	31411013		C	SHUNT	V	31863000	8	379909
B	31411057			FERRITE DIELECTRIC	V	31863000	8	379911
B	31411058			FERRITE	V	31863000	8	379913
B	31411061			BEAD	V	31863000	8	379916
B	31411064			MAGNET	V	31863000	8	379918
A	31411065		A	POLE PIECE	V	31863000	8	379920
C	31863003		A	HOUSING ASSY	V	31863000	8	379922
D	31863001		A	HOUSING	V	31863003	9	379924
C	31863002		A	HOUSING	V	31863003	9	379926
C	31863005		A	SPIDER ASSY	V	31863000	8	379928
B	31411021			JUNCTION	V	31863005	9	379930
B	31411026		A	CONNECTOR MODIFIED	V	31863005	9	379932
C	31863004		A	SPIDER	V	31863005	9	379934
C	31863006			SHUNT-OUTER	V	31863000	8	379936
B	31863007			MAGNET COVER	V	31863000	8	379938
B	31863008			RESISTOR BEAD	V	31863000	8	379940
B	31863010			LOAD ASSY	V	31863000	8	379942
B	31863009			LOAD HOUSING	V	3186301C	9	379944
J	01-20500	D	F	X36 FREQUENCY MULTIPLIER	V	4600495	6	380000
C	01-20499	D	B	TERMINAL BOARD ASSY	V	01-20500	8	380100
A	11-29509	A	B	INSULATING VARNISH	V	01-20499D01	9	380110
A	12-20930	D	E	CAPACITOR VARIABLE	V	01-20499D01	9	380115
C	24-20655	D	A	TRANSFORMER T2	V	01-20499	9	380200
D	31-20653	D	A	T8 X36 FREQ MULTIPLIER	V	01-20499	9	380300
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20500D01	8	380310
D	33-20751	D	A	NAMEPLATE MODULE	V	01-20500	8	380320
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20500	8	380322
A	48-20892	B		TRANSISTOR SILICON	V	01-20500D01	8	380325
A	01-20500	DPL	A	X36 FREQUENCY MULTIPLIER	V	01-20500	7	380400
F	01-26879	B	C	TUNED CAVITY X108	V	01-20500	7	380410
A	02-26828	B		NUT PLAIN HEX-LIGHT	V	01-26879	8	380412

JPL 2867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 119 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	02-26838	B	A	NUT PLAIN HEXAGON	V	01-26879	8	380414
C	02-29392	B	A	NUT PROBE TUNED CAVITY	V	01-26879	8	380416
B	04-29393	B	A	WASHER-TUNED CAVITY X108	V	01-26879	8	380418
B	14-26835	B	A	INSULATOR SCREW	V	01-26879	8	380420
C	14-26837	B	B	INSULATOR CAVITY	V	01-26879	8	380422
C	14-26854	B	A	INSULATOR SEMICONDUCTOR	V	01-26879	8	380424
F	15-29390	B	A	HOUSING CAVITY X108	V	01-26879	8	380426
C	39-26844	B	B	CONTACT EL TUNED CAVITY	V	01-26879	8	380428
C	39-26845	B	A	CONDUCTOR	V	01-26879	8	380430
D	39-26860	B	A	CONDUCTOR SECTION	V	01-26879	8	380432
C	39-29423	B	A	CONDUCTOR SHORT	V	01-26879	8	380434
C	43-26843	H	A	SPACER TUNED CAVITY	V	01-26879	8	380436
C	43-29389	B	A	ALIGNMENT DEVICE	V	01-26879	8	380438
B	47-29396	B	A	ROD COUPLER TUNED CAVITY	V	01-26879	8	380440
A	48-20889	B		SEMICONDUCTOR DEVICE	V	01-26879B01	8	380441
C	58-29388	B		COUPLING TUNED CAVITY	V	01-26879	8	380442
C	58-29397	B	A	PROBE WAVEGUIDE	V	01-26879	8	380444
D	58-29400	B	B	COUPLER LOOP TUNE CAVITY	V	01-26879	8	380446
C	64-29395	B	A	PLATE CONNECTOR MOUNTING	V	01-26879	8	380448
C	02-20649	D	A	NUT CONNECTOR HEX-INC	V	01-20500	7	380500
C	02-20650	D	A	NUT CONNECTOR HEX TM	V	01-20500	7	380600
C	03-26311	C	A	SCREW CAP HEXAGON HEAD	V	01-20500	7	380700
C	04-20564	D	A	WASHER SPLIT LOCK	V	01-20500	7	380710
C	24-20471	D	B	COIL RF L-9-X36 FREQ	V	01-20500	7	380800
C	30-20502	D	A	WIRE SILVER SOLID #18	V	24-20471D	8	380810
C	24-20492	D	A	XFMR RF-AUXILIARY OSC T1	V	01-20500	7	380900
C	24-20503	D	A	XFMR FREQ MULTIPLIER	V	01-20500	7	381000
C	24-20621	D	A	L-LC COIL	V	01-20500	7	381100
F	27-20448	D	A	CHASSIS ELECT EQUIPMENT	V	01-20500	7	381200
F	63-26295	C	E	X36 FREQ MULTIPLR SCHEM	V	01-20500	7	381210
H	63-26296	C	F	FREQ MULT X30 SCHEMATIC	V	01-20500	7	381300
C	74-20671	C	B	COIL FORM	V	01-20500	7	381500
D	01-20513	D	A	EXCITER SUBASSY-2RE1	V	04600495	6	381510
A	11-15019	A		TAPE LACING	V	01-20513D01	7	381511
D	30-20519	C	B	CABLE ASSY ELECT 2RE1	V	01-20513	7	381512
A	03-20898	B	C	FASTENER CONNECTOR	V	30-20519D01	8	381513
D	07-20705	D	A	BRKT CONNECTOR MTG 2RE1	V	30-20519	8	381514
D	30-20742	C	A	CABLE ASSY RF	V	30-20519	8	381516
A	30-20897	B	A	CABLE R F SUBMINIATURE	V	30-20742D01	9	381517
A	37-14143			SLEEVING INSULATION	V	30-20742D05	9	381518

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 120 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	30-20743	D	C	CABLE ASSY RF-W5 W6 W7 W	V	30-20519	8	381519
C	30-20744	D	A	CABLE ASSY RF-W38	V	30-20519	8	381520
A	30-20897	B	A	CABLE R F SUBMINIATURE	V	30-20744D01	9	381525
D	70-20591	D	A	2113/2295 MC TRANSPONDER	V	01-20513	7	381530
J	01-20578	D	F	AUXILIARY OSCILLATOR ASY	V	4600495	6	381600
C	01-20488	D	C	TB1 ASSY T1 AUX OSCILLATR	V	01-20578	7	381700
A	11-20166	C	A	ADHESIVE-EPOXY	V	01-20488	8	381710
C	31-20487	D	B	TB1 AUXILIARY OSCILLATOR	V	01-20488	8	381800
C	01-20490	D	B	TB2 ASSY AUXILLIARY OSC	V	01-20578	7	381900
C	24-20493	C	A	XFMR RF-AUXILIARY OSC T2	V	01-20490	8	382000
C	24-20494	C	A	XFMR RF-AUXILIARY OSC T3	V	01-20490	8	382100
D	24-20495	D	B	XFMR RF AUXILIARY OSC T4	V	01-20490	8	382200
C	24-20496	C	A	XFMR RF-AUXILIARY OSC T5	V	01-20490	8	382300
D	31-20489	C	C	TB2 AUXILLIARY OSCILLATR	V	01-20490	8	382400
A	48-20842	C	A	SEMICONDUCTOR DEVICE	V	01-20490D01	8	382410
A	01-20578	OPL	B	OSC R F AUXILIARY	V	01-20578	7	382500
A	11-29509	A	B	INSULATING VARNISH	V	01-20578D02	7	382510
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20578D02	7	382520
F	27-20486	D	D	CHASSIS ELECT EQUIPMENT	V	01-20578	7	382600
C	46-25228	B	B	BLOCK MTG XSISTOR TC-18	V	01-20578	7	382610
A	48-20891	B	D	SEMICONDUCTOR DEVICE	V	01-20578D02	7	382615
A	48-20892	B		TRANSISTOR SILICON	V	01-20578D02	7	382620
C	48-22700	A	E	CRYSTAL UNIT QUARTZ	V	01-20578	7	382625
H	63-26285	C	F	2C MC AUX OSCILL SCHEM	V	01-20578	7	382700
J	01-20579	D	E	X30 FREQUENCY MULTIPLIER	V	4600495	6	382800
A	01-20579	OPL	A	X30 FREQ MULT	V	01-20579	7	382810
C	01-20684	D	B	TB1 X30 FREQ MULTIPLIER	V	01-20579	7	382900
A	11-29509	A	B	INSULATING VARNISH	V	01-20684D01	8	382910
D	31-20685	D	B	TERMINAL BOARD #1	V	01-20684	8	383000
F	01-20805	D	B	CAVITY X30 FREQ MULT	V	01-20579	7	383008
B	01-20805	DLM	B	CAVITY-X30 FREQ MULT	V	01-20805	8	383009
C	02-20816	D	A	NUT HEX LOCKING	V	01-20805	8	383010
C	03-20818	D	A	SCREW PLUG CAVITY	V	01-20805	8	383011
C	07-20812	D	C	BRACKET-VARACTOR CONTACT	V	01-20805	8	383012
C	14-20810	D	A	INSULATOR CAVITY	V	01-20805	8	383013
C	14-20811	D	A	INSULATOR CAVITY	V	01-20805	8	383014
C	14-20815	D	A	INSULATOR CAVITY	V	01-20805	8	383015
J	15-20808	D	C	HOUSING-CAVITY X30	V	01-20805	8	383016
C	39-20813	D	A	ELEMENT CAVITY	V	01-20805	8	383017
C	39-20814	D	A	ELEMENT CAVITY	V	01-20805	8	383018

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 121 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	42-20809	D	B	HOLDER VARACTOR	V	01-20805	8	383019
A	48-20664	D	B	SEMICONDUCTOR DEVICE	V	01-20805D01	8	383020
C	58-20807	D	A	PROBE OUTPUT CAVITY	V	01-20805	8	383021
C	76-20817	D	A	SLUG TUNING CAVITY	V	01-20805	8	383022
D	06-15023			RESISTOR FIXED COMPOSIT	V	01-20579	7	383025
A	11-29509	A	B	INSULATING VARNISH	V	01-20579D01	7	383030
A	19-20930	D	E	CAPACITOR VARIABLE	V	01-20579D01	7	383035
C	21-14071	A	B	CAPACITOR FIXED CERAMIC	V	01-20579	7	383040
D	24-20505	D	B	COIL RF L13 L14	V	01-20579	7	383100
C	30-20502	D	A	WIRE SILVER SOLID #18	V	24-20505D	8	383110
C	24-20839	D	A	COIL RF L11-X30	V	01-20579	7	383200
C	74-20830	D	A	COIL FORM L11	V	24-20839	8	383210
C	24-20840	D	A	COIL RF FREQ MULTIPLIER	V	01-20579	7	383300
C	74-20820	D	A	COIL FORM-L12 X30 MULT	V	24-20840	8	383310
C	24-20844	D	A	COIL RF L9-X30 FREQ MULT	V	01-20579	7	383400
A	25-29548	A		FILTER LO PASS-FEED-THRU	V	01-20579D01	7	383405
J	27-20683	D	C	CHASSIS ELECTRICAL EQUIP	V	01-20579	7	383410
C	46-25228	B	B	BLOCK MTG XSISTOR TO-18	V	01-20579	7	383415
C	46-26861	B	A	BLOCK MOUNTING-XSTR	V	01-20579	7	383420
A	48-20667	D	A	TRANSISTOR SILICON	V	01-20579D01	7	383425
A	48-20668	D	B	TRANSISTOR SELICON	V	01-20579D01	7	383430
A	48-20717	D	C	SEMICONDUCTOR DEVICE	V	01-20579D01	7	383435
A	48-20756	D	B	SEMICONDUCTOR DEVICE	V	01-20579D01	7	383440
A	48-20892	B		TRANSISTOR SILICON	V	01-20579D01	7	383445
C	64-20732	D	A	STRIP GROUND	V	01-20579	7	383450
F	74-20506	D	B	COIL FORM L13 & L14	V	01-20579	7	383500
F	01-20679	D	A	DUAL CAVITY	V	4600495	6	383600
C	14-20675	D	A	PROBE INSULATOR	V	01-20679	7	383700
D	15-20672	D	A	HOUSING DUAL CAVITY BLCK	V	01-20679	7	383800
C	58-20676	D	A	PROBE #1 DUAL CAVITY	V	01-20679	7	383900
C	58-20677	D	A	PROBE #2 DUAL CAVITY	V	01-20679	7	384000
C	64-20673	D	A	OUTPUT END PLATE	V	01-20679	7	384100
C	64-20674	D	A	PLATE CENTER WALL DIVIDR	V	01-20679	7	384200
C	15-20712	D	A	COVER CHASSIS	V	4600495	6	384300
C	24-20507	D	A	TRANSFORMER RF T1	V	4600495	6	384400
C	24-20508	D	A	TRANSFORMER RF T2	V	4600495	6	384500
C	24-20708	D	A	COIL RF L10 & L11	V	4600495	6	384600
C	30-20502	D	A	WIRE SILVER SOLID #18	V	24-20708D	7	384610
F	74-20506	D	A	COIL FORM L3 T5 & T6	V	4600495	6	384700
D	74-20709	D	A	COIL FORM L10 & L11	V	4600495	6	384800

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 122 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4600496		B	EXCITERS XFMR RECT 2TR2	L	4600521	5	384900
D	01-20670	D	B	XFMR RECTIFIER EXCITER	V	4600496	6	385000
A	25-20689	D	C	XFMR PWR STEP-DOWN	V	01-20670D01	7	385010
D	27-20692	D	B	CHASSIS ELECTRICAL EQUIP	V	01-20670	7	385100
D	30-20757	D	A	CABLE ASSY ELECTRICAL	V	01-20670	7	385200
D	30-20757	D	B	CABLE ASSY ELECT 2TR2A1	V	01-20670	7	385300
F	63-20680	D	D	XFMR RECTIFIER SCHEM	V	01-20670	7	385400
F	63-20868	D	A	PWR SUPP EXCITER SCHEM	V	01-20670	8	385405
D	30-15073	A	A	WIRE ELECTRICAL	V	01-20670	7	385410
J	4600525		D	CHASSIS RF COMMUNICATION	LX	4600521	5	385700
J	4901046		C	CHASSIS BASIC ASSY	L	4600525	6	385800
A	90433			SURFACE TREATMENT	L	4901046	7	385900
J	4901107		E	TRANSDUCER TEMPERATURE	L	4600525	6	386000
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4901107	7	386100
B	4800078		B	CLAMP WIRE	L	4901107	7	386200
D	4901158		A	SCREW MACHINE PAN HEAD	L	4901107	7	386300
J	4600572		B	SUPPORT ASSEMBLY	L	4600521	5	386400
B	90433			SURFACE TREATMENT	L	4600572	6	386500
D	4600577	CD		FILTER 2CF1/2CF2	L	4600521	5	386600
D	31701000		B	FILTER ASSY	V	4600577	6	386610
C	31701001			HOUSING	V	31701000	7	386612
B	31701002			CONDUCTOR	V	31701000	7	386614
B	31701004		A	COVER	V	31701000	7	386616
B	31701005			COVER	V	31701000	7	386618
B	31701007			RESONATOR TUBE	V	31701000	7	386620
B	31701009			INSULATOR	V	31701000	7	386622
B	31701011			SLEEVE ASSY	V	31701000	7	386624
B	31701008			SLEEVE	V	31701011	8	386626
B	31701010			TUNING SCREW	V	31701011	8	386628
B	31701012			COUPLING DISC	V	31701000	7	386630
A	31701013			C-WASHER	V	31701000	7	386632
A	31701015			BUTTON-FAIR	[illegible]	[illegible]	[illegible]	[illegible]
D	4600589		B	TRAVELING WAVE TUBE ASSY	L	4600521	5	386700
D	B101650		A	FINAL PACKAGE ASSY	V	4600589	6	386710
C	B101653		C	216-H OUTLINE DWG	V	B101803	7	386720
C	B101656		A	COMPLETED TUBE ASSY	V	B101803	7	386730
C	B101803			TUBE & BLOCK HEAT SINK	V	B101650	7	386740
D	4600590	CD	A	PWR AMPL PWR SUPPLY	L	4600521	5	386800
B	90433			SURFACE TREATMENT	L	4600590	6	386802
D	4901058		B	SUBCHASSIS MACHINED	L	4600590	6	386803

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 123 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	48157		A	COMPONENT BD ASSY TB-3	V	4600590	6	386805
	49009			COMPONENT ASSY TB-1	V	4600590	6	386808
D	49323			CHASSIS ASSY PWR SUPPY	V	4600590	6	386810
D	49324			PWR SUPPLY-EMPS-124A	V	4600590	6	386815
D	19322		A	COMPONENT ASSY TB-4	V	49324	7	386822
B	26756		A	INSULATOR BOARD EPOXY	V	49324	7	386828
	38158			TRANSFORMER ASSY	O	49324	7	386832
	38159			CHOKE POWER ASSY	O	49324	7	386834
	38160			TRANSFORMER CURRENT	O	49324	7	386836
	38161			CHOKE FILTER ASSY	O	49324	7	386838
	38162			CHOKE OUTPUT ASSY	O	49324	7	386840
	38163			SATURABLE REACTOR ASSY	O	49324	7	386842
C	39007			COMPONENT BD ASSY TB-6	V	49324	7	386844
C	39008			COMPONENT BD TB-5	V	49324	7	386846
C	39017		A	COVER PWR SUPPLY	V	49324	7	386848
C	39326			COMPONENT ASSY TB-7	V	49324	7	386850
	48630			SCHEMATIC	O	49324	7	386852
D	49322		A	COMPONENT ASSEMBLY TB-4	V	49324	7	386854
A	49324	LM		POWER SUPPLY EMPS 124A	V	49324	7	386856
A	49324	WL		EMPS 124A PWR SUPPLY	V	49324	7	386858
D	49325		A	COMPONENT ASSY TB-8	V	49324	7	386860
D	49329		B	OUTLINE & SPECIFICATION	V	49324	7	386862
A	EMP 74444			IDENTIFICATION & MARKING	V	49324	7	386864
A	74520			ELEC & ELECT SYMBOLS	V	49324	7	386866
A	79400			WORKMANSHIP STANDARDS	V	49324	7	386868
D	4600591		B	TRAVELING WAVE TUBE	L	4600521	5	386900
B	90433			SURFACE TREATMENT	L	4600591	7	386905
D	48860			FINAL ASSY PWR SUPPLY	V	4600591	6	386910
A	18869			RUBBER STAMP	V	48860	7	386912
B	26756		A	INSULATOR BOARD EPOXY	V	48860	7	386918
B	28870			SILK SCREEN EMPS 121A	V	48860	7	386922
B	28871			RUBBER STAMP TERMINAL	V	48860	7	386923
B	28872			TB TB-2-1	V	48860	7	386924
B	28873			INSULATOR BOARD A1-	V	48860	7	386926
C	37447			COVER PWR SUPPLY EMPS	V	48860	7	386928
C	38862			COVER OUTPUT TERM	V	48860	7	386930
C	38863			COMPONENT BD ASSY TB3	V	48860	7	386932
C	38864			COMP ASSY TB-4-	V	48860	7	386934
	38382			TRANSFORMER	O	48860	7	386936
	38383			TRANSFORMER ASSY	O	48860	7	386938

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 124 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	38868			BOARD CAPACITOR MTG	V	48860	7	386940
	39412			CHOKE	O	48860	7	386942
	39413			SATURABLE REACTOR	O	48860	7	386944
	39414			CHOKE	O	48860	7	386946
	39415			CHOKE	O	48860	7	386948
	39416			CHOKE ASSY	O	48860	7	386950
	39417			CHOKE ASSY	O	48860	7	386952
	39418			SATURABLE REACTOR	O	48860	7	386954
A	48860	LM	B	TWTA POWER SUPPLY	V	48860	7	386956
A	48860	WL		POWER SUPPLY	V	48860	7	386958
D	48865			COMP ASSY A1-	V	48860	7	386960
D	48866		A	COMPONENT BD ASSY TB1	V	48860	7	386962
D	48875		B	FILTER ASSY PWR SUPPLY	V	48860	7	386964
C	37445			CAN ASSY- HV FILTER	V	48875	7	386966
	49405			SCHEMATIC DIAGRAM	O	48860	7	386968
E	57446			CHASSIS ASSY PWR SUPPLY	V	48860	7	386970
B	28867			STUD PLATE	V	57446	8	386971
A	EMP 74444			IDENTIFICATION & MARKING	V	48860	7	386972
A	74520			ELEC & ELECT SYMBOLS	V	48860	7	386974
A	75576			CAPACITORS TANTALUM FOIL	V	48860	7	386976
A	79400			WORKMANSHIP STANDARDS	V	48860	7	386978
D	48861			OUTLINE TWTA PWR SUPPLY	V	4600591	6	386990
D	4600592		B	ATTENUATOR 2AT1	L	4600521	5	387000
B	ES-2006		C	ATTENUATOR SPECIAL	V	4600592	6	387010
B	SP9128-1		B	CHASSIS ATTENUATOR	V	4600592	6	387012
A	SP9128-2		B	CENTER CONDUCTOR	V	4600592	6	387014
A	SP9128-3		B	CONNECTOR MOD	V	4600592	6	387016
A	SP9128-4		A	ELEMENT END 1.5 - IE	V	4600592	6	387018
A	SP9128-5		A	ELEMENT CENTER 2.5-1 L	V	4600592	6	387020
A	SP9128-6			BUSHING	V	4600592	6	387022
A	201-C-902			CONTACT	V	4600592	6	387024
A	299-N-005			NAMEPLATE GEN PURPOSE	V	4600592	6	387026
A	511-D-011	-1	A	DIELECTRIC	V	4600592	6	387028
A	540-C-001			CONNECTOR-SPECIAL TNC	V	4600592	6	387030
J	4800525			CHASSIS RF COMMUNICATION	LX	4600521	5	387100
B	4900588			COAXIAL CABLE 2W4 ASSY	L	4600521	5	387200
B	4900589			COAXIAL CABLE 2W5 ASSY	L	4600521	5	387300
B	4900590			COAXIAL CABLE 2W18 ASSY	L	4600521	5	387400
B	4900591			COAXIAL CABLE 2W14 ASSY	L	4600521	5	387500
B	4900592			COAXIAL CABLE 2W16 ASSY	L	4600521	5	387600

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 125 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4900593			COAXIAL CABLE PW17 ASSY	L	4600521	5	387700
B	4900594			COAXIAL CABLE PW8 ASSY	L	4600521	5	387800
B	4900595			COAXIAL CABLE PW9 ASSY	L	4600521	5	387900
B	4900596			COAXIAL CABLE PW10 ASSY	L	4600521	5	388000
B	4900597			COAXIAL CABLE PW11 ASSY	L	4600521	5	388100
B	4900598			COAXIAL CABLE PW12 ASSY	L	4600521	5	388200
B	4900599			COAXIAL CABLE PW13 ASSY	L	4600521	5	388300
B	4900648			COAXIAL CABLE PW28 ASSY	L	4600521	5	388400
B	4900649			COAXIAL CABLE PW29	L	4600521	5	388500
D	4900661			SPT ASSY CASE HARNESS	L	4900668	5	388600
D	4900659		B	BRACKET CONNECTOR MTG	L	4900661	6	388700
C	4900658		A	END BRACKET	L	4900659	7	388800
C	4900670		A	END BRACKET	L	4900659	7	388900
J	4900660		B	SUPPORT CABLE HARNESS	L	4900661	6	389000
D	4900671			BRACKET CONNECTOR MTG	L	4900661	6	389100
D	4901158		A	SCREW MACHINE PAN HEAD	L	4600521	5	389400
D	4901159		A	SCREW MACHINE INTERNAL	L	4600521	5	389500
B	4901204		A	COAX CABLE PW30	L	4600521	5	389520
B	4901205		A	COAX CABLE PW31	L	4600521	5	389522
B	4901206		A	COAX CABLE PW32	L	4600521	5	389524
B	4901207		A	COAX CABLE PW33	L	4600521	5	389526
B	4901208		A	COAX CABLE PW34	L	4600521	5	389528
B	4901209		A	COAX CABLE PW35	L	4600521	5	389530
B	4901210		A	COAX CABLE PW36	L	4600521	5	389532
B	4901211		A	COAX CABLE PW37	L	4600521	5	389534
J	4901213		A	CASE & HARNESS ASSY	L	4600521	5	389536
	DS 84			SCREW-HI-TORQUE PAN HEAD	L	4901213	6	389537
D	4900661			SPT ASSY CASE HARNESS	L	4901213	6	389538
B	4901212		A	PW2 WIRING HARNESS	L	4901213	6	389540
J	9385150		C	PWR AMPL ASSEMBLY	L	4600521	5	389600
	DS 83			SCREW INTERNAL WRENCHING	L	9385150	6	389610
C	90314			CONNECTOR INSTL DEM-9	L	9385150	6	389615
J	9385132		D	HOUSING PWR AMPLIFIER	L	9385150	6	389700
D	9385133		G	HEAT SINK ASSY PWR AMPL	L	9385150	6	389800
C	9385134			COVER PLATE END PWR AMPL	L	9385150	6	389900
C	9385135			COVER PLATE TOP PWR AMPL	L	9385150	6	390000
B	9385136			B PLUS CAP PWR AMPLIFIER	L	9385150	6	390100
B	9385137			TUNING ELEMENT PWR AMPL	L	9385150	6	390200
B	9385138		A	INSULATOR PLATE LINE	L	9385150	6	390300
B	9385139		A	NUT GRID GROUNDING PWR	L	9385150	6	390400

JPL 1567 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 126 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	9385140			PROBE POWER AMPLIFIER	L	9385150	6	390500
C	9385141		A	CONTACT CATHODE PWR AMP	L	9385150	6	390600
C	9385142			PLATE LINE PWR AMPL	L	9385150	6	390700
C	9385143			CONTACT FILAMENT PWR AMP	L	9385150	6	390800
C	9385144			LOOP NEUTRALIZATION	L	9385150	6	390900
C	9385145			TERMINAL PWR AMPL	L	9385150	6	391000
C	9385151			SUP CATHODE & FILAMENT	L	9385150	6	391100
D	9385152			TRIODE CERAMIC DISC-SEAL	L	9385150	6	391200
D	9385201		A	TEMP COMPENSATOR ASSY	L	9385150	6	391300
D	9385204			HOUSING	L	9385201	7	391400
C	9385205			COVER	L	9385201	7	391500
D	9385206			BELLOWS ASSEMBLY	L	9385201	7	391600
D	9385207			TERMINAL	L	9385206	8	391700
D	9385208			PLUNGER	L	9385206	8	391800
C	9385209			BELLOWS	L	9385206	8	391900
C	9385213		A	SHIM TEMPERATURE	L	9385201	7	392000
B	9385203			SCREW PAN HD	L	9385150	6	392100
B	9385210			NUT HEX JAM	L	9385150	6	392200
B	9385211			PLUG	L	9385150	6	392300
B	9385212		A	WASHER-PLATE LINE MTG	L	9385150	6	392400
C	9385258			WASHER GRID GROUNDING	L	9385150	6	392410
J	4801216		E	SCIENTIFIC EQUIP ASSY	L	4901042	4	392500
	DS 78			STUD LOCKING FEMALE CONN	L	4801216	5	392510
	DS 85			SCREW-HI-TORQUE PAN HEAD	L	4801216	5	392515
	DS 89			SCREW-HI-TORQUE 100	L	4801216	5	392520
A	90347			SCREW MACHINE	L	4801216	5	392600
D	4801025	CD	E	MAGNETOMETER ELECT 33A2	L	4801216	5	392700
A	90302			SURFACE TREATMENT	L	4801025	6	392800
D	4801026	CD	B	MAGNETOMETER ELECT 33A3	L	4801216	5	393000
B	90433			SURFACE TREATMENT	L	4801026	6	393100
D	4801205		B	BUFFER MEMORY 2CAI	L	4801216	5	393400
B	90433			SURFACE TREATMENT	L	4801205	6	393500
D	4901047		B	SUBCHASSIS MACHINED	L	4801205	6	393600
J	7016126		B	BLIVET ASSY WIRED	V	4801205	6	393700
C	7016110			CONNECTOR ASSY 25 PIN	V	7016126	7	393710
D	7016125			BLIVET ASSY UNWIRED	V	7016126	7	393715
C	7016123			INSULATOR BOARD	V	7016125	8	393720
C	7016124			MEMORY UNIT SUBASSY INSU	V	7016125	8	393725
J	7016120		C	1320 SEQUENTIAL	V	7016124	9	393730
C	7012328		F	SWITCH CORE X REGISTER	V	7016120	10	393735

JPL 1567 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 127 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	7012329		F	SWITCH CORE Y REGISTER	V	7016120	10	393740
C	7012330		E	SWITCH CORE Z REGISTER	V	7016120	10	393745
C	7012331		G	SWITCH CORE X REGISTER	V	7016120	10	393750
C	7012332		G	SWITCH CORE Y REGISTER	V	7016120	10	393755
C	7012333		F	SWITCH CORE Z REGISTER	V	7016120	10	393760
D	7012335		C	TRANSFORMER PULSE 1.1	V	7016120	10	393765
D	7012336		D	TRANSFORMER PULSE 1.1	V	7016120	10	393770
D	7012337		D	TRANSFORMER PULSE	V	7016120	10	393775
D	7012338		D	TRANSFORMER PULSE 1.20	V	7016120	10	393780
D	7012339		B	TRANSFORMER PULSE 1.38	V	7016120	10	393785
D	7012340		B	TRANSFORMER PULSE 2.1	V	7016120	10	393790
D	7012341		B	TRANSFORMER PULSE 2.1	V	7016120	10	393795
D	7012342		B	TRANSFORMER PULSE 2.1	V	7016120	10	393800
D	7012343		B	TRANSFORMER PULSE	V	7016120	10	393805
D	7012344		B	TRANSFORMER PULSE 1.3	V	7016120	10	393810
D	7012347		B	TRANSFORMER PULSE 3.2	V	7016120	10	393815
A	7016120	LM	B	1320 SEQUENTIAL MEMORY	V	7016120	10	393817
J	7016122		A	CORE ARRAY 1320 BIT	V	7016120	10	393820
E	7016121		A	PCB ASSY OF	V	7016122	11	393825
B	7016130			SHIELD TRANSFORMER	V	7016120	10	393827
D	7016128			BLIVET MODIFIED	V	7016125	8	393830
E	7016119		E	PCB 1320 SEQ MEMORY	V	4801205	6	393835
B	7016129			SPACER -.150 O.D.	V	4801205	6	393840
D	7012326		E	SCHEM 1320-BIT SEQ MEM	V	4801205	6	393845
D	4801206	CD	B	NRT DAS LOGIC 20A3	LX	4801216	5	393900
B	90433			SURFACE TREATMENT	L	4801206	6	394800
B	MC1C1		C	MC DAS INTERFACE CIRCUIT	V	4801206	6	395100
B	MC1C2		A	MC DAS INTERFACE CIRCUIT	V	4801206	6	395200
B	MC1C3		B	MC DAS INTERFACE CIRCUIT	V	4801206	6	395300
B	MC1C4		A	MC DAS INTERFACE CIRCUIT	V	4801206	6	395400
D	4001807		B	SUBCHASSIS ASSEMBLY	V	4801206	6	395500
B	MC023		C	MODULE ASSIGN FLIGHT	V	4001807	7	395600
B	MC106		B	FLIP FLOP MODULE 4 [illegible]	V	4001807	7	395700
B	MC109		C	COUNTER/SHIFT REG MODULE	V	4001807	7	395800
B	MC111			DC TO ESR	V	4001807	7	395900
A	MC112		C	AND INVERTER TYPE 1-1	V	4001807	7	396000
A	MC113		D	AND INVERTER TYPE 2-1	V	4001807	7	396100
A	MC114		A	AND INVERTER TYPE 3-1	V	4001807	7	396200
A	MC115		B	AND INVERTER TYPE 4-1	V	4001807	7	396300
A	MC116		A	DCX	V	4001807	7	396400

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 128 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	MC117		B	AND INVERTER TYPE 5-1	V	4001807	7	396500
A	MC118		A	OR INVERTER TYPE -1	V	4001807	7	396600
A	MC119		A	EMITTER FOLLOWER	V	4001807	7	396700
B	MC121		C	111.111 KC OSCILLATOR	V	4001807	7	396800
A	MC124		B	IP INTERFACE	V	4001807	7	396900
A	MC125		B	IS INTERFACE	V	4001807	7	397000
A	MC126		A	II INTERFACE	V	4001807	7	397100
A	MC127		A	LD-1	V	4001807	7	397200
B	MC130		A	2RESET AMP &PWR-ON SCHEM	V	4001807	7	397300
B	MC133		A	FLIP FLOP MODULE SEE	V	4001807	7	397400
A	MC134		C	21.4 KC MV	V	4001807	7	397500
A	MC141		C	NRT PWR-ON RESET CKT	V	4001807	7	397600
A	MC142			SPC-1	V	4001807	7	397700
B	MC143		C	COUNTER/SHIFT REG MODULE	V	4001807	7	397800
A	MC144		C	AND INVERTER TYPE 2-2	V	4001807	7	397900
A	MC145		C	AND INVERTER TYPE 2-3	V	4001807	7	398000
A	MC146		A	AND INVERTER TYPE 3-2	V	4001807	7	398100
A	MC147		B	AND INVERTER TYPE 3-3	V	4001807	7	398200
A	MC148		A	AND INVERTER TYPE 3-4	V	4001807	7	398300
A	MC149		B	AND INVERTER TYPE 3-5	V	4001807	7	398400
A	MC150		B	AND INVERTER TYPE 4-2	V	4001807	7	398500
A	MC151		C	AND INVERTER TYPE 4-3	V	4001807	7	398600
A	MC152		B	AND INVERTER TYPE 4-4	V	4001807	7	398700
A	MC153		B	AND INVERTER TYPE 5-2	V	4001807	7	398800
A	MC154		C	AND INVERTER TYPE 5-3	V	4001807	7	398900
A	MC155		B	OR INVERTER TYPE -2	V	4001807	7	399000
A	MC156			OR INVERTER TYPE -3	V	4001807	7	399100
A	MC157		B	AND INVERTER TYPE 1-2	V	4001807	7	399200
A	MC158		B	AND INVERTER TYPE 1-3	V	4001807	7	399300
B	600-403		J	MC TRAPPED RADIATION	V	4001807	7	399400
D	600-449		J	REAL TIME A/D ACCUMULATE	V	4001807	7	399500
D	600-488		L	NRT BUFFER&TAPE CONTROLS	V	4001807	7	399600
D	600-489		G	NRT DAS SEQUENCER	V	4001807	7	399700
D	600-491		N	NRT DAS ENCOUNTER	V	4001807	7	399800
D	600-492		T	NRT DAS CNTR SHIFT REG	V	4001807	7	399900
D	600-499		J	REAL TIME A/D ACCUMULAT	V	4001807	7	400000
D	600-500		M	REAL TIME TIMING&CONTROL	V	4001807	7	400100
D	600-678		B	TRAPPED RADIATION	V	4001807	7	400110
D	600-686		B	NRT BUFFER & TAPE CONT	V	4001807	7	400115
D	600-687		B	NRT DAS SEQUENCER	V	4001807	7	400120

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 129 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	600-688		B	NRT DAS ENCOUNTER	V	4001807	7	400125
D	600-689		B	NRT DAS COUNTER SHIFT	V	4001807	7	400130
D	600-690		B	REAL TIME A/D	V	4001807	7	400135
D	600-691		B	REAL TIME TIMING & CONT	V	4001807	7	400140
A	X1001976	LM	G	HARNESS 20A2A MC DAS	V	4001807	7	400200
A	X1001977	LM	D	HARNESS 20A2B MC DAS	V	4001807	7	400300
A	X1001978	LM	G	HARNESS 20A3A MC DAS	V	4001807	7	400400
A	X1001979	LM	A	HARNESS 20A3B MC DAS	V	4001807	7	400500
A	X1001980	LM	G	HARNESS 20A4A MC DAS	V	4001807	7	400600
A	X1001981	LM	G	HARNESS 20A4B MC DAS	V	4001807	7	400700
A	X1001982		P	WIRE JUMPER LIST 20A2A	V	4001807	7	400800
A	X1001983		F	WIRE JUMPER LIST 20A2B	V	4001807	7	400900
A	X1001984		E	WIRE JUMPER LIST 20A3A	V	4001807	7	401000
A	X1001985		B	WIRE JUMPER LIST 20A3B	V	4001807	7	401100
A	X1001986		G	WIRE JUMPER LIST 20A4A	V	4001807	7	401200
A	X1001987		D	WIRE JUMPER LIST 20A4B	V	4001807	7	401300
A	X1002073			WASHER FLAT #2-REWORK	V	4001807	7	401400
B	X2001597		B	INSULATOR SPACER DETAIL	V	4001807	7	401500
C	3001148		B	PATTERN CKT MASK-AI-1	V	4001807	7	401600
C	3001149		B	PATTERN CKT MASK-AI-1	V	4001807	7	401700
C	3001150		B	PATTERN CKT MASK-AI-4	V	4001807	7	401800
C	3001151		B	PATTERN CKT MASK-AI-4	V	4001807	7	401900
C	3001152			AI-1 ARTWORK PELLET FIXT	V	4001807	7	402000
C	3001153			AI-1 ARTWORK PELLET FIXT	V	4001807	7	402100
C	3001154			AI-4 ARTWORK PELLET FIXT	V	4001807	7	402200
C	3001155			AI-4 ARTWORK PELLET FIXT	V	4001807	7	402300
C	3001185		B	PATTERN CKT MASK-AI-2	V	4001807	7	402400
C	3001186		B	PATTERN CKT MASK CSR BOT	V	4001807	7	402500
C	3001187		B	PATTERN CKT MASK CSR TOP	V	4001807	7	402600
C	X3001189			F-F ARTWORK PELLET FIXT	V	4001807	7	402700
C	X3001190			FF ARTWORK PELLET FIXT	V	4001807	7	402800
C	3001191		B	PATTERN CKT MASK F-F BOT	V	4001807	7	402900
C	3001192		B	PATTERN CKT MASK F-F TOP	V	4001807	7	403000
C	X3001193			AND-INVERTER TYPE 2	V	4001807	7	403100
C	X3001195			CNTR SHIFT REG BOT	V	4001807	7	403200
C	X3001196			CNTR SHIFT REG TOP	V	4001807	7	403300
C	3001203		B	PATTERN CKT MASK-AI-5	V	4001807	7	403400
C	X3001204			AI-5 ARTWORK PELLET FIXT	V	4001807	7	403500
C	3001210		B	PATTERN CKT MASK-AI-5	V	4001807	7	403600
C	X3001211			AI-5 ARTWORK PELLET FIXT	V	4001807	7	403700

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 130 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	3001221		B	PATTERN CKT MASK-AI-3	V	4001807	7	403800
C	X3001222			AI-3 ARTWORK PELLET FIXT	V	4001807	7	403900
C	3001227		B	PATTERN CKT MASK-EF	V	4001807	7	404000
C	3001228		C	PATTERN CKT MASK-OR INV	V	4001807	7	404100
C	3001229		C	PATTERN CKT MASK-OR INV	V	4001807	7	404200
C	X3001230			EF ARTWORK PELLET FIX	V	4001807	7	404300
C	X3001231			OR INVERTER ARTWORK PEL	V	4001807	7	404400
C	X3001232			OR INVERTER ARTWORK	V	4001807	7	404500
C	3001250		A	PATTERN CKT MASK-DDR TOP	V	4001807	7	404600
C	3001251		A	PATTERN CKT MASK-DDR BOT	V	4001807	7	404700
C	X3001252			DD TO ESR ARTWORK FIXT	V	4001807	7	404800
C	X3001253			DD TO ESR ARTWORK FIXT	V	4001807	7	404900
C	3001366			DDX ARTWORK PELLET FIXT	V	4001807	7	405000
C	3001367		A	PATTERN CKT MASK-DDX TOP	V	4001807	7	405100
C	X3001389			PR/RA ARTWORK PELLET FIX	V	4001807	7	405200
C	X3001390			PR/RA ARTWORK PELLET FIX	V	4001807	7	405300
C	3001391		A	PATTERN CKT MASK-PR/RA	V	4001807	7	405400
C	3001392		A	PATTERN CKT MASK-PR/RA	V	4001807	7	405500
C	X3001500		A	111 KC OSC ARTWORK BOT	V	4001807	7	405600
C	3001501		B	PATTERN CKT MASK-111 KC	V	4001807	7	405700
C	X3001502			111 KC OSC ARTWORK TOP	V	4001807	7	405800
C	3001503		A	PATTERN CKT MASK-111 KC	V	4001807	7	405900
C	3001507		A	PATTERN CKT MASK LD-1	V	4001807	7	406000
C	3001508		A	PATTERN CKT MASK LD-1	V	4001807	7	406100
D	X3001509			LINE DRIVER-1 ARTWORK	V	4001807	7	406200
C	3001521		A	PATTERN CKT MASK-I-1 TOP	V	4001807	7	406300
C	3001522		A	PATTERN CIRCUIT MASK I-1	V	4001807	7	406400
C	X3001523			I-1 ARTWORK PELLET TOP	V	4001807	7	406500
C	X3001524			I-1 ARTWORK PELLET BOT	V	4001807	7	406600
C	X3001549			IP ARTWORK PELLET FIXT	V	4001807	7	406700
C	X3001550			IS ARTWORK PELLET FIXT	V	4001807	7	406800
C	X3001551			IS ARTWORK PELLET FIXT	V	4001807	7	406900
C	3001552		A	PATTERN CKT MASK-I-S BOT	V	4001807	7	407000
C	3001553		A	PATTERN CKT MASK-I-S TOP	V	4001807	7	407100
C	3001554		A	PATTERN CKT MASK-IP TOP	V	4001807	7	407200
C	X3001608			LINE DRIVER-1 ARTWORK	V	4001807	7	407300
C	X3001777			SCREEN SILKSCREEN PROCES	V	4001807	7	407400
C	X3001778			SCREEN SILKSCREEN PROCES	V	4001807	7	407500
C	X3001779			SCREEN SILKSCREEN PROCES	V	4001807	7	407600
C	X3001780			SCREEN SILKSCREEN PROCES	V	4001807	7	407700

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 131 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	3001851		A	PATTERN CKT MASK-SPC-1	V	4001807	7	407800
C	3001852		A	PATTERN CKT MASK-SPC-1	V	4001807	7	407900
C	X3001853		A	PELLET FIXT ARTWORK	V	4001807	7	408000
C	X3001854		A	PELLET FIXT ARTWORK	V	4001807	7	408100
C	X3001862		A	PATTERN CKT MASK CSR-1	V	4001807	7	408200
C	3001863		A	PELLET FIXT ARTWORK CSR1	V	4001807	7	408300
D	X4001598		E	SUBCHASSIS SUBASSEMBLY	V	4001807	7	408400
B	X2001596		A	INSULATOR	V	4001598	8	408500
D	X4001418		E	SUBCHASSIS MACHINED	V	4001598	8	408600
D	X4001705		M	BOARD ASSY COMPONENT	V	4001807	7	408700
A	X1002072			WASHER FLAT #0-REWORK	V	4001705	8	408800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001705	8	408900
B	2001694			MODULE ASSY I-1 MC DAS	V	4001705	8	409000
C	X3001582			I-1 TOP ENV ASSY	V	2001694	9	409100
C	X3001583			I-1 BOT ENV ASSY	V	2001694	9	409200
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001705	8	409300
C	X3001557		C	F/F & CFF TOP ENV ASSY	V	2001697	9	409400
D	X4001590		C	MARKING-ENVELOPE MC DAS	V	3001557	10	409500
C	X3001558		B	F/F & CFF BOT ENV ASSY	V	2001697	9	409600
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001558	10	409700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001705	8	409800
D	X4001706		L	BOARD ASSY COMPONENT	V	4001807	7	409900
A	X1002072			WASHER FLAT #0-REWORK	V	4001706	8	410000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001706	8	410100
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001706	8	410200
C	X3001564		D	AI-3 ENV ASSY	V	2001685	9	410300
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001685	9	410400
D	X4001646		C	MOLD ENV OVERCOAT DETAIL	V	3001650	10	410500
B	2001688			MODULE ASSY OI MC DAS	V	4001706	8	410600
C	X3001573		E	OR INVERTER TOP ENV ASSY	V	2001688	9	410700
C	X3001574		D	OR INVERTER BOT ENV ASSY	V	2001688	9	410800
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001706	8	410900
B	2001698			MODULE ASSY LD-1 MC DAS	V	4001706	8	411000
C	X3001580			LINE DRIVER-1 TOP ENV	V	2001698	9	411100
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001580	10	411200
C	X3001581			LINE DRIVER-1 BOT ENV	V	2001698	9	411300
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001581	10	411400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001706	8	411500
A	X1002072			WASHER FLAT #0-REWORK	V	4001707	8	411600
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001707	8	411700

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 132 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	X3001565		E	AI-4 TOP ENV ASSY	V	2001686	9	411800
C	X3001566		F	AI-4 BOT ENV ASSY	V	2001686	9	411900
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001707	8	412000
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001707	8	412100
B	2001699			MODULE ASSY CSR MC DAS	V	4001707	8	412200
C	X3001559			COUNTER SHIFT REG TOP	V	2001699	9	412300
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001559	10	412400
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001560	10	412500
C	X3001560			COUNTER SHIFT REG BOT	V	2001699	9	412600
B	2001700			MODULE ASSY CSR-1 MC DAS	V	4001707	8	412700
C	X3001560			COUNTER SHIFT REG BOT	V	2001700	9	412800
C	X3001589		A	CSR-1 TOP ENV ASSY	V	2001700	9	412900
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001589	10	413000
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001707	8	413100
D	X4001707		H	BOARD ASSY COMPONENT	V	4001807	7	413200
D	X4001708		U	BOARD ASSY COMPONENT	V	4001807	7	413300
A	X1002072			WASHER FLAT #0-REWORK	V	4001708	8	413400
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001708	8	413500
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001708	8	413600
B	2001699			MODULE ASSY CSR MC DAS	V	4001708	8	413700
B	2001700			MODULE ASSY CSR-1 MC DAS	V	4001708	8	413800
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001708	8	413900
D	4001709		L	BOARD ASSY COMPONENT	V	4001807	7	414000
A	X1002072			WASHER FLAT #0-REWORK	V	4001709	8	414100
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001709	8	414200
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001709	8	414300
C	3001563		E	AND INVERTER TYPE 2 ENV	V	2001684	9	414400
C	X3001650		H	ENVELOPE ENCAPSULATION	V	2001684	9	414500
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001709	8	414600
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001709	8	414700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001709	8	414800
D	X4001714		J	BOARD ASSY COMPONENT	V	4001807	7	414900
A	X1002072			WASHER FLAT #0-REWORK	V	4001714	8	415000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001714	8	415100
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001714	8	415200
C	X3001567		C	AI-5 TOP ENV ASSY	V	2001687	9	415300
C	X3001568		D	AI-5 BOT ENV ASSY	V	2001687	9	415400
B	2001688			MODULE ASSY OI MC DAS	V	4001714	8	415500
B	2001699			MODULE ASSY CSR MC DAS	V	4001714	8	415600
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001714	8	415700

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 133 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	X4001716		L	BOARD ASSY COMPONENT	V	4001807	7	415800
A	X1002072			WASHER FLAT #0-REWORK	V	4001716	8	415900
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001716	8	416000
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001716	8	416100
C	3001561		C	AI-1 TOP ENV ASSY	V	2001683	9	416200
B	X2001649		B	ENVELOPE ENCAPSULATION	V	3001561	10	416300
C	X3001169		C	MOLD PELLET MODULE-AI	V	2001649	11	416400
C	X3001170		C	MOLD PELLET MODULE-FF	V	2001649	11	416500
C	X3001650		B	ENVELOPE ENCAPSULATION	V	3001561	10	416600
C	X3001562		D	AI-1 BOT ENV ASSY	V	2001683	9	416700
B	2001688			MODULE ASSY OI MC DAS	V	4001716	8	416800
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001716	8	416900
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001716	8	417000
D	X4001719		J	BOARD ASSY COMPONENT	V	4001807	7	417100
A	X1002072			WASHER FLAT #0-REWORK	V	4001719	8	417200
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001719	8	417300
B	2001688			MODULE ASSY OI MC DAS	V	4001719	8	417400
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001719	8	417500
B	2001701			MODULE ASSY EF MC DAS	V	4001719	8	417600
C	X3001571		B	EF TOP ENV ASSY	V	2001701	9	417700
C	X3001572		B	EF BOT ENV ASSY	V	2001701	9	417800
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001719	8	417900
D	X4001720		L	BOARD ASSY COMPONENT	V	4001807	7	418000
A	X1002072			WASHER FLAT #0-REWORK	V	4001720	8	418100
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001720	8	418200
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001720	8	418300
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001720	8	418400
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001720	8	418500
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001720	8	418600
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001720	8	418700
D	X4001721		R	BOARD ASSY COMPONENT	V	4001807	7	418800
A	X1002072			WASHER FLAT #0-REWORK	V	4001721	8	418900
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001721	8	419000
B	2001688			MODULE ASSY OI MC DAS	V	4001721	8	419100
B	2001691			MODULE ASSY DDX MC DAS	V	4001721	8	419200
C	X3001579		A	DDX ENV ASSY	V	2001691	9	419300
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001691	9	419400
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001721	8	419500
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001721	8	419600
D	X4001722		E	BOARD ASSY COMPONENT	V	4001807	7	419700

JPL 1357 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 134 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	X1002072			WASHER FLAT #0-REWORK	V	4001722	8	419800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001722	8	419900
B	2001691			MODULE ASSY DDX MC DAS	V	4001722	8	420000
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001722	8	420100
D	X4001730		T	BOARD ASSY COMPONENT	V	4001807	7	420200
A	X1002072			WASHER FLAT #0-REWORK	V	4001730	8	420300
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001730	8	420400
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001730	8	420500
B	2001701			MODULE ASSY EF MC DAS	V	4001730	8	420600
B	2002066			MODULE ASSY XFF MC DAS	V	4001730	8	420700
C	X3001557		C	F/F & CFF TOP ENV ASSY	V	2002066	9	420800
C	X3001558		B	F/F & CFF BOT ENV ASSY	V	2002066	9	420900
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001730	8	421000
D	X4001732		AB	BOARD ASSY COMPONENT	V	4001807	7	421100
A	X1002072			WASHER FLAT #0-REWORK	V	4001732	8	421200
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001732	8	421300
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001732	8	421400
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001732	8	421500
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001732	8	421600
B	2001688			MODULE ASSY OI MC DAS	V	4001732	8	421700
B	2001693			MODULE ASSY PR/RA MC DAS	V	4001732	8	421800
C	X3001577			PR/RA TOP ENV ASSY	V	2001693	9	421900
C	X3001578		A	PR/RA BOT ENV ASSY	V	2001693	9	422000
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001732	8	422100
D	X4001733		R	BOARD ASSY COMPONENT	V	4001807	7	422200
A	X1002072			WASHER FLAT #0-REWORK	V	4001733	8	422300
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001733	8	422400
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001733	8	422500
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001733	8	422600
B	2001688			MODULE ASSY OI MC DAS	V	4001733	8	422700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001733	8	422800
D	X4001746		U	BOARD ASSY COMPONENT	V	4001807	7	422900
A	X1002072			WASHER FLAT #0-REWORK	V	4001746	8	423000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001746	8	423100
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001746	8	423200
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001746	8	423300
B	2001688			MODULE ASSY OI MC DAS	V	4001746	8	423400
B	2001701			MODULE ASSY EF MC DAS	V	4001746	8	423500
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001746	8	423600
D	X4001748		G	BOARD ASSY COMPONENT	V	4001807	7	423700

JPL 1357 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 135 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	X1002072			WASHER FLAT #0-REWORK	V	4001748	8	423800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001748	8	423900
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001748	8	424000
B	2001694			MODULE ASSY I-1 MC DAS	V	4001748	8	424100
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001748	8	424200
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001748	8	424300
D	X4001749		F	BOARD ASSY COMPONENT	V	4001807	7	424400
A	X1002072			WASHER FLAT #0-REWORK	V	4001749	8	424500
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001749	8	424600
B	2001690			MODULE ASSY DDR MC DAS	V	4001749	8	424700
C	X3001569		A	DD TO ESR TOP ENV ASSY	V	2001690	9	424800
C	X3001570		A	DD TO ESR BOT ENV ASSY	V	2001690	9	424900
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001749	8	425000
B	2001699			MODULE ASSY CSR MC DAS	V	4001749	8	425100
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001749	8	425200
D	X4001760		J	BOARD ASSY COMPONENT	V	4001807	7	425300
A	X1002072			WASHER FLAT #0-REWORK	V	4001760	8	425400
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001760	8	425500
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001760	8	425600
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001760	8	425700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001760	8	425800
D	X4001761		K	BOARD ASSY COMPONENT	V	4001807	7	425900
A	X1002072			WASHER FLAT #0-REWORK	V	4001761	8	426000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001761	8	426100
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001761	8	426200
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001761	8	426300
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001761	8	426400
D	X4001775		J	BOARD ASSY COMPONENT	V	4001807	7	426500
A	X1002072			WASHER FLAT #0-REWORK	V	4001775	8	426600
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001775	8	426700
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001775	8	426800
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001775	8	426900
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001775	8	427000
B	2001688			MODULE ASSY OI MC DAS	V	4001775	8	427100
B	2001694			MODULE ASSY I-1 MC DAS	V	4001775	8	427200
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001775	8	427300
D	X4001776		P	BOARD ASSY COMPONENT	V	4001807	7	427400
A	X1002072			WASHER FLAT #0-REWORK	V	4001776	8	427500
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001776	8	427600
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001776	8	427700

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 136 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	2001692			MODULE ASSY 111 KC DAS	V	4001776	8	427800
C	X3001575		C	111 KC CSC TOP ENV ASSY	V	2001692	9	427900
C	X3001576		B	111 KC BOT ENV ASSY	V	2001692	9	428000
B	2001695			MODULE ASSY I-S MC DAS	V	4001776	8	428100
C	X3001585		A	IS INTERFACE TOP ENV ASY	V	2001695	9	428200
C	X3001586		A	IS INTERFACE BOT ENV ASY	V	2001695	9	428300
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001776	8	428400
D	X4001786		G	BOARD ASSY COMPONENT	V	4001807	7	428500
A	X1002072			WASHER FLAT #0-REWORK	V	4001786	8	428600
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001786	8	428700
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001786	8	428800
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001786	8	428900
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001786	8	429000
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001786	8	429100
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001786	8	429200
D	X4001787		M	BOARD ASSY COMPONENT	V	4001807	7	429300
A	X1002072			WASHER FLAT #0-REWORK	V	4001787	8	429400
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001787	8	429500
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001787	8	429600
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001787	8	429700
B	2001688			MODULE ASSY OI MC DAS	V	4001787	8	429800
B	2001696			MODULE ASSY I-P MC DAS	V	4001787	8	429900
C	X3001584			IP INTERFACE ENV ASSY	V	2001696	9	430000
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001696	9	430100
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001787	8	430200
D	X4001804		L	BOARD ASSY COMPONENT	V	4001807	7	430300
A	X1002072			WASHER FLAT #0-REWORK	V	4001804	8	430400
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001804	8	430500
B	2001689			MODULE ASSY SPC-1 MC DAS	V	4001804	8	430600
C	X3001587			SPC-1 TOP ENV ASSY	V	2001689	9	430700
C	X3001588			SPC-1 BOT ENV ASSY	V	2001689	9	430800
B	2001692			MODULE ASSY 111 KC DAS	V	4001804	8	430900
B	2001696			MODULE ASSY I-P MC DAS	V	4001804	8	431000
C	X3001789			MODULE ASSY-CORDWOOD	V	4001804	8	431100
C	3001790		A	MOD ASSY CORDWOOD 21.4KC	V	4001804	8	431200
D	X4001540		C	BD COMPONENT DETAIL-ASSY	V	4001804	8	431300
D	4003438		D	TRAY 20A3 SIDE	V	4001807	7	431310
D	X4003390		A	TRAY 20A4 SIDE B	V	4001807	7	431315
D	X4003391		B	TRAY 20A2 SIDE A	V	4001807	7	431316
D	X4003392			TRAY 20A4 SIDE A	V	4001807	7	431317

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 137 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	X4003393			TRAY 20AP SIDE B	V	4001807	7	431318
D	4003437			TRAY 20AB SIDE A	V	4001807	7	431319
D	4801207	CD	B	RT DAS LOGIC 20A2	LX	4801216	5	431400
B	90433			SURFACE TREATMENT	L	4801207	6	431500
B	MCIC1		C	MC DAS INTERFACE CIRCUIT	V	4801207	6	431800
B	MCIC2		A	MC DAS INTERFACE CIRCUIT	V	4801207	6	431900
B	MCIC3		B	MC DAS INTERFACE CIRCUIT	V	4801207	6	432000
B	MCIC4		A	MC DAS INTERFACE CIRCUIT	V	4801207	6	432100
D	4001807		B	SUBCHASSIS ASSEMBLY	V	4801207	6	432200
B	MC023		C	MODULE ASSIGN FLIGHT	V	4001807	7	432300
B	MC106		B	FLIP FLOP MODULE 4FF&XFF	V	4001807	7	432400
B	MC109		C	COUNTER/SHIFT REG MODULE	V	4001807	7	432500
B	MC111			DC TO ESR	V	4001807	7	432600
A	MC112		C	AND INVERTER TYPE 1-1	V	4001807	7	432700
A	MC113		D	AND INVERTER TYPE 2-1	V	4001807	7	432800
A	MC114		A	AND INVERTER TYPE 3-1	V	4001807	7	432900
A	MC115		B	AND INVERTER TYPE 4-1	V	4001807	7	433000
A	MC116		A	DCK	V	4001807	7	433100
A	MC117		B	AND INVERTER TYPE 5-1	V	4001807	7	433200
A	MC118		A	OR INVERTER TYPE -1	V	4001807	7	433300
A	MC119		A	EMITTER FOLLOWER	V	4001807	7	433400
B	MC121		C	111.111 KC OSCILLATOR	V	4001807	7	433500
A	MC124		B	IP INTERFACE	V	4001807	7	433600
A	MC125		B	IS INTERFACE	V	4001807	7	433700
A	MC126		A	II INTERFACE	V	4001807	7	433800
A	MC127		A	LC 1	V	4001807	7	433900
B	MC130		A	2RESET AMP &PWR-ON SCHEM	V	4001807	7	434000
B	MC133		A	FLIP FLOP MODULE SFF	V	4001807	7	434100
A	MC134		C	21.4 KC MV	V	4001807	7	434200
A	MC141		C	NRT PWR-ON RESET CKT	V	4001807	7	434300
A	MC142			SPC-1	V	4001807	7	434400
B	MC143		C	COUNTER/SHIFT REG MODULE	V	4001807	7	434500
A	MC144		C	AND INVERTER TYPE 2-2	V	4001807	7	434600
A	MC145		C	AND INVERTER TYPE 2-3	V	4001807	7	434700
A	MC146		A	AND INVERTER TYPE 3-2	V	4001807	7	434800
A	MC147		B	AND INVERTER TYPE 3-3	V	4001807	7	434900
A	MC148		A	AND INVERTER TYPE 3-4	V	4001807	7	435000
A	MC149		B	AND INVERTER TYPE 3-5	V	4001807	7	435100
A	MC150		B	AND INVERTER TYPE 4-2	V	4001807	7	435200
A	MC151		C	AND INVERTER TYPE 4-3	V	4001807	7	435300

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 138 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	MC152		B	AND INVERTER TYPE 4-4	V	4001807	7	435400
A	MC153		B	AND INVERTER TYPE 5-2	V	4001807	7	435500
A	MC154		C	AND INVERTER TYPE 5-3	V	4001807	7	435600
A	MC155		B	OR INVERTER TYPE -2	V	4001807	7	435700
A	MC156			OR INVERTER TYPE -3	V	4001807	7	435800
A	MC157		B	AND INVERTER TYPE 1-2	V	4001807	7	435900
A	MC158		B	AND INVERTER TYPE 1-3	V	4001807	7	436000
B	600-403		J	MC TRAPPED RADIATION	V	4001807	7	436100
D	600-449		J	REAL TIME A/D ACCUMULATE	V	4001807	7	436200
D	600-488		L	NRT BUFFER&TAPE CONTROLS	V	4001807	7	436300
D	600-489		G	NRT DAS SEQUENCER	V	4001807	7	436400
D	600-491		N	NRT DAS ENCOUNTER	V	4001807	7	436500
D	600-492		T	NRT DAS CNTR SHIFT REG	V	4001807	7	436600
D	600-499		J	REAL TIME A/D ACCUMULAT	V	4001807	7	436700
D	600-500		M	REAL TIME TIMING&CONTROL	V	4001807	7	436800
D	600-678		B	TRAPPED RADIATION	V	4001807	7	436810
D	600-686		B	NRT BUFFER & TAPE CONT	V	4001807	7	436815
D	600-687		B	NRT DAS SEQUENCER	V	4001807	7	436820
D	600-688		B	NRT DAS ENCOUNTER	V	4001807	7	436825
D	600-689		B	NRT DAS COUNTER SHIFT	V	4001807	7	436830
D	600-690		B	REAL TIME A/D	V	4001807	7	436835
D	600-691		B	REAL TIME TIMING & CONT	V	4001807	7	436840
A	X1001976	LM	G	HARNESS 20A2A MC DAS	V	4001807	7	436900
A	X1001977	LM	D	HARNESS 20A2B MC DAS	V	4001807	7	437000
A	X1001978	LM	G	HARNESS 20A3A MC DAS	V	4001807	7	437100
A	X1001979	LM	A	HARNESS 20A3B MC DAS	V	4001807	7	437200
A	X1001980	LM	G	HARNESS 20A4A MC DAS	V	4001807	7	437300
A	X1001981	LM	G	HARNESS 20A4B MC DAS	V	4001807	7	437400
A	X1001982		P	WIRE JUMPER LIST 20A2A	V	4001807	7	437500
A	X1001983		F	WIRE JUMPER LIST 20A2B	V	4001807	7	437600
A	X1001984		E	WIRE JUMPER LIST 20A3B	V	4001807	7	437700
A	X1001985		B	WIRE JUMPER LIST 20A3B	[illegible]	[illegible]	[illegible]	[illegible]
A	X1001986		G	WIRE JUMPER LIST 20A4 A	V	4001807	7	437900
A	X1001987		D	WIRE JUMPER LIST 20A4B	V	4001807	7	438000
A	X1002073			WASHER FLAT #2-REWORK	V	4001807	7	438100
B	X2001597		B	INSULATOR SPACER DETAIL	V	4001807	7	438200
C	3001148		B	PATTERN CKT MASK-AI-1	V	4001807	7	438300
C	3001149		B	PATTERN CKT MASK-AI-1	V	4001807	7	438400
C	3001150		B	PATTERN CKT MASK-AI-4	V	4001807	7	438500
C	3001151		B	PATTERN CKT MASK-AI-4	V	4001807	7	438600

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 139 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	3001152			AI-1 ARTWORK PELLET FIXT	V	4001807	7	438700
C	3001153			AI-1 ARTWORK PELLET FIXT	V	4001807	7	438800
C	3001154			AI-4 ARTWORK PELLET FIXT	V	4001807	7	438900
C	3001155			AI-4 ARTWORK PELLET FIXT	V	4001807	7	439000
C	3001185		B	PATTERN CKT MASK-AI-2	V	4001807	7	439100
C	3001186		B	PATTERN CKT MASK CSR BOT	V	4001807	7	439200
C	3001187		B	PATTERN CKT MASK CSR TOP	V	4001807	7	439300
C	X3001189			F-F ARTWORK PELLET FIXT	V	4001807	7	439400
C	X3001190			FF ARTWORK PELLET FIXT	V	4001807	7	439500
C	3001191		B	PATTERN CKT MASK F-F BOT	V	4001807	7	439600
C	3001192		B	PATTERN CKT MASK F-F TOP	V	4001807	7	439700
C	X3001193			AND INVERTER TYPE 2	V	4001807	7	439800
C	X3001195			CNTR SHIFT REG BOT	V	4001807	7	439900
C	X3001196			CNTR SHIFT REG TOP	V	4001807	7	440000
C	3001203		B	PATTERN CKT MASK-AI-5	V	4001807	7	440100
C	X3001204			AI-5 ARTWORK PELLET FIXT	V	4001807	7	440200
C	3001210		B	PATTERN CKT MASK-AI-5	V	4001807	7	440300
C	X3001211			AI-5 ARTWORK PELLET FIXT	V	4001807	7	440400
C	3001221		B	PATTERN CKT MASK-AI-3	V	4001807	7	440500
C	X3001222			AI-3 ARTWORK PELLET FIXT	V	4001807	7	440600
C	3001227		B	PATTERN CKT MASK-EF	V	4001807	7	440700
C	3001228		C	PATTERN CKT MASK-OR INV	V	4001807	7	440800
C	3001229		C	PATTERN CKT MASK-OR INV	V	4001807	7	440900
C	X3001230			EF ARTWORK PELLET FIX	V	4001807	7	441000
C	X3001231			OR INVERTER ARTWORK PEL	V	4001807	7	441100
C	X3001232			OR INVERTER ARTWORK	V	4001807	7	441200
C	3001250		A	PATTERN CKT MASK-DDR TOP	V	4001807	7	441300
C	3001251		A	PATTERN CKT MASK-DDR BOT	V	4001807	7	441400
C	X3001252			DD TO ESR ARTWORK FIXT	V	4001807	7	441500
C	X3001253			DD TO ESR ARTWORK FIXT	V	4001807	7	441600
C	3001366			DDX ARTWORK PELLET FIXT	V	4001807	7	441700
C	3001367		A	PATTERN CKT MASK-DDX TOP	V	4001807	7	441800
C	X3001389			PR/RA ARTWORK PELLET FIX	V	4001807	7	441900
C	X3001390			PR/RA ARTWORK PELLET FIX	V	4001807	7	442000
C	3001391		A	PATTERN CKT MASK-PR/RA	V	4001807	7	442100
C	3001392		A	PATTERN CKT MASK-PR/RA	V	4001807	7	442200
C	X3001500		A	111 KC OSC ARTWORK BOT	V	4001807	7	442300
C	3001501		B	PATTERN CKT MASK-111 KC	V	4001807	7	442400
C	X3001502			111 KC OSC ARTWORK TOP	V	4001807	7	442500
C	3001503		A	PATTERN CKT MASK-111 KC	V	4001807	7	442600

JPL 1287 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 140 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	3001507		A	PATTERN CKT MASK LD-1	V	4001807	7	442700
C	3001508		A	PATTERN CKT MASK LD-1	V	4001807	7	442800
D	X3001509			LINE DRIVER-1 ARTWORK	V	4001807	7	442900
C	3001521		A	PATTERN CKT MASK I-1 TOP	V	4001807	7	443000
C	3001522		A	PATTERN CIRCUIT MASK I-1	V	4001807	7	443100
C	X3001523			I-1 ARTWORK PELLET TOP	V	4001807	7	443200
C	X3001524			I-1 ARTWORK PELLET BOT	V	4001807	7	443300
C	X3001549			IP ARTWORK PELLET FIXT	V	4001807	7	443400
C	X3001550			IS ARTWORK PELLET FIXT	V	4001807	7	443500
C	X3001551			IS ARTWORK PELLET FIXT	V	4001807	7	443600
C	3001552		A	PATTERN CKT MASK-I-S BOT	V	4001807	7	443700
C	3001553		A	PATTERN CKT MASK I-S TOP	V	4001807	7	443800
C	3001554		A	PATTERN CKT MASK-IP TOP	V	4001807	7	443900
D	X3001608			LINE DRIVER-1 ARTWORK	V	4001807	7	444000
C	X3001777			SCREEN SILKSCREEN PROCES	V	4001807	7	444100
C	X3001778			SCREEN SILKSCREEN PROCES	V	4001807	7	444200
C	X3001779			SCREEN SILKSCREEN PROCES	V	4001807	7	444300
C	X3001780			SCREEN SILKSCREEN PROCES	V	4001807	7	444400
C	3001851		A	PATTERN CKT MASK SPC-1	V	4001807	7	444500
C	3001852		A	PATTERN CKT MASK-SPC-1	V	4001807	7	444600
C	X3001853		A	PELLET FIXT ARTWORK	V	4001807	7	444700
C	X3001854		A	PELLET FIXT ARTWORK	V	4001807	7	444800
C	3001862		A	PATTERN CKT MASK CSR-1	V	4001807	7	444900
C	3001863		A	PELLET FIXT ARTWORK CSR1	V	4001807	7	445000
D	X4001598		E	SUBCHASSIS SUBASSEMBLY	V	4001807	7	445100
B	X2001596		A	INSULATOR	V	4001598	8	445200
D	X4001418		E	SUBCHASSIS MACHINED	V	4001598	8	445300
D	X4001705		M	BOARD ASSY COMPONENT	V	4001807	7	445400
A	X1002072			WASHER FLAT #0-REWORK	V	4001705	8	445500
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001705	8	445600
B	2001694			MODULE ASSY I-1 MC DAS	V	4001705	8	445700
C	X3001582			I-1 TOP ENV ASSY	V	2001694	9	445800
C	X3001583			I-1 BOT ENV ASSY	V	2001694	9	445900
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001705	8	446000
C	X3001557		C	F/F & CFF TOP ENV ASSY	V	2001697	9	446100
D	X4001590		C	MARKING-ENVELOPE MC DAS	V	3001557	10	446200
C	X3001558		B	F/F & CFF BOT ENV ASSY	V	2001697	9	446300
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001558	10	446400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001705	8	446500
D	X4001706		L	BOARD ASSY COMPONENT	V	4001807	7	446600

JPL 1287 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 141 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	X1002072			WASHER FLAT #0-REWORK	V	4001706	8	446700
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001706	8	446800
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001706	8	446900
C	X3001564		D	AI-3 ENV ASSY	V	2001685	9	447000
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001685	9	447100
D	X4001646		C	MOLD ENV OVERCOAT DETAIL	V	3001650	10	447200
B	2001688			MODULE ASSY OI MC DAS	V	4001706	8	447300
C	X3001573		E	OR INVERTER TOP ENV ASSY	V	2001688	9	447400
C	X3001574		D	OR INVERTER BOT ENV ASSY	V	2001688	9	447500
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001706	8	447600
B	2001698			MODULE ASSY LD-1 MC DAS	V	4001706	8	447700
C	X3001580			LINE DRIVER-1 TOP ENV	V	2001698	9	447800
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001580	10	447900
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001581	10	448000
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001706	8	448100
A	X1002072			WASHER FLAT #0-REWORK	V	4001707	8	448200
C	X3001581			LINE DRIVER-1 BOT ENV	V	2001698	9	448300
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001707	8	448400
C	X3001565		E	AI-4 TOP ENV ASSY	V	2001686	9	448500
C	X3001566		F	AI-4 BOT ENV ASSY	V	2001686	9	448600
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001707	8	448700
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001707	8	448800
B	2001699			MODULE ASSY CSR MC DAS	V	4001707	8	448900
C	X3001559			COUNTER SHIFT REG TOP	V	2001699	9	449000
D	4001590		C	MARKING ENVELOPE MC DAS	V	3001559	10	449100
C	X3001560			COUNTER SHIFT REG BOT	V	2001699	9	449200
D	4001590		C	MARKING ENVELOPE MC DAS	V	3001560	10	449300
B	2001700			MODULE ASSY CSR-1 MC DAS	V	4001707	8	449400
C	X3001560			COUNTER SHIFT REG BOT	V	2001700	9	449500
C	X3001589		A	CSR-1 TOP ENV ASSY	V	2001700	9	449600
D	4001590		C	MARKING ENVELOPE MC DAS	V	3001589	10	449700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001707	8	449800
D	X4001707		H	BOARD	V	4001807	7	449900
D	X4001708		U	BOARD ASSY COMPONENT	V	4001807	7	450000
A	X1002072			WASHER FLAT #0-REWORK	V	4001708	8	450100
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001708	8	450200
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001708	8	450300
B	2001699			MODULE ASSY CSR MC DAS	V	4001708	8	450400
B	2001700			MODULE ASSY CSR-1 MC DAS	V	4001708	8	450500
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001708	8	450600

JPL 1387 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 142 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4001709		L	BOARD ASSY COMPONENT	V	4001807	7	450700
A	X1002072			WASHER FLAT #0-REWORK	V	4001709	8	450800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001709	8	450900
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001709	8	451000
C	3001563		E	AND-INVERTER TYPE 2 ENV	V	2001684	9	451100
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001684	9	451200
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001709	8	451300
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001709	8	451400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001709	8	451500
D	4001714		J	BOARD ASSY COMPONENT	V	4001807	7	451600
A	X1002072			WASHER FLAT #0-REWORK	V	4001714	8	451700
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001714	8	451800
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001714	8	451900
C	X3001567		D	AI-5 TOP ENV ASSY	V	2001687	9	452000
C	X3001568		D	AI-5 BOT ENV ASSY	V	2001687	9	452100
B	2001688			MODULE ASSY OI MC DAS	V	4001714	8	452200
B	2001699			MODULE ASSY CSR MC DAS	V	4001714	8	452300
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001714	8	452400
D	4001716		L	BOARD ASSY COMPONENT	V	4001807	7	452500
A	X1002072			WASHER FLAT #0-REWORK	V	4001716	8	452600
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001716	8	452700
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001716	8	452800
C	3001561		C	AI-1 TOP ENV ASSY	V	2001683	9	452900
B	X2001649		B	ENVELOPE ENCAPSULATION	V	3001561	10	453000
C	X3001169		C	MOLD PELLET MODULE-AI	V	2001649	11	453100
C	X3001170		C	MOLD PELLET MODULE-FF	V	2001649	11	453200
C	X3001650		B	ENVELOPE ENCAPSULATION	V	3001561	10	453300
C	X3001562		D	AI-1 BOT ENV ASSY	V	2001683	9	453400
B	2001688			MODULE ASSY OI MC DAS	V	4001716	8	453500
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001716	8	453600
D	X4001719		H	BOARD ASSY COMPONENT	V	4001807	7	453700
A	X1002072			WASHER FLAT #0-REWORK	V	4001719	8	453800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001719	8	453900
B	2001688			MODULE ASSY OI MC DAS	V	4001719	8	454000
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001719	8	454100
B	2001701			MODULE ASSY EF MC DAS	V	4001719	8	454200
C	X3001571		B	EF TOP ENV ASSY	V	2001701	9	454300
C	X3001572		B	EF BOT ENV ASSY	V	2001701	9	454400
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001716	8	454500
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001719	8	454600

JPL 1387 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 143 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	X4001720		L	BOARD ASSY COMPONENT	V	4001807	7	454700
A	X1002072			WASHER FLAT #0-REWORK	V	4001720	8	454800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001720	8	454900
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001720	8	455000
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001720	8	455100
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001720	8	455200
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001720	8	455300
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001720	6	455400
D	X4001721		R	BD ASSY COMPONENT 282	V	4001807	7	455500
A	X1002072			WASHER FLAT #0-REWORK	V	4001721	8	455600
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001721	8	455700
B	2001688			MODULE ASSY OI MC DAS	V	4001721	8	455800
B	2001691			MODULE ASSY DDX MC DAS	V	4001721	8	455900
C	X3001579		A	DDX ENV ASSY	V	2001691	9	456000
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001691	9	456100
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001721	8	456200
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001721	8	456300
D	S4001722		E	BOARD ASSY COMPONENT	V	4001807	7	456400
A	X1002072			WASHER FLAT #0-REWORK	V	4001722	8	456500
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001722	8	456600
B	2001691			MODULE ASSY DDX MC DAS	V	4001722	8	456700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001722	8	456800
D	X4001730		T	BOARD ASSY COMPONENT	V	4001807	7	456900
A	X1002072			WASHER FLAT #0-REWORK	V	4001730	8	457000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001730	8	457100
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001730	8	457200
B	2001701			MODULE ASSY EF MC DAS	V	4001730	8	457300
B	2002066			MODULE ASSY XFF MC DAS	V	4001730	8	457400
C	X3001557		C	F/F & CFF TOP ENV ASSY	V	2002066	9	457500
C	X3001558		B	F/F & CFF BOT ENV ASSY	V	2002066	9	457600
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001730	8	457700
D	X4001732		AB	BOARD ASSY COMPONENT	V	4001807	7	457800
A	X1002072			WASHER FLAT #0-REWORK	V	4001732	8	457900
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001732	8	458000
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001732	8	458100
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001732	8	458200
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001732	8	458300
B	2001688			MODULE ASSY OI MC DAS	V	4001732	8	458400
B	2001693			MODULE ASSY PR/RA MC DAS	V	4001732	8	458500
C	X3001577			PR/RA TCP ENV ASSY	V	2001693	9	458600

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 144 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	X3001578		A	PR/RA BOT ENV ASSY	V	2001693	9	458700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001732	8	458800
D	X4001733		R	BOARD ASSY COMPONENT	V	4001807	7	458900
A	X1002072			WASHER FLAT #0-REWORK	V	4001733	8	459000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001733	8	459100
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001733	8	459200
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001733	8	459300
B	2001688			MODULE ASSY OI MC DAS	V	4001733	8	459400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001733	8	459500
D	X4001746		U	BOARD ASSY COMPONENT	V	4001807	7	459600
A	X1002072			WASHER FLAT #0-REWORK	V	4001746	8	459700
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001746	8	459800
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001746	8	459900
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001746	8	460000
B	2001688			MODULE ASSY OI MC DAS	V	4001746	8	460100
B	2001701			MODULE ASSY EF MC DAS	V	4001746	8	460200
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001746	8	460300
D	X4001748		G	BOARD ASSY COMPONENT	V	4001807	7	460400
A	X1002072			WASHER FLAT #0-REWORK	V	4001748	8	460500
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001748	8	460600
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001748	8	460700
B	2001694			MODULE ASSY I-1 MC DAS	V	4001748	8	460800
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001748	8	460900
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001748	8	461000
D	X4001749		F	BOARD ASSY COMPONENT	V	4001807	7	461100
A	X1002072			WASHER FLAT #0-REWORK	V	4001749	8	461200
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001749	8	461300
B	2001690			MODULE ASSY DDR MC DAS	V	4001749	8	461400
C	X3001569		A	DD TO ESR TOP ENV ASSY	V	2001690	9	461500
C	X3001570		A	DD TO ESR BOT ENV ASSY	V	2001690	9	461600
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001749	8	461700
B	2001699			MODULE ASSY CSR MC DAS	V	4001749	8	461800
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001749	8	461900
D	X4001760		J	BOARD ASSY COMPONENT	V	4001807	7	462000
A	X1002072			WASHER FLAT #0-REWORK	V	4001760	8	462100
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001760	8	462200
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001760	8	462300
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001760	8	462400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001760	8	462500
D	X4001761		K	BOARD ASSY COMPONENT	V	4001807	7	462600

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 145 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	X1002072			WASHER FLAT #0-REWORK	V	4001761	8	462700
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001761	8	462800
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001761	8	462900
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001761	8	463000
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001761	8	463100
D	X4001775		J	BOARD ASSY COMPONENT	V	4001807	7	463200
A	X1002072			WASHER FLAT #0-REWORK	V	4001775	8	463300
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001775	8	463400
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001775	8	463500
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001775	8	463600
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001775	8	463700
B	2001688			MODULE ASSY OI MC DAS	V	4001775	8	463800
B	2001694			MODULE ASSY I-1 MC DAS	V	4001775	8	463900
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001775	8	464000
D	X4001776		P	BOARD ASSY COMPONENT	V	4001807	7	464100
A	X1002072			WASHER FLAT #0-REWORK	V	4001776	8	464200
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001776	8	464300
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001776	8	464400
B	2001692			MODULE ASSY 111 KC DAS	V	4001776	8	464500
C	X3001575		C	111 KC CSC TOP ENV ASSY	V	2001692	9	464600
C	X3001576		B	111 KC BOT ENV ASSY	V	2001692	9	464700
B	2001695			MODULE ASSY I-S MC DAS	V	4001776	8	464800
C	X3001585		A	IS INTERFACE TOP ENV ASY	V	2001695	9	464900
C	X3001586		A	IS INTERFACE BOT ENV ASY	V	2001695	9	465000
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001776	8	465100
D	X4001786		G	BOARD ASSY COMPONENT	V	4001807	7	465200
A	X1002072			WASHER FLAT #0-REWORK	V	4001786	8	465300
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001786	8	465400
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001786	8	465500
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001786	8	465600
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001786	8	465700
B	2001697			MODULE ASSY 4FFEXFF DAS	V	4001786	8	465800
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001786	8	465900
D	X4001787		M	BOARD ASSY COMPONENT	V	4001807	7	466000
A	X1002072			WASHER FLAT #0-REWORK	V	4001787	8	466100
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001787	8	466200
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001787	8	466300
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001787	8	466400
B	2001688			MODULE ASSY OI MC DAS	V	4001787	8	466500
B	2001696			MODULE ASSY I-P MC DAS	V	4001787	8	466600

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 146 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	X3001584			IP INTERFACE ENV ASSY	V	2001696	9	466700
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001696	9	466800
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001787	8	466900
D	X4001804		L	BOARD ASSY COMPONENT	V	4001807	7	467000
A	X1002072			WASHER FLAT #0-REWORK	V	4001804	8	467100
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001804	8	467200
B	2001689			MODULE ASSY SPC-1 MC DAS	V	4001804	8	467300
C	X3001587			SPC-1 TOP ENV ASSY	V	2001689	9	467400
C	X3001588			SPC-1 BOT ENV ASSY	V	2001689	9	467500
B	2001692			MODULE ASSY 111 KC DAS	V	4001804	8	467600
B	2001696			MODULE ASSY I-P MC DAS	V	4001804	8	467700
C	X3001789			MODULE ASSY-CORDWOOD	V	4001804	8	467800
C	3001790		A	MOD ASSY-CORDWOOD 21.4KC	V	4001804	8	467900
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001804	8	468000
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001787	8	468100
D	X4003390		A	TRAY 20A4 SIDE B	V	4001807	7	468104
D	X4003391		B	TRAY 20A2 SIDE A	V	4001807	7	468105
D	X4003392			TRAY 20A4 SIDE A	V	4001807	7	468106
D	X4003393			TRAY 20A2 SIDE B	V	4001807	7	468107
D	4003437			TRAY 20A3 SIDE A	V	4001807	7	468108
D	4003438		C	TRAY 20A3 SIDE	V	4001807	7	468110
D	4801208	CD	B	RT DAS LOGIC 20A4	LX	4801216	5	468200
B	90433			SURFACE TREATMENT	L	4801208	6	468300
B	MCIC1		C	MC DAS INTERFACE CIRCUIT	V	4801208	6	468600
B	MCIC2		A	MC DAS INTERFACE CIRCUIT	V	4801208	6	468700
B	MCIC3		B	MC DAS INTERFACE CIRCUIT	V	4801208	6	468800
B	MCIC4		A	MC DAS INTERFACE CIRCUIT	V	4801208	6	468900
D	4001807		B	SUBCHASSIS ASSEMBLY	V	4801208	6	469000
B	MC106		B	FLIP FLOP MODULE 4FFEXFF	V	4001807	7	469100
B	MC109		C	COUNTER/SHIFT REG MODULE	V	4001807	7	469200
[illegible]	[illegible]			OR TO ESB	V	4001807	7	469300
A	MC112		C	AND INVERTER TYPE 1-1	V	4001807	7	469400
A	MC113		D	AND INVERTER TYPE 2-1	V	4001807	7	469500
A	MC114		A	AND INVERTER TYPE 3-1	V	4001807	7	469600
A	MC115		B	AND INVERTER TYPE 4-1	V	4001807	7	469700
A	MC116		A	DCX	V	4001807	7	469800
A	MC117		B	AND INVERTER TYPE 5-1	V	4001807	7	469900
A	MC118		A	OR INVERTER TYPE -1	V	4001807	7	470000
A	MC119		A	EMITTER FOLLOWER	V	4001807	7	470100
B	MC121		C	111.111 KC OSCILLATOR	V	4001807	7	470200

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 147 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	MC124		B	IP INTERFACE	V	4001807	7	470300
A	MC125		B	IS INTERFACE	V	4001807	7	470400
A	MC126		A	II INTERFACE	V	4001807	7	470500
A	MC127		A	LC-1	V	4001807	7	470600
B	MC130		A	2RESET AMP &PWR-ON SCHEM	V	4001807	7	470700
B	MC133		A	FLIP FLOP MODULE SEF	V	4001807	7	470800
A	MC134		C	21-4 KC MV	V	4001807	7	470900
A	MC141		C	NRT PWR-ON RESET CKT	V	4001807	7	471000
A	MC142			SPC-1	V	4001807	7	471100
B	MC143		C	COUNTER/SHIFT REG MODULE	V	4001807	7	471200
A	MC144		C	AND INVERTER TYPE 2-2	V	4001807	7	471300
A	MC145		C	AND INVERTER TYPE 2-3	V	4001807	7	471400
A	MC146		A	AND INVERTER TYPE 3-2	V	4001807	7	471500
A	MC147		B	AND INVERTER TYPE 3-3	V	4001807	7	471600
A	MC148		A	AND INVERTER TYPE 3-4	V	4001807	7	471700
A	MC149		B	AND INVERTER TYPE 3-5	V	4001807	7	471800
A	MC150		B	AND INVERTER TYPE 4-2	V	4001807	7	471900
A	MC151		C	AND INVERTER TYPE 4-3	V	4001807	7	472000
A	MC152		B	AND INVERTER TYPE 4-4	V	4001807	7	472100
A	MC153		B	AND INVERTER TYPE 5-2	V	4001807	7	472200
A	MC154		C	AND INVERTER TYPE 5-3	V	4001807	7	472300
A	MC155		B	OR INVERTER TYPE -2	V	4001807	7	472400
A	MC156			OR INVERTER TYPE -3	V	4001807	7	472500
A	MC157		B	AND INVERTER TYPE 1-2	V	4001807	7	472600
A	MC158		B	AND INVERTER TYPE 1-3	V	4001807	7	472700
B	600-403		J	MC TRAPPED RADIATION	V	4001807	7	472800
D	600-449		J	REAL TIME A/D ACCUMULATE	V	4001807	7	472900
D	600-488		L	NRT BUFFER&TAPE CONTROLS	V	4001807	7	473000
D	600-489		G	NRT DAS SEQUENCER	V	4001807	7	473100
D	600-491		N	NRT DAS ENCOUNTER	V	4001807	7	473200
D	600-492		T	NRT DAS CNTR SHIFT REG	V	4001807	7	473300
D	600-499		J	REAL TIME A/D ACCUMULAT	V	4001807	7	473400
D	600-500		M	REAL TIME TIMING&CONTROL	V	4001807	7	473500
D	600-678		B	TRAPPED RADIATION	V	4001807	7	473510
D	600-686		B	NRT BUFFER & TAPE CONT	V	4001807	7	473515
D	600-687		B	NRT DAS SEQUENCER	V	4001807	7	473520
D	600-688		B	NRT DAS ENCOUNTER	V	4001807	7	473525
D	600-689		B	NRT DAS COUNT	V	4001807	7	473530
D	600-690		B	REAL TIME A/D	V	4001807	7	473535
D	600-691		B	REAL TIME TIMING & CONT	V	4001807	7	473540

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 148 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	X1001976	LM	G	HARNESS 20A2A MC DAS	V	4001807	7	473600
A	X1001977	LM	D	HARNESS 20A2B MC DAS	V	4001807	7	473700
A	X1001978	LM	G	HARNESS 20A3A MC DAS	V	4001807	7	473800
A	X1001979	LM	A	HARNESS 20A3B MC DAS	V	4001807	7	473900
A	X1001980	LM	G	HARNESS 20A4A MC DAS	V	4001807	7	474000
A	X1001981	LM	G	HARNESS 20A4B MC DAS	V	4001807	7	474100
A	X1001982		P	WIRE JUMPER LIST 10A2A	V	4001807	7	474200
A	X1001983		F	WIRE JUMPER LIST 20A2B	V	4001807	7	474300
A	X1001984		E	WIRE JUMPER LIST 20A2B	V	4001807	7	474400
A	X1001985		B	WIRE JUMPER LIST 20A3B	V	4001807	7	474500
A	X1001986		G	WIRE JUMPER LIST 20A4A	V	4001807	7	474600
A	X1001987		D	WIRE JUMPER LIST 20A4B	V	4001807	7	474700
A	X1002073			WASHER FLAT #2 REWORK	V	4001807	7	474800
B	X2001597		B	INSULATOR SPACER DETAIL	V	4001807	7	474900
C	3001148		B	PATTERN CKT MASK-AI-1	V	4001807	7	475000
C	3001149		B	PATTERN CKT MASK-AI-1	V	4001807	7	475100
C	3001150		B	PATTERN CKT MASK-AI-4	V	4001807	7	475200
C	3001151		B	PATTERN CKT MASK-AI-4	V	4001807	7	475300
C	3001152			AI-1 ARTWORK PELLET FIXT	V	4001807	7	475400
C	3001153			AI-1 ARTWORK PELLET FIXT	V	4001807	7	475500
C	3001154			AI-4 ARTWORK PELLET FIXT	V	4001807	7	475600
C	3001155			AI-4 ARTWORK PELLET FIXT	V	4001807	7	475700
C	3001185		B	PATTERN CKT MASK-AI-2	V	4001807	7	475800
C	3001186		B	PATTERN CKT MASK CSR BOT	V	4001807	7	475900
C	3001187		B	PATTERN CKT MASK CSR TOP	V	4001807	7	476000
C	X3001189			F-F ARTWORK PELLET FIXT	V	4001807	7	476100
C	X3001190			FF ARTWORK PELLET FIXT	V	4001807	7	476200
C	3001191		B	PATTERN CKT MASK F-F BOT	V	4001807	7	476300
C	3001192		B	PATTERN CKT MASK F-F TOP	V	4001807	7	476400
C	X3001193			AND INVERTER TYPE 2	V	4001807	7	476500
C	X3001195			CNTR SHIFT REG BOT	V	4001807	7	476600
C	X3001196			CNTR SHIFT REG TOP	V	4001807	7	476700
C	3001203		B	PATTERN CKT MASK-AI-5	V	4001807	7	476800
C	X3001204			AI-5 ARTWORK PELLET FIXT	V	4001807	7	476900
C	3001210		B	PATTERN CKT MASK-AI-5	V	4001807	7	477000
C	X3001211			AI-5 ARTWORK PELLET FIXT	V	4001807	7	477100
C	3001221		B	PATTERN CKT MASK-AI-3	V	4001807	7	477200
C	X3001222			AI-3 ARTWORK PELLET FIXT	V	4001807	7	477300
C	3001227		B	PATTERN CKT MASK-FF	V	4001807	7	477400
C	3001228		C	PATTERN CKT MASK-OR INV	V	4001807	7	477500

JPL 1367 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 149 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	3001229		C	PATTERN CKT MASK-OR INV	V	4001807	7	477600
C	X3001230			EF ARTWORK PELLET FIX	V	4001807	7	477700
C	X3001231			OR INVERTER ARTWORK PEL	V	4001807	7	477800
C	X3001232			OR INVERTER ARTWORK	V	4001807	7	477900
C	3001250		A	PATTERN CKT MASK-DDR TOP	V	4001807	7	478000
C	3001251		A	PATTERN CKT MASK-DDR BOT	V	4001807	7	478100
C	X3001252			DD TO ESR ARTWORK FIXT	V	4001807	7	478200
C	X3001253			DD TO ESR ARTWORK FIXT	V	4001807	7	478300
C	3001366			DDX ARTWORK PELLET FIXT	V	4001807	7	478400
C	3001367		A	PATTERN CKT MASK-DDX TOP	V	4001807	7	478500
C	X3001389			PR/RA ARTWORK PELLET FIX	V	4001807	7	478600
C	X3001390			PR/RA ARTWORK PELLET FIX	V	4001807	7	478700
C	X3001500		A	111 KC OSC ARTWORK BOT	V	4001807	7	478800
C	3001391		A	PATTERN CKT MASK-PR/RA	V	4001807	7	478900
C	3001392		A	PATTERN CKT MASK-PR/RA	V	4001807	7	479000
C	3001501		B	PATTERN CKT MASK-111 KC	V	4001807	7	479100
C	X3001502			111 KC OSC ARTWORK TOP	V	4001807	7	479200
C	3001503		A	PATTERN CKT MASK-111 KC	V	4001807	7	479300
C	3001507		A	PATTERN CKT MASK LD-1	V	4001807	7	479400
C	3001508		A	PATTERN CKT MASK LD-1	V	4001807	7	479500
D	X3001509			LINE DRIVER-1 ARTWORK	V	4001807	7	479600
C	3001521		A	PATTERN CKT MASK-I-1 TOP	V	4001807	7	479700
C	3001522		A	PATTERN CIRCUIT MASK I-1	V	4001807	7	479800
C	X3001523			I-1 ARTWORK PELLET TOP	V	4001807	7	479900
C	X3001524			I-1 ARTWORK PELLET BOT	V	4001807	7	480000
C	X3001549			IP ARTWORK PELLET FIXT	V	4001807	7	480100
C	X3001550			IS ARTWORK PELLET FIXT	V	4001807	7	480200
C	X3001551			IS ARTWORK PELLET FIXT	V	4001807	7	480300
C	3001552		A	PATTERN CKT MASK-I-S BOT	V	4001807	7	480400
C	3001553		A	PATTERN CKT MASK-I-S TOP	V	4001807	7	480500
C	3001554		A	PATTERN CKT MASK-IP TOP	V	4001807	7	480600
D	X3001608			LINE DRIVER-1 ARTWORK	V	4001807	7	480700
C	X3001777			SCREEN SILKSCREEN PROCES	V	4001807	7	480800
C	X3001778			SCREEN SILKSCREEN PROCES	V	4001807	7	480900
C	X3001779			SCREEN SILKSCREEN PROCES	V	4001807	7	481000
C	X3001780			SCREEN SILKSCREEN PROCES	V	4001807	7	481100
C	3001851		A	PATTERN CKT MASK-SPC-1	V	4001807	7	481200
C	3001852		A	PATTERN CKT MASK-SPC-1	V	4001807	7	481300
C	X3001853		A	PELLET FIXT ARTWORK	V	4001807	7	481400
C	X3001854		A	PELLET FIXT ARTWORK	V	4001807	7	481500

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 150 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	3001862		A	PATTERN CKT MASK CSR-1	V	4001807	7	481600
C	3001863		A	PELLET FIXT ARTWORK CSR1	V	4001807	7	481700
D	X4001598		E	SUBCHASSIS SUBASSEMBLY	V	4001807	7	481800
B	X2001596		A	INSULATOR	V	4001598	8	481900
D	X4001418		E	SUBCHASSIS MACHINED	V	4001598	8	482000
D	X4001705		M	BOARD ASSY COMPONENT	V	4001807	7	482100
A	X1002072			WASHER FLAT #0-REWORK	V	4001705	8	482200
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001705	8	482300
B	2001694			MODULE ASSY I-1 MC DAS	V	4001705	8	482400
C	X3001582			I-1 TOP ENV ASSY	V	2001694	9	482500
C	X3001583			I-1 BOT ENV ASSY	V	2001694	9	482600
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001705	8	482700
C	X3001557		C	F/F & CFF TOP ENV ASSY	V	2001697	9	482800
D	X4001590		C	MARKING-ENVELOPE MC DAS	V	3001557	10	482900
C	X3001558		B	F/F & CFF BOT ENV ASSY	V	2001697	9	483000
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001558	10	483100
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001705	8	483200
D	X4001706		L	BOARD	V	4001807	7	483300
A	X1002072			WASHER FLAT #0-REWORK	V	4001706	8	483400
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001706	8	483500
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001706	8	483600
C	X3001564		D	AI-3 ENV ASSY	V	2001685	9	483700
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001685	9	483800
D	X4001646		C	MOLD ENV OVERCOAT DETAIL	V	3001650	10	483900
B	2001688			MODULE ASSY OI MC DAS	V	4001706	8	484000
C	X3001573		E	OR INVERTER TOP ENV ASSY	V	2001688	9	484100
C	X3001574		D	OR INVERTER BOT ENV ASSY	V	2001688	9	484200
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001706	8	484300
B	2001698			MODULE ASSY LD-1 MC DAS	V	4001706	8	484400
C	X3001580			LINE DRIVER-1 TOP ENV	V	2001698	9	484500
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001580	10	484600
C	X3001581			LINE DRIVER-1 BOT ENV	V	2001698	9	484700
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001581	10	484800
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001706	8	484900
A	X1002072			WASHER FLAT #0-REWORK	V	4001707	8	485000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001707	8	485100
C	X3001565		E	AI-4 TOP ENV ASSY	V	2001686	9	485200
C	X3001566		F	AI-4 BOT ENV ASSY	V	2001686	9	485300
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001707	8	485400
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001707	8	485500

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 151

DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	2001699			MODULE ASSY CSR MC DAS	V	4001707	8	485600
C	X3001559			COUNTER SHIFT REG TOP	V	2001699	9	485700
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001559	10	485800
C	X3001560			COUNTER SHIFT REG BOT	V	2001699	9	485900
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001560	10	486000
B	2001700			MODULE ASSY CSR-1 MC DAS	V	4001707	8	486100
C	X3001560			COUNTER SHIFT REG BOT	V	2001700	9	486200
C	X3001589		A	CSR-1 TOP ENV ASSY	V	2001700	9	486300
D	4001590		C	MARKING-ENVELOPE MC DAS	V	3001589	10	486400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001707	8	486500
D	X4001707		H	BOARD	V	4001807	7	486600
D	X4001708		U	BOARD ASSY COMPONENT	V	4001807	7	486700
A	X1002072			WASHER FLAT #0-REWORK	V	4001708	8	486800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001708	8	486900
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001708	8	487000
B	2001699			MODULE ASSY CSR MC DAS	V	4001708	8	487100
B	2001700			MODULE ASSY CSR-1 MC DAS	V	4001708	8	487200
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001708	8	487300
D	4001709		L	BOARD ASSY COMPONENT	V	4001807	7	487400
A	X1002072			WASHER FLAT #0-REWORK	V	4001709	8	487500
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001709	8	487600
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001709	8	487700
C	3001563		E	AND-INVERTER TYPE 2 ENV	V	2001684	9	487800
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001684	9	487900
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001709	8	488000
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001709	8	488100
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001709	8	488200
D	4001714		J	BOARD ASSY COMPONENT	V	4001807	7	488300
A	X1002072			WASHER FLAT #0-REWORK	V	4001714	8	488400
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001714	8	488500
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001714	8	488600
C	X3001567		D	AI-5 TOP ENV ASSY	V	2001687	9	488700
C	X3001568		D	AI-5 BOT ENV ASSY	V	2001687	9	488800
B	2001688			MODULE ASSY OI MC DAS	V	4001714	8	488900
B	2001699			MODULE ASSY CSR MC DAS	V	4001714	8	489000
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001714	8	489100
D	4001716		L	BOARD ASSY COMPONENT	V	4001807	7	489200
A	X1002072			WASHER FLAT #0-REWORK	V	4001716	8	489300
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001716	8	489400
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001716	8	489500

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 152

DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	3001561		C	AI-1 TOP ENV ASSY	V	2001683	9	489600
B	X2001649		B	ENVELOPE ENCAPSULATION	V	3001561	10	489700
C	X3001169		C	MOLD PELLET MODULE-AI	V	2001649	11	489800
C	X3001170		C	MOLD PELLET MODULE-FF	V	2001649	11	489900
C	X3001650		B	ENVELOPE ENCAPSULATION	V	3001561	10	490000
C	X3001562		D	AI-1 BOT ENV ASSY	V	2001683	9	490100
B	2001688			MODULE ASSY OI MC DAS	V	4001716	8	490200
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001716	8	490300
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001716	8	490400
D	X4001719		J	BOARD ASSY COMPONENT	V	4001807	7	490500
A	X1002072			WASHER FLAT #0-REWORK	V	4001719	8	490600
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001719	8	490700
B	2001688			MODULE ASSY OI MC DAS	V	4001719	8	490800
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001719	8	490900
B	2001701			MODULE ASSY EF MC DAS	V	4001719	8	491000
C	X3001571		B	EF TOP ENV ASSY	V	2001701	9	491100
C	X3001572		B	EF BOT ENV ASSY	V	2001701	9	491200
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001719	8	491300
D	X4001720		L	BOARD ASSY COMPONENT	V	4001807	7	491400
A	X1002072			WASHER FLAT #0-REWORK	V	4001720	8	491500
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001720	8	491600
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001720	8	491700
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001720	8	491800
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001720	8	491900
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001720	8	492000
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001720	8	492100
D	X4001721		R	BD ASSY COMPONENT 2R2	V	4001807	7	492200
A	X1002072			WASHER FLAT #0-REWORK	V	4001721	8	492300
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001721	8	492400
B	2001688			MODULE ASSY OI MC DAS	V	4001721	8	492500
B	2001691			MODULE ASSY DDX MC DAS	V	4001721	8	492600
C	X3001579		A	DDX ENV ASSY	V	2001691	9	492700
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001691	9	492800
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001721	8	492900
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001721	8	493000
D	X4001722		E	BOARD ASSY COMPONENT	V	4001807	7	493100
A	X1002072			WASHER FLAT #0-REWORK	V	4001722	8	493200
B	2001691			MODULE ASSY DDX MC DAS	V	4001722	8	493300
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001722	8	493400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001722	8	493500

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 153 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	X4001730		T	BOARD ASSY COMPONENT	V	4001807	7	493600
A	X1002072			WASHER FLAT #0-REWORK	V	4001730	8	493700
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001730	8	493800
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001730	8	493900
B	2001701			MODULE ASSY EF MC DAS	V	4001730	8	494000
B	2002066			MODULE ASSY XFF MC DAS	V	4001730	8	494100
C	X3001557		C	F/F & CFF TOP ENV ASSY	V	2002066	9	494200
C	X3001558		B	F/F & CFF BOT ENV ASSY	V	2002066	9	494300
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001730	8	494400
D	X4001732		AB	BOARD ASSY COMPONENT	V	4001807	7	494500
A	X1002072			WASHER FLAT #0-REWORK	V	4001732	8	494600
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001732	8	494700
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001732	8	494800
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001732	8	494900
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001732	8	495000
B	2001688			MODULE ASSY OI MC DAS	V	4001732	8	495100
B	2001693			MODULE ASSY PR/RA MC DAS	V	4001732	8	495200
C	X3001577			PR/RA TOP ENV ASSY	V	2001693	9	495300
C	X3001578		A	PR/RA BOT ENV ASSY	V	2001693	9	495400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001732	8	495500
D	X4001733		R	BOARD ASSY COMPONENT	V	4001807	7	495600
A	X1002072			WASHER FLAT #0-REWORK	V	4001733	8	495700
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001733	8	495800
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001733	8	495900
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001733	8	496000
B	2001688			MODULE ASSY OI MC DAS	V	4001733	8	496100
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001733	8	496200
D	X4001746		U	BOARD ASSY COMPONENT	V	4001807	7	496300
A	X1002072			WASHER FLAT #0-REWORK	V	4001746	8	496400
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001746	8	496500
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001746	8	496600
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001746	8	496700
B	2001688			MODULE ASSY OI MC DAS	V	4001746	8	496800
B	2001701			MODULE ASSY EF MC DAS	V	4001746	8	496900
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001746	8	497000
D	X4001748		G	BOARD ASSY COMPONENT	V	4001807	7	497100
A	X1002072			WASHER FLAT #0-REWORK	V	4001748	8	497200
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001748	8	497300
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001748	8	497400
B	2001694			MODULE ASSY I-1 MC DAS	V	4001748	8	497500

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 154 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001748	8	497600
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001748	8	497700
D	X4001749		F	BOARD ASSY COMPONENT	V	4001807	7	497800
A	X1002072			WASHER FLAT #0-REWORK	V	4001749	8	497900
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001749	8	498000
B	2001690			MODULE ASSY DDR MC DAS	V	4001749	8	498100
C	X3001569		A	DD TO ESR TOP ENV ASSY	V	2001690	9	498200
C	X3001570		A	DD TO ESR BOT ENV ASSY	V	2001690	9	498300
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001749	8	498400
B	2001699			MODULE ASSY CSR MC DAS	V	4001749	8	498500
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001749	8	498600
D	X4001760		J	BOARD ASSY COMPONENT	V	4001807	7	498700
A	X1002072			WASHER FLAT #0-REWORK	V	4001760	8	498800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001760	8	498900
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001760	8	499000
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001760	8	499100
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001760	8	499200
D	X4001761		K	BOARD ASSY COMPONENT	V	4001807	7	499300
A	X1002072			WASHER FLAT #0-REWORK	V	4001761	8	499400
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001761	8	499500
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001761	8	499600
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001761	8	499700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001761	8	499800
D	X4001775		J	BOARD ASSY COMPONENT	V	4001807	7	499900
A	X1002072			WASHER FLAT #0-REWORK	V	4001775	8	500000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001775	8	500100
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001775	8	500200
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001775	8	500300
B	2001686			MODULE ASSY AI-4 MC DAS	V	4001775	8	500400
B	2001688			MODULE ASSY OI MC DAS	V	4001775	8	500500
B	2001694			MODULE ASSY I-1 MC DAS	V	4001775	8	500600
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001775	8	500700
D	X4001776		P	BOARD ASSY COMPONENT	V	4001807	7	500800
A	X1002072			WASHER FLAT #0-REWORK	V	4001776	8	500900
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001776	8	501000
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001776	8	501100
B	2001692			MODULE ASSY 111 KC DAS	V	4001776	8	501200
C	X3001575		C	111 KC OSC TOP ENV ASSY	V	2001692	9	501300
C	X3001576		B	111 KC BOT ENV ASSY	V	2001692	9	501400
B	2001695			MODULE ASSY I-S MC DAS	V	4001776	8	501500

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 155 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	X3001585		A	IS INTERFACE TOP ENV ASY	V	2001695	9	501600
C	X3001586		A	IS INTERFACE BOT ENV ASY	V	2001695	9	501700
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001776	8	501800
D	X4001786		G	BOARD ASSY COMPONENT	V	4001807	7	501900
A	X1002072			WASHER FLAT #0-REWORK	V	4001786	8	502000
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001786	8	502100
B	2001684			MODULE ASSY AI-2 MC DAS	V	4001786	8	502200
B	2001685			MODULE ASSY AI-3 MC DAS	V	4001786	8	502300
B	2001687			MODULE ASSY AI-5 MC DAS	V	4001786	8	502400
B	2001697			MODULE ASSY 4FF&SFF DAS	V	4001786	8	502500
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001786	8	502600
D	X4001787		M	BOARD ASSY COMPONENT	V	4001807	7	502700
A	X1002072			WASHER FLAT #0-REWORK	V	4001787	8	502800
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001787	8	502900
B	2001683			MODULE ASSY AI-1 MC DAS	V	4001787	8	503000
B	2001688			MODULE ASSY OI MC DAS	V	4001787	8	503100
B	2001696			MODULE ASSY I-P MC DAS	V	4001787	8	503200
C	X3001584			IP INTERFACE ENV ASSY	V	2001696	9	503300
C	X3001650		B	ENVELOPE ENCAPSULATION	V	2001696	9	503400
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001787	8	503500
D	X4001804		L	BOARD ASSY COMPONENT	V	4001807	7	503600
A	X1002072			WASHER FLAT #0-REWORK	V	4001804	8	503700
B	X2001595		A	INSULATOR SPACER DETAIL	V	4001804	8	503800
B	2001689			MODULE ASSY SPC-1 MC DAS	V	4001804	8	503900
C	X3001587			SPC-1 TOP ENV ASSY	V	2001689	9	504000
C	X3001588			SPC-1 BOT ENV ASSY	V	2001689	9	504100
B	2001692			MODULE ASSY 111 KC DAS	V	4001804	8	504200
B	2001696			MODULE ASSY I-P MC DAS	V	4001804	8	504300
C	X3001789			MODULE ASSY-CORDWOOD	V	4001804	8	504400
C	3001790		A	MOD ASSY-CORDWOOD 21.4KC	V	4001804	8	504500
D	X4001540		D	BD COMPONENT-DETAIL-ASSY	V	4001804	8	504600
D	X4003390		A	TRAY 20A4 SIDE B	V	4001807	7	504605
D	X4003391		B	TRAY 20A2 SIDE A	V	4001807	7	504606
D	X4003392			TRAY 20A4 SIDE A	V	4001807	7	504607
D	X4003393			TRAY 20A2 SIDE B	V	4001807	7	504608
D	4003437			TRAY 20A3 SIDE A	V	4001807	7	504609
D	4003438		C	TRAY 20A3 SIDE	V	4001807	7	504610
B	MC023		C	MODULE ASSIGN FLIGHT	V	4001807	7	504700
D	4801215	CD	C	COSMIC RAY TELESCOP	L	4801216	5	504800
B	90433			SURFACE TREATMENT	L	4801215	6	504900

JPL 1567 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 156 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	D-E352		A	COSMIC RAY TELESCOPE	V	4801215	6	505100
C	21429			OUTLINE CONV MODEL 489	V	D-E-352	7	505200
B	21427		B	SCHEM ARM MODEL 489	V	21429	8	505300
B	200			DETECTOR DIAS SUPPLY	V	D-E-352	7	505400
B	201		A	CHARGE SENSITIVE AMP	V	D-E-352	7	505500
B	202			EMITTER FOLLOWER	V	D-E-352	7	505600
B	M202	-1		EMITTER FOLLOWERS	V	D-E-352	7	505610
B	M202	-2		EMITTER FOLLOWERS	V	D-E-356	7	505620
B	203			COINCIDENCE	V	D-E-352	7	505700
B	203	-1		COINCIDENCE	V	D-E-352	7	505800
B	203	-2		COINCIDENCE	V	D-E-352	7	505900
B	204			COINCIDENCE WITH OR	V	D-E-352	7	506000
B	204	-1		COINCIDENCE	V	D-E-352	7	506100
B	205	-1		HTC-1	V	D-E-352	7	506200
B	205	-2		HTC-2	V	D-E-352	7	506300
B	207			HTC CLOCK	V	D-E-352	7	506400
B	208	-1		BINARY	V	D-E-352	7	506500
B	208	-2		BINARY INDICATOR	V	D-E-352	7	506600
B	M208	-3		BINARY	V	D-E-352	7	506700
B	209			CALIBRATE MODE TOGGLE	V	D-E-352	7	506800
B	209	-1		READ-WRITE TOGGLE	V	D-E-352	7	506900
B	210			HIGH SPEED OR	V	D-E-352	7	507000
B	211			OVERFLOW BUFFER	V	D-E-352	7	507100
B	212			CLOCK SIGNAL BUFFER	V	D-E-352	7	507200
B	213			DISCRIMATOR	V	D-E-352	7	507300
B	214			DECOUPLING FOR TOGGLES	V	D-E-352	7	507400
B	215			DECOUPL FOR DISCRIMINATR	V	D-E-352	7	507500
B	223			GATE	V	D-E-352	7	507600
B	224			GATE CONTROL	V	D-E-352	7	507700
B	228			POST AMPLIFIER	V	D-E-352	7	507800
C	C-E-351			DETECTOR ASSY	V	D-E-352	7	507900
A	351	-01		TEMP SENSOR BOARD	V	C-E-351	8	508000
A	C-E-351			PROCESS CHART	V	C-E-351	8	508100
A	C-E-351	-0		OVERALL LAYOUT	V	C-E-351	8	508200
B	B-E-351	-1	A	OUTER HOUSING MAG	V	C-E-351	8	508300
A	A-E-351	-2	A	WINDOW COVER MAG	V	C-E-351	8	508400
A	A-E-351	-3	A	ALUM ABSORBER ALUM	V	C-E-351	8	508500
A	A-E-351	-4	A	DETECTOR CLAMP RING MAG	V	C-E-351	8	508600
A	A-E-351	-6	A	THREADED BOSS COLLAR	V	C-E-351	8	508700
B	B-E-351	-7	A	DETECT HOUSING BLK NYLON	V	C-E-351	8	508800

JPL 1567 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 157 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	A-E-351	-8	A	ABSORBER WASHER MAG	V	C-E-351	8	508900
A	A-E-351	-9	A	ABSORBER HOLDER MAG	V	C-E-351	8	509000
A	A-E-351	-10		ABSORBER PLATINUM	V	C-E-351	8	509100
A	A-E-351	-11	A	STANDOFF PLATES	V	C-E-351	8	509200
B	B-E-351	-12	A	DETECTR HOLDER BLK NYLON	V	C-E-351	8	509300
A	A-E-351	-13	A	COVER MAG	V	C-E-351	8	509400
A	A-E-351	-14	A	INSULATING COLLAR NYLON	V	C-E-351	8	509500
A	A-E-351	-15	A	INSULATING COLLAR BUSHNG	V	C-E-351	8	509600
A	A-E-351	-16	A	THREADED BOSS MAG	V	C-E-351	8	509700
A	A-E-351	-18	A	BUSHING OUTER HOUSING	V	C-E-351	8	509900
A	A-E-351	-19	A	TREADED BOXX BUSHING	V	C-E-351	8	510000
A	A-E-351	-20	A	INSULATOR NYLON	V	C-E-351	8	510100
A	A-E-351	-21	B	BASE AMP HOUSING MAG	V	C-E-351	8	510200
B	B-E-351	-22		AMP HOUSING DETAIL	V	C-E-351	8	510300
A	A-E351	-23	A	SPECIAL SCREW	V	C-E-351	8	510400
A	A-E-351	-24	A	SPACERS AMP BOARDS	V	C-E-351	8	510600
C	C-E-351	-25		RADIATING FIN OUTER MAG	V	C-E-351	8	510700
A	A-E-351	-26	A	INSULATION BASE AMP HSG	V	C-E-351	8	510800
A	A-E351	-27		FLAT BOARD SHIELD	V	C-E-351	8	510900
A	A-E351	-28	A	PROBE BRACKETS AMP	V	C-E-351	8	511000
A	A-E-351	-29		GROMET	V	C-E-351	8	511100
B	B-E-351	-29		TEST CONNECTOR ASSY	V	C-E-351	8	511200
B	B-E-351	-30		TEST CABLE HOUSING	V	C-E-351	8	511300
A	D-E-352			PROCESS CHART	V	D-E-352	7	511400
D	D-E352	-1	A	ELECTRONIC TRAY-	V	D-E-352	7	511500
B	B-E-352	-11		SHIELD POWER CONVERTER	V	D-E-352	7	512500
J	4801219		D	CHASS SCIENTIFIC EQUIP	L	4801216	5	512800
J	4901046		C	CHASSIS BASIC ASSY	L	4801219	6	512900
A	90433			SURFACE TREATMENT	L	4901046	7	513000
J	4901107		E	TRANSDUCER TEMPERATURE	L	4801219	6	513100
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4901107	7	513200
B	4800078		B	CLAMP WIRE	L	4901107	7	513300
B	4901137		A	GROMMET TEFLON	L	4901107	7	513400
D	4901158		A	SCREW MACHINE PAN HEAD	L	4901107	7	513500
J	4801222		D	PWR SUPPLY 36A6 SUBASSY	L	4801216	5	513600
B	90312			STUD LOCK FEMALE	L	4801222	6	513700
C	90314			CONNECTOR INSTL DEM-9	L	4801222	6	513800
J	4801221		C	POWER SUPPLY SCHEM	L	4801222	6	513900
A	4801221	PL	C	TR POWER SUPPLY	L	4801221	7	514000
J	4801204		C	ANAL-DIG TV ENCODR SCHEM	L	4801321	7	514100

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 158 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	4801204	PL	C	ANAL-DIG TV ENCODER	L	4801204	8	514200
J	4801297		C	CB2 ANAL-DIG TV ENCODER	L	4801321	7	514300
	DS 80			INSULATOR	L	4801297	8	514400
	DS 96			TERMINAL BIFURCATED	L	4801297	8	514500
A	DS 99			TERMINAL BIFURCATED	L	4801297	8	514600
C	90447			TERMINAL	L	4801297	8	514700
C	4800736		B	FLIP-FLOP SCALER	L	4801297	8	514800
C	4800739		B	BUFFER PROGRAM MODUL	L	4801297	8	514900
C	4800740		B	FLIP-FLOP SHIFT REG	L	4801297	8	515000
C	4800776		B	BUFFER-OUTPUT	L	4801297	8	515100
D	4801285	CD	B	MATRIX	L	4801297	8	515200
J	4801298		B	CB2 PRINTED CIRCUITRY	L	4801297	8	515300
J	4801318		C	CB1 ANAL-DIG TV ENCODER	L	4801321	7	515400
	DS 80			INSULATOR	L	4801318	8	515500
C	90448			TERMINAL	L	4801318	8	515600
C	4800736		B	FLIP-FLOP SCALER	L	4801318	8	515700
C	4800738	CD	B	GATE SHIFT REGISTER	L	4801318	8	515800
C	4800740		B	FLIP-FLOP SHIFT REG	L	4801318	8	515900
C	4800742		B	GATE CONT DWG	L	4801318	8	516000
J	4801319		C	CB1 PC ANALOG DIGITAL	L	4801318	8	516100
D	4801320		A	SUBCHASSIS	L	4801321	7	516200
B	90433			SURFACE TREATMENT	L	4801320	8	516300
J	4801322		D	CB1 POWER SUPPLY	L	4801222	6	516400
C	90447			TERMINAL	L	4801322	7	516500
C	90448			TERMINAL	L	4801322	7	516600
J	4801324		D	CB1 PC POWER SUPPLY	L	4801322	7	516700
J	4801323		C	CB2 POWER SUPPLY	L	4801222	6	516800
C	90252			SCREW QUINTLOCK	L	4801323	7	516900
C	90448			TERMINAL	L	4801323	7	517000
J	4801325		C	CB2 PC POWER SUPPLY	LX	4801323	7	517100
D	4801326		C	SUBCHASSIS POWER SUPPLY	L	4801222	6	517200
B	90433			SURFACE TREATMENT	L	4801326	7	517300
C	4801422		A	SUPPORT STRAP	L	4801222	6	517400
B	90433			SURFACE TREATMENT	L	4801422	7	517500
B	4801423			STRAP CAPACITOR	L	4801222	6	517600
A	90353			DULL BLACK ANODIZE	L	4801423	7	517700
B	4801424		A	INSULATOR	L	4801222	6	517800
B	4801425			INSULATOR	L	4801222	6	517900
B	4801426		A	SUPPORT STRAP	L	4801222	6	518000
B	90433			SURFACE TREATMENT	L	4801426	7	518100

JPL 1967 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 159 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE – GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4801427		A	INSULATOR	L	4801222	6	518200
C	4801428			INSULATOR	L	4801222	6	518300
C	4801429		A	INSULATOR	L	4801222	6	518400
D	4801227		B	PLASMA ELECT 1 32A2	LX	4801216	5	518500
B	90433			SURFACE TREATMENT	L	4801227	6	518600
D	107406		A	MODULE 1 ASSY 32A2 MC	V	4801227	6	518700
C	107282		B	COVER ASSY	V	107406	7	518800
A	107282	LM	A	COVER ASSY	V	107406	7	518900
C	484116		B	COVER	V	107282	8	519000
A	107406	LM	A	MODULE 1 ASSY 32A2 MC	V	4801227	7	519100
E	107408			COMPONENT BD ASY SIGNAL	V	107406	7	519200
B	340694			PAD MTG TRANSISTOR	V	107408	8	519300
B	460601			INSULATOR TRANSISTOR	V	107408	8	519400
C	460603		A	INSUL SIGNAL PROCESSOR	V	107408	8	519500
B	460606			INSULATOR	V	107408	8	519600
B	107408	LM	A	COMPONENT BD ASY SIGNAL	V	107406	7	519700
E	107410		A	COMPONENT BD ASY PREAMPL	V	107406	7	519800
B	340694			PAD MTG TRANSISTOR	V	107410	8	519900
B	460601			INSULATOR TRANSISTOR	V	107410	8	520000
C	460602		A	INSULATOR PREAMPLIFIER	V	107410	8	520100
C	820434		A	STRIP CONTACT	V	107410	8	520200
C	820435		A	STRIP CONTACT	V	107410	8	520300
C	820437		A	STRIP CONTACT	V	107410	8	520400
B	107410	LM	A	COMPONENT BD ASSY	V	107406	7	520500
B	107425		A	CABLE & WIRING ASSY 32A2	V	107406	7	520600
A	260319		A	TAPE LACING	V	107406	7	520700
B	460595		A	INSULATOR	V	107406	7	520800
B	460600		A	INSULATOR BOTTOM	V	107406	7	520900
D	484113		D	MODULE 1 32A2 MC	V	107406	7	521000
A	S 2461		A	MC BONDING&ENCAPSULATION	V	4801227	6	521010
A	S 2467		A	CAPACITOR FIXED	V	4801227	6	521012
J	84646		M	DIGITAL SECTION	V	4801227	6	521014
J	85653		O	SELECTION REGISTER	V	4801227	6	521016
J	85662		O	MEASUREMENT CHAIN	V	4801227	6	521018
B	270702		B	CAPACITOR METALLIZED	V	4801227	6	521020
D	370437			TIMING DIAGRAM MA MARS	V	4801227	6	521022
A	460125		A	INSUL SLEEVING ELECT	V	4801227	6	521024
B	730429			RESISTOR FIXED	V	4801227	6	521026
A	950681		A	WIRE ELECT INSUL HI TEMP	V	4801227	6	521028
C	2743		C	MAIN ASSEMBLY	V	4801227	6	521030

JPL 1887 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 160 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE – GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	2740		DA	PROTON ELECTRON CONVERT	V	2743	7	521032
A	A-2685		AA	CHOKE	V	C-2740	8	521034
A	2688		A	TOROID-T1	V	2740	8	521036
A	A-2769		AA	CHOKE	V	C-2740	8	521038
A	2771		B	TOROID-T2	V	2740	8	521040
A	3010		A	TOROID COVERS	V	2740	8	521044
B	B-3156			P.C. BD BLANK	V	C-2740	8	521046
A	A-3153			HEATSINK ASSY	V	C-2743	7	521048
C	268740		BA	MC PROTON ELECTRON CONV	V	2743	7	521050
D	2942		D	PROTON ELECTRON CONVERT	V	2743	7	521052
C	2825		C	POWER SUPPLY	V	4801227	6	521060
B	2780		C	SCHEMATIC POWER SUPPLY	V	2825	7	521062
C	2821		C	BOTTOM BOARD ASSY	V	2825	7	521064
A	2843			CHOKE	V	2821	8	521066
C	2822		D	TOP BOARD ASSY	V	2825	7	521068
A	2845		A	TOROID	V	2822	8	521070
B	2857		B	CAPACITOR MODULE #1	V	2822	8	521072
B	2868		B	CAPACITOR MODULE #2	V	2822	8	521074
A	2844		A	TOROID	V	2825	7	521076
D	4801228	CD	B	PLASMA ELECT 2 32A3	L	4801216	5	521100
D	4901050		B	SUBCHASSIS MACHINED	L	4801228	6	521200
D	107400		A	MODULE 2 ASSY 32A3 MC	V	4801228	6	521300
A	107400	LM		MODULE 2 ASSY 32A3 MC	V	4801228	7	521400
E	107403		A	COMPONENT BD ASSY DIG 2	V	107400	7	521500
D	107398			COMPONENT BD ASY MATRX B	V	107403	8	521600
B	460597		A	INSULATOR MATRIX B	V	107398	9	521700
B	107398	LM		COMPONENT BD ASY MATRIX	V	107403	8	521800
C	460599		A	INSULATOR	V	107403	8	521900
B	460606			INSULATOR	V	107403	8	522000
B	107403	LM	A	COMPONENT BD ASY DIG 2	V	107400	7	522100
E	107404		A	COMPONENT BD ASSY DIG 1	V	107400	7	522200
D	107397			COMPONENT BD ASY MATRX A	V	107404	8	522300
B	460596		A	INSULATOR MATRIX A	V	107397	9	522400
B	107397	LM	A	COMPONENT BD ASY MATRIX	V	107404	8	522500
C	460599		A	INSULATOR	V	107404	8	522600
B	107404	LM	A	COMPONENT BD ASY DIG 1	V	107400	7	522700
B	107423			CABLE & WIRING ASSY 32A3	V	107400	7	522800
A	260319		A	TAPE LACING	V	107400	7	522900
B	460595		A	INSULATOR	V	107400	7	523000
B	460600		A	INSULATOR BOTTOM	V	107400	7	523100

JPL 1887 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 161 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL.	SEQUENCE NUMBER
D	484114		D	MODULE 2 32A3 MC	V	107400	7	523200
B	850355			TERMINAL LUG	V	107400	7	523300
A	S 2461		A	MC BONDING&ENCAPSULATION	V	4801228	6	523310
A	S 2467		A	CAPACITOR FIXED	V	4801228	6	523312
J	84646		M	DIGITAL SECTION	V	4801228	6	523314
J	85653		D	SELECTION REGISTER	V	4801228	6	523316
J	85662		D	MEASUREMENT CHAIN	V	4801228	6	523318
B	270702		B	CAPACITOR METALLIZED	V	4801228	6	523320
D	370437			TIMING DIAGRAM MA MARS	V	4801228	6	523322
A	460125		A	INSUL SLEEVING ELECT	V	4801228	6	523324
B	730429			RESISTOR FIXED	V	4801228	6	523326
A	950681		A	WIRE ELECT INSUL HI TEMP	V	4801228	6	523328
C	2743		C	MAIN ASSEMBLY	V	4801228	6	523330
C	2740		DA	PROTON ELECTRON CONVERT	V	2743	7	523332
A	A-2685		AA	CHOKE	V	C-2740	8	523334
A	2688		A	TOROID-T1	V	2740	8	523336
A	A-2769		AA	CHOKE	V	C-2740	8	523338
A	2771		B	TOROID-T2	V	2740	8	523340
A	3010		A	TOROID COVERS	V	2740	8	523344
B	B-3156			P.C. BD BLANK	V	C-2740	8	523346
A	A-3153			HEATSINK ASSY	V	C-2743	7	523348
C	268740		BA	MC PROTON ELECTRON CONV	V	2743	7	523350
D	2942		D	PROTON ELECTRON CONVERT	V	2743	7	523352
C	2825		C	POWER SUPPLY	V	4801228	6	523360
B	2780		C	SCHEMATIC POWER SUPPLY	V	2825	7	523362
C	2821		C	BOTTOM BOARD ASSY	V	2825	7	523364
A	2843			CHOKE	V	2821	8	523366
C	2822		D	TOP BOARD ASSY	V	2825	7	523368
A	2845		A	TOROID	V	2822	8	523370
B	2857		B	CAPACITOR MODULE #1	V	2822	8	523372
B	2868		B	CAPACITOR MODULE #2	V	2822	8	523374
A	2844		A	TOROID	V	2825	7	523376
D	4801229	CD	D	PLASMA ELECT 3 32A4	LX	4801216	5	523400
B	850355			TERMINAL LUG	V	107406	7	523500
B	90433			SURFACE TREATMENT	L	4801229	6	523600
D	107401		A	MODULE 3 ASSY 32A4 MC	V	4801229	6	523700
C	107282		B	COVER ASSY	V	107401	7	523800
C	484145			COVER	V	107282	8	523900
B	930446			WASHER FLAT	V	107282	8	524000
C	107283		B	COVER ASSY	V	107401	7	524100

JPL 1267 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 162 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL.	SEQUENCE NUMBER
C	484117		B	COVER	V	107283	8	524200
B	930446			WASHER FLAT	V	107283	8	524300
B	107283	LM	A	COVER ASSY	V	107401	7	524400
B	107399			10KV JACK ASSEMBLY	V	107401	7	524500
A	107399	LM		10KV JACK ASSY	V	107401	7	524600
A	107401	LM	A	MODULE 3 ASSY 32A4 MC	V	107401	7	524700
D	107402		A	COMPONENT BD ASY HV RECT	V	107401	7	524800
B	310333			CLIP COMPONENT	V	107402	8	524900
A	390441			RIVET TUBULAR	V	107402	8	525000
B	460594		A	INSULATOR HV RECTIFIERS	V	107402	8	525100
B	107402	LM	A	COMPONENT BD ASSY HV	V	107401	7	525200
E	107405		A	COMPONENT BD ASY HV MOD	V	107401	7	525300
B	270701			CAPACITOR FIXED	V	107405	8	525400
B	340693			PAD MTG TRANSISTOR	V	107405	8	525500
B	340694			PAD MTG TRANSISTOR	V	107405	8	525600
C	460598		A	INSUL HI VOLT MODULATOR	V	107405	8	525700
B	460601			INSULATOR TRANSISTOR	V	107405	8	525800
B	460606			INSULATOR	V	107405	8	525900
B	107405	LM	A	COMPONENT BD ASSY HV	V	107401	7	526000
A	107411	LM	A	XFMR & RETAINER ASSY	V	107401	7	526100
B	107411		A	TRANSFORMER & RETAINER	V	107401	7	526200
B	460605		A	INSULATION STRIP	V	107411	8	526300
B	484148			RETAINER	V	107411	8	526400
A	107421	LM	A	CAPACITOR & HOUS ASSY	V	107401	7	526500
B	107421		A	CAPACITOR&HOUSING ASSY	V	107401	7	526600
B	460604		A	INSULATION STRIP	V	107421	8	526700
C	484147		A	HOUSING	V	107421	8	526800
B	107424		A	CABLE & WIRING ASSY	V	107401	7	526900
B	107985	LM		COMPONENT BD ASSY	V	107401	7	527000
C	107985			COMPONENT BD ASSY HV MOD	V	107401	7	527100
B	460607			INSULATOR	V	107985	8	527200
A	260319		A	TAPE LACING	V	107401	7	527300
B	460595		A	INSULATOR	V	107401	7	527400
B	460600		A	INSULATOR BOTTOM	V	107401	7	527500
D	484115		D	MODULE 3 32A4 MC	V	107401	7	527600
A	660429			NUT SPECIAL	V	107401	7	527700
B	753006			SPACER	V	107401	7	527800
B	850355			TERMINAL LUG	V	107401	7	527900
A	S 2461		A	MC BONDING&ENCAPSULATION	V	4801229	6	527910
A	S 2467		A	CAPACITOR FIXED	V	4801229	6	527912

JPL 1267 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 163 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE—GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	84646		M	DIGITAL SECTION	V	4801229	6	527914
J	85653		O	SELECTION REGISTER	V	4801229	6	527916
J	85662		O	MEASUREMENT CHAIN	V	4801229	6	527918
B	270702		B	CAPACITOR METALLIZED	V	4801229	6	527920
D	370437			TIMING DIAGRAM MA MARS	V	4801229	6	527922
A	460125		A	INSUL SLEEVING ELECT	V	4801229	6	527924
B	730429			RESISTOR FIXED	V	4801229	6	527926
A	950681		A	WIRE ELECT INSUL HI TEMP	V	4801229	6	527928
C	2743		C	MAIN ASSEMBLY	V	4801229	6	527930
C	2740		DA	PROTON ELECTRON CONVERT	V	2743	7	527932
A	A-2685		AA	CHOKE	V	C-2740	8	527934
A	2688		A	TOROID-T1	V	2740	8	527936
A	A-2769		AA	CHOKE	V	C-2740	8	527938
A	2771		B	TOROID T2	V	2740	8	527940
A	3010		A	TOROID COVERS	V	2740	8	527944
B	B-3156			P.C. BD BLANK	V	C-2740	8	527946
A	A-3153			HEATSINK ASSY	V	C-2743	7	527948
C	268740		BA	MC PROTON ELECTRON CONV	V	2743	7	527950
D	2942		D	PROTON ELECTRON CONVERT	V	2743	7	527952
C	2825		C	POWER SUPPLY	V	4801229	6	527960
B	2780		C	SCHEMATIC POWER SUPPLY	V	2825	7	527962
C	2821		C	BOTTOM BOARD ASSY	V	2825	7	527964
A	2843			CHOKE	V	2821	8	527966
C	2822		D	TOP BOARD ASSY	V	2825	7	527968
A	2845		A	TOROID	V	2822	8	527970
B	2857		B	CAPACITOR MODULE #1	V	2822	8	527972
B	2868		B	CAPACITOR MODULE #2	V	2822	8	527974
A	2844		A	TOROID	V	2825	7	527976
D	4801230	CD	A	DAS POWER SUPPLY 20A5	LX	4801216	5	528000
B	90433			SURFACE TREATMENT	L	4801230	6	528100
D	4801363		C	SUBCHASS DAS PWR SUPPLY	L	4801230	6	528200
D	OTL-21382		C	POWER SUPPLY	V	4801230	6	528300
C	AWI-21382		E	PRINTED TERMINAL BD ASSY	V	21382	7	528400
C	AWI-21382-1		D	PRINTED TB ASSY	V	21382	7	528500
D	SCH-21382		D	DAS POWER SUPPLY RT	V	21382	7	528600
C	TRA 21382-1		B	TRANSFORMER	V	21382	7	528700
C	TRA 21382-2		B	TRANSFORMER	V	21382	7	528800
B	TRA 0039		B	TRANSFORMER	V	21382	7	528900
C	TBA-0039-1		B	PRINTED TERMINAL BD ASSY	V	21382	7	529000
C	TBA-0039-2		D	PRINTED TEMINAL BD ASSY	V	21382	7	529100

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 164 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE—GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	TBA 0040		C	PRINTED TERMINAL BD ASSY	V	21382	7	529200
C	TBD 0039		A	PRINTED TERMINAL BOARD	V	21382	7	529300
D	TBD-0040		A	PRINTED TERMINAL BOARD	V	21382	7	529400
B	TRA 0040		B	TRANSFORMER	V	21382	7	529500
D	MTG 0149		A	SUBCHAS POWER SUPPLY	V	21382	7	529600
D	4801231	CD		SCAN ELECT & TR 31A2	LX	4801216	5	529700
D	4801364		A	SUBCHASSIS 31A2 ASSY	L	4801231	6	529800
B	90433			SURFACE TREATMENT	L	4801364	7	529900
D	OTL 21325			POWER SUPPLY SCAN ELEC	V	4801231	6	530000
C	AWI-21325		E	PRINTED TERMINAL	V	21325	7	530005
B	BRA-0183		A	BRACKET SHIELD	V	21325	7	530007
B	BRA 3184		A	BRACKET RELAY	V	21325	7	530008
D	MTG-0126		B	SUB-CHASSIS PWR SUPPLY	V	21325	7	530010
D	SCH 21325		H	POWER SUPPLY	V	21325	7	530015
C	TBA 0037		D	PRINTED TERMINAL BD	V	21325	7	530020
C	TBA 0038		B	TERMINAL BD	V	21325	7	530025
C	TBD 0037		D	PRINTED TERMINAL BD	V	21325	7	530030
D	TBD 0038		B	PRINTED TERMINAL BD	V	21325	7	530035
B	TRA 21223-1		A	TRANSFORMER	V	21325	7	530040
B	TRA 21325-1		A	TRANSFORMER	V	21325	7	530045
C	TRA 21325-2		A	TRANSFORMER	V	21325	7	530050
B	TRA 21325-3		B	TRANSFORMER	V	21325	7	530055
B	TRA 21325-4		A	TRANSFORMER	V	21325	7	530060
J	4801232		C	DEFLECTION & CONT 36A4	L	4801216	5	530100
B	90312			STUD LOCK FEMALE	L	4801232	6	530200
C	90314			CONNECTOR INSTL REM 9	L	4801232	6	530300
J	4801233		C	DEFLECTION & CONT SCHEM	L	4801232	6	530400
A	4801233	PL	C	DEFLECTION & CONTROL	L	4801233	7	530500
J	4801234		B	SUBCHASS DEFLECTIONCCONT	L	4801232	6	530600
B	90433			SURFACE TREATMENT	L	4801234	7	530700
J	4801235		C	CB1 DEFLECTION & CONTROL	L	4801232	6	530800
A	90127			TRANSIPAD INSTALLATION	L	4801235	7	530900
B	90252			SCREW QUINTLOCK	L	4801235	7	531000
A	90303			TRANSIPAD INSTALLATION	L	4801235	7	531100
C	90447			TERMINAL	L	4801235	7	531200
C	90448			TERMINAL	L	4801235	7	531300
J	4801233		C	DEFLECTION & CONT SCHEM	L	4801235	7	531400
J	4801237		C	CB1 CIRCUITRY DEFLECTION	L	4801235	7	531500
J	4801236		C	CB2 DEFLECTION & CONTROL	L	4801232	6	531600
A	90127			TRANSIPAD INSTALLATION	L	4801236	7	531700

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 165 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	90252			SCREW QUINTLOCK	L	4801236	7	531800
A	90303			TRANSIPAD INSTALLATION	L	4801236	7	531900
C	90447			TERMINAL	L	4801236	7	532000
C	90448			TERMINAL	L	4801236	7	532100
J	4801238		B	CB2 PC DEFLECTION & CONT	L	4801236	7	532200
C	4801247	CD		FLIP-FLOP LOGIC	L	4801236	7	532300
J	4801240		C	VIDEO CHANNEL B6A8	L	4801216	5	532400
B	90312			STUD LOCK FEMALE	L	4801240	6	532500
B	4801239			SHIELD CHOKE	L	4801240	6	532600
J	4801241		C	VIDEO CHANNEL SCHEM	L	4801240	6	532700
A	4801241	PL	C	VIDEO CHANNEL	L	4801241	7	532800
J	4801242		A	SUBCHASS VIDEO CHANNELS	L	4801240	6	532900
B	90433			SURFACE TREATMENT	L	4801242	7	533000
J	4801243		C	CB1 VIDEO CHANNEL & COMP	L	4801240	6	533100
A	90127			TRANSIPAD INSTALLATION	L	4801243	7	533200
C	90252			SCREW QUINTLOCK	L	4801243	7	533300
A	90303			TRANSIPAD INSTALLATION	L	4801243	7	533400
C	90447			TERMINAL	L	4801243	7	533500
C	90448			TERMINAL	L	4801243	7	533600
J	4801241		C	VIDEO CHANNELS SCHEM	L	4801243	7	533700
J	4801245		C	PC CB1 VIDEO CHANNELS	L	4801243	7	533800
C	4801247	CD		FLIP-FLOP LOGIC	L	4801243	7	533900
C	4801248			FLIP-FLOP GAIN CONT	L	4801243	7	534000
C	4801249			FLIP-FLOP PLANET AGZ	L	4801243	7	534100
J	4801244		C	CB2 VIDEO CHANNEL	L	4801240	6	534200
C	90252			SCREW QUINTLOCK	L	4801244	7	534300
A	90303			TRANSIPAD INSTALLATION	L	4801244	7	534400
C	90447			TERMINAL	L	4801244	7	534500
C	90448			TERMINAL	L	4801244	7	534600
J	4801241		C	VIDEO CHANNEL SCHEM	L	4801244	7	534700
J	4801246		C	PC CB2 VIDEO CHANNELS	L	4801244	7	534800
D	4801321		C	ANAL-DIG TV ENCODER 36A5	L	4801216	5	534900
B	90312			STUD LOCK FEMALE	L	4801321	6	535000
C	90314			CONNECTOR INSTL DEM-9	L	4801321	6	535100
D	4801367		D	PLANETARY SCAN SUBASSY	L	4801216	5	535200
B	90312			STUD LOCK FEMALE	L	4801367	6	535300
C	90314			CONNECTOR INSTL DEM-9	L	4801367	6	535400
J	4801365		D	PLANETARY SCAN SCHEMATIC	L	4801367	6	535500
A	4801365	PL	E	PLANETARY SCAN ELECT	L	4801365	7	535600
D	4801450	CD	A	MODULE #2 PLANETARY SCAN	L	PL4801365	8	535700

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 166 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4801451	CD	A	MODULE #1 PLANETARY SCAN	L	PL4801365	8	535800
D	4801452	CD		CONVERTER 31A3	L	PL4801365	8	535900
C	100505	-1	D	V/PULSE WIDTH CONV NEG	V	4801452	9	536000
D	100526		E	WELDED ASSY	V	100505	10	536100
C	100527		F	SCHEM VOLTAGE TO PULSE	V	100505	10	536200
D	100528		F	WELDED ASSY	V	100505	10	536300
B	100517		B	TERMINAL BOARD ASSY	V	100528	11	536400
C	100505	-2	D	V/PULSE WIDTH CONV POS	V	4801452	9	536500
C	100525		D	SCHEMATIC DGM	V	100505	10	536600
C	100526		D	WELDED ASSY	V	100505	10	536700
B	100517		B	TERMINAL BOARD ASSY	V	100526	11	536800
D	4801366		B	SUBCHASS PLANETARY SCAN	L	4801367	6	536900
B	90433			SURFACE TREATMENT	L	4801366	7	537000
J	4801368		C	CB1 ASY PLANETARY SCAN	L	4801367	6	537100
C	90252			SCREW QUINTLOCK	L	4801368	7	537200
J	4801369		A	PC CB1 PLANETARY SCAN	L	4801368	7	537300
J	4801370		D	CB2 ASSY PLANETARY	L	4801367	6	537400
C	90252			SCREW QUINTLOCK	L	4801370	7	537500
J	4801371		A	PC CB2 PLANETARY SCAN	L	4801370	7	537600
J	4801637		C	NRT-DAS LOGIC SUBASSY	L	4801216	5	537700
4	4801638		C	SUBCHASSIS MACHINED	L	4801637	3	537800
D	4801639		B	TERMINAL BOARD	L	4801637	6	537900
C	4801640		A	SPACER	L	4801637	6	538000
C	4801641		A	CLAMP	L	4801637	6	538100
B	4801642		A	THREADED ROD	L	4801637	6	538200
J	4801647		D	STICK 1 ASSY SIDE A	L	4801637	6	538300
D	4801649		F	INTERFACE WELD MODULE	LX	4801647	7	538400
A	4801649	PL		INTERFACE 1 WELDED MOD	L	4801649	8	538500
D	4801650		B	F/F 4FF WELDED MOD ASSY	LX	4801647	7	538600
J	4801651		E	STICK 2 ASSY SIDE A	L	4801637	6	538700
D	[illegible]		B	F/F 4FF WELDED MOD ASSY	LX	4801651	7	538800
D	4801652		A	AND INVERTER 5-1	LX	4801651	7	538900
A	4801652	PL		AND INVERTER TYPE 5-1	L	4801652	8	539000
D	4801653		A	AND INVERTER WELD MODULE	LX	4801651	7	539100
A	4801653	PL		AND INVERTER 2-1	L	4801653	8	539200
J	4801654		F	STICK 3 ASSY SIDE A	L	4801637	6	539300
D	4801655		A	OR INVERTER	LX	4801654	7	539400
A	4801655	PL		AND INVERTER 1-2	L	4801655	8	539500
D	4801656		A	AND INVERTER 3-2 WELD	LX	4801654	7	539600
A	4801656	PL		AND INVERT 3-2 WELD MOD	LX	4801656	8	539700

JPL 1867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 167 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4801657		A	AND INVERTER 5-2	LX	4801654	7	539800
A	4801657	PL		AND INVERTER TYPE 5-2	L	4801657	8	539900
J	4801658		E	STICK 4 ASSY SIDE A	L	4801637	6	540000
J	4801659		B	XFMR I-P MOD ASSEMBLY	LX	4801658	7	540100
D	4801660		A	INTERFACE IP WELD MODULE	LX	4801658	7	540200
D	4801661		B	OR INVERTER 1 WELDED MOD	LX	4801658	7	540300
D	4801661	PL		OR INVERTER TYPE 1	L	4801661	8	540400
D	4801662		A	AND INVERTER 1-1	LX	4801658	7	540500
A	4801662	PL		AND INVERTER TYPE 1-1	L	4801662	8	540600
D	4801663		C	AND INVERTER 4-3 WELDED	LX	4801658	7	540700
A	4801663	PL		AND INVERTER WELDED MOD	L	4801663	8	540800
J	4801664		E	STICK 5 ASSEMBLY SIDE A	L	4801637	6	540900
D	4801663		C	AND INVERTER 4-3 WELDED	LX	4801664	7	541000
D	4801665		B	AND INVERTER 4-2 WELDED	LX	4801664	7	541100
A	4801665	PL		AND INVERTER TYPE 4-2	L	4801665	8	541200
J	4801666		B	10.7 KC MV WELDED MODULE	LX	4801664	7	541300
A	4801666	PL	A	10.7 KC MV WELDED MODULE	L	4801666	8	541400
C	4801703		A	HEADER	L	4801666	8	541500
J	4801668		C	STICK 6 ASSY SIDE A	L	4801637	6	541600
J	4801659		B	XFMR I P MOD ASSEMBLY	LX	4801668	7	541700
C	4801703		A	HEADER	L	4801659	8	541720
D	4801660		A	INTERFACE IP WELD MODULE	LX	4801668	7	541800
D	4801667		A	SPECIAL PURPOSE CARD 1	LX	4801668	7	541820
D	4801669		B	TRS 1 11 WELDED MOD ASSY	LX	4801668	7	541900
C	4801703		A	HEADER	L	4801669	8	542000
C	4801670			CRYSTAL ASSY SIDE A	L	4801668	7	542100
C	4801704			HOUSING CRYSTAL SIDE A	L	4801670	8	542200
D	4801671		A	OSCILLATOR & FLIP FLOP	LX	4801668	7	542300
A	4801671	PL		OSCILLATOR WELDED MODULE	L	4801671	8	542400
D	4801672		A	DPD WELDED MODULE ASSY	LX	4801668	7	542500
A	4801672	PL		DPD WELDED MODULE	L	4801672	8	542600
J	4801673		D	STICK 1 ASSY SIDE B	L	4801637	6	542700
D	4801650		B	F/F 4FF WELDED MOD ASSY	LX	4801673	7	542800
D	4801653		A	AND INVERTER WELD MODULE	LX	4801673	7	542900
A	4801674	PL		AND INVERTER TYPE 3-1	L	4801674	8	543000
D	4801675		B	AND INVERTER 5-3 WELDED	LX	4801673	7	543100
J	4801676		D	STICK 2 ASSY SIDE B	L	4801637	6	543200
D	4801650		B	F/F 4FF WELDED MOD ASSY	LX	4801676	7	543300
D	4801655		A	OR INVERTER	LX	4801676	7	543400
D	4801661		B	OR INVERTER 1 WELDED MOD	LX	4801676	7	543500

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 168 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4801663		C	AND INVERTER 4-3 WELDED	LX	4801676	7	543600
A	4801675	PL		AND INVERTER TYPE 5-3	LX	4801676	7	543700
D	4801677		B	EMITTER FOLLOWER WELDED	LX	4801676	7	543800
A	4801677	PL		EMITTER FOLLOWER ASSY	L	4801677	8	543900
J	4801678		D	STICK 3 ASSY SIDE B	L	4801637	6	544000
D	4801650		B	F/F 4FF WELDED MOD ASSY	LX	4801678	7	544100
D	4801661		B	OR INVERTER 1 WELDED MOD	LX	4801678	7	544200
D	4801677		B	EMITTER FOLLOWER WELDED	LX	4801678	7	544220
J	4801679		D	STICK 4 ASSY SIDE B	L	4801637	6	544300
D	4801650		B	F/F 4FF WELDED MOD ASSY	LX	4801679	7	544400
D	4801662		A	AND INVERTER 1-1	LX	4801679	7	544500
J	4801680		D	STICK 5 ASSY SIDE B	L	4801637	6	544600
D	4801648		B	XFORMER 11 WELDED MOD	LX	4801680	7	544700
C	4801703		A	HEADER	L	4801648	8	544800
D	4801681		B	COUNTER SHIFT REGISTER	LX	4801680	7	544900
D	4101644		A	SHIELD TRANSITION	L	4101335	3	549915
A	4801681	PL		COUNTER/SHIFT REGISTER	L	4801681	8	545000
J	4801682		E	STICK 6 ASSY SIDE B	L	4801637	6	545100
D	4801650		B	F/F 4FF WELDED MOD ASSY	LX	4801682	7	545200
D	4801681		B	COUNTER SHIFT REGISTER	LX	4801682	7	545300
D	4801683		A	DIGITAL DUMP	LX	4801682	7	545400
A	4801683	PL		CDR WELDED MODULE	LX	4801683	8	545500
J	4801698		F	MASTER SCHEMATIC SIDE A	L	4801637	6	545600
A	4801698	PL	E	NRT DAS	L	4801698	7	545700
B	4801699			WEDGE CONICAL	L	4801637	6	545800
B	4801710	WL	A	SIDE A & SIDE B NRT-DAS	L	4801637	6	545810
D	4801781			M.F.S.S. ASSEMBLY	L	4801216	5	545900
D	4801780			SUBCHASSIS M.L.S.S. ASSY	L	4801781	6	546000
B	90433			SURFACE TREATMENT	L	4801780	7	546010
B	4900566		A	9W21 W HARNESS	L	4801216	5	546500
B	4900579		B	9W27 W HARNESS	L	4801216	5	546600
J	4900665		A	CASE 3 HARNESS ASSY	L	4801216	5	546700
B	4900565		F	9W20 WIRING HARNESS	L	4900665	6	546800
D	4900661			SPT ASSY CASE HARNESS	L	4900665	6	547300
D	4900659		B	BRACKET CONNECTOR MTG	L	4900661	7	547400
C	4900658		A	END BRACKET	L	4900659	8	547500
C	4900670		A	END BRACKET	L	4900659	8	547600
J	4900660		B	SUPPORT CABLE HARNESS	L	4900661	7	547700
D	4900671			BRACKET CONNECTOR MTG	L	4900661	7	547800
D	4901158		A	SCREW MACHINE PAN HEAD	L	4801216	5	547900

JPL 1367 JUN 63

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 169 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4901159		A	SCREW MACHINE INTERNAL	L	4801216	6	547910
J	4101305		E	THERMAL CONTROL	L	4101300	2	548000
J	4101330		C	LOUVER BASIC CHASSIS	L	4101305	3	548100
C	90516			SPECIMEN TENSIL TEST	L	4101330	4	548115
D	4101331		A	SUPPORT LOUVER SUBASSY	L	4101330	4	548200
	DS 110			NUT-PRESS BLIND	L	4101331	5	548210
C	4101332		A	SIDE-LOUVER RACK	L	4101330	4	548300
A	90302			SURFACE TREATMENT	L	4101332	5	548310
D	4101333		A	ACTR COMPLETE LOUVER	L	4101330	4	548400
A	90347			SCREW MACHINE	L	4101333	5	548410
D	4101334		A	HSG LOUVER ACTR SUBASY	L	4101333	5	548500
D	4101335		A	ACTR LOUVER SUBASSY	L	4101333	5	548600
C	4101336		A	ACTUATOR LOUVER	L	4101335	6	548700
C	4101337		A	SPOOL LOUVER ACTR SUBASY	L	4101335	6	548800
D	4101347		A	BASE ACTR HSG SUBASSY	L	4101333	5	548900
D	4101338		A	INSUL LOUVER ACTR SUBASY	L	4101330	4	549000
D	4101339		A	COVER LOUVER ACTR SUBASY	L	4101338	5	549100
A	90302			SURFACE TREATMENT	L	4101339	6	549110
D	4101340		A	LINER ACTR COVER ASSY	L	4101338	5	549200
D	4101341		A	LOUVER SUBASSY	L	4101330	4	549300
A	90302			SURFACE TREATMENT	L	4101341	5	549310
B	4101342			DRIVE SHAFT LOUVER	L	4101341	5	549400
C	4101343		A	BEARING SUBASY THRUST	L	4101341	5	549500
C	4101344		A	HOUSING LOUVER BEARING	L	4101343	6	549600
B	4101345			BEARING LOUVER	L	4101343	6	549700
C	4101346			SHAFT THRUST LOUVER	L	4101343	6	549800
D	4901161		A	SCREW MACHINE INTERNAL	L	4101330	4	549900
J	4101641			BRACKET SUPPORT ASSY	L	4101305	3	549910
J	4101651		A	THERMAL SHIELD FULL PNL	L	4101305	3	550000
A	90302			SURFACE TREATMENT	L	4101651	4	550010
J	4101652		A	THERMAL SHIELD FULL PNL	L	4101305	3	550100
A	90302			SURFACE TREATMENT	L	4101652	4	550110
C	4101653			THERM SHIELD UPPER CHAN	L	4101305	3	550200
A	90302			SURFACE TREATMENT	L	4101653	4	550210
C	4101654			THERM SHIELD LOWER CHAN	L	4101305	3	550300
A	90302			SURFACE TREATMENT	L	4101654	4	550310
D	4101655		B	THERMAL SHIELD CORNER	L	4101305	3	550400
A	90302			SURFACE TREATMENT	L	4101655	4	550410
B	4101723			SPACER CORNER THERM SHLD	L	4101655	4	550500
D	4101656		A	THERMAL SHIELD CORNER	L	4101305	3	550600

JPL 1887 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 170 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	90302			SURFACE TREATMENT	L	4101656	4	550610
B	4101723			SPACER CORNER THERM SHLD	L	4101656	4	550700
D	4101657		A	THERMAL SHIELD CORNER D	L	4101305	3	550800
A	90302			SURFACE TREATMENT	L	4101657	4	550810
B	4101723			SPACER CORNER THERM SHLD	L	4101657	4	550900
J	4101658		A	THERMAL SHIELD CORNER G	L	4101305	3	551000
A	90302			SURFACE TREATMENT	L	4101658	4	551010
B	4101723			SPACER CORNER THERM SHLD	L	4101658	4	551100
A	4101659		A	THERMAL SHIELD CORNERS	L	4101305	3	551200
A	90302			SURFACE TREATMENT	L	4101659	4	551210
B	4101723			SPACER CORNER THERM SHLD	L	4101659	4	551300
J	4101698			THERM SHIELD CORNER A	L	4101305	3	551400
A	90302			SURFACE TREATMENT	L	4101698	4	551410
B	4101723			SPACER CORNER THERM SHLD	L	4101698	4	551500
D	4101706		A	SUN SHADE BAY 2 ASSY	L	4101305	3	551600
J	4101708		A	SHADE JET VANE BAY 2	L	4101706	4	551700
J	4101710		A	UPPER THERMAL SHIELD ASY	L	4101305	3	551800
D	4101626			CHANNEL ATTACH BAY 4	L	4101710	4	551802
D	4101627		A	CHANNEL ATTACH BAYS	L	4101710	4	551803
C	4101635		A	CHAN ATTACH BAY 2 & 6	L	4101710	4	551804
C	4101636		A	CHAN ATTACH BAY 2 & 6	L	4101710	4	551805
J	4101711		A	UPPER THERMAL SHIELD	L	4101710	4	551807
C	4101735			TEMP XDUCER UP THERMAL	L	4101711	5	551810
	DS 108			TRANSDUCER SURFACE TEMP	L	4101735	6	551812
B	4101733			MTG PLATE TRANSDUCER	L	4101735	6	551815
C	4101719			ANGLE ATTACH UP BAY 1&7	L	4101710	4	551820
A	90302			SURFACE TREATMENT	L	4101719	5	551825
C	4101722			ANGLE ATTACH UPPER BAY 8	L	4101710	4	551900
4	4101712		A	LOWER THERMAL SHIELD	L	4101305	3	552000
D	4101528		A	ANGLE ATTACH	L	4101712	4	552010
D	4101628		A	ANGLE ATTACH BAY 1&7	L	4101712	4	552015
D	4101629		A	ANGLE ATTACH LONG	L	4101712	4	552020
D	4101630		A	ANGLE ATTACH LONG BAY	L	4101712	4	552030
D	4101632			ANGLE ATTACH BAY 3	L	4101712	4	552040
D	4101649			CLIP ANGLE	L	4101712	4	552100
D	4101650			CLIP ANGLE	L	4101712	4	552200
J	4101713		A	LOWER THERMAL SHIELD	L	4101712	4	552210
B	90491			TEFLON SHEET ALUMINIZED	L	4101713	5	552213
B	90570			TEFLON SHEET	L	4101713	5	552214
C	4101734			TEMP XDUCER LO THERMAL	L	4101713	5	552215

JPL 1887 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 171 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
	DS 108			TRANSDUCER SURFACE TEMP	L	4101734	6	552217
B	4101732			HEAT SINK TRANSDUCER	L	4101734	6	552220
B	4101733			MTG PLATE TRANSDUCER	L	4101734	6	552225
J	4101714		A	RETARDER SHIELD ASSY	L	4101305	3	552300
B	90570			TEFLON SHEET	L	4101714	4	552310
C	90577			DACRON SILICONE COATED	L	4101714	4	552315
D	4101715			THERMAL SHIELD-MAGNETO	L	4101305	3	552400
B	90491			TEFLON SHEET ALUMINIZED	L	4101715	4	552410
J	4101716			THERMAL SHIELD JET VANE	L	4101305	3	552500
C	90577			DACRON SILICONE COATED	L	4101716	4	552510
J	4101717			SCIENCE SHIELD ASSY	L	4101305	3	552600
B	90570			TEFLON SHEET	L	4101717	4	552610
J	4101648			HOPP THERMAL SHIELD	L	4101717	4	552700
D	4101718			THERMAL BLANKET UMBILICL	L	4101305	3	552800
D	4101707			COUBLER THERMAL SHILLD	L	4101718	4	552900
C	4101720			THERMAL SHIELD LWR RING	L	4101305	3	553000
D	4101687		A	THERMAL SHIELD	L	4101720	4	553100
D	4101721		A	SUN SHADE BAY 6 ASSEMBLY	L	4101305	3	553200
J	4101803			SUN SHADE BAY 8	L	4101721	4	553220
C	4101731			THERMAL SHIELD UMBILICAL	L	4101305	3	553500
D	4101718			THERMAL BLANKET UMBILICL	L	4101731	4	553600
C	90577			DACRON SILICONE COATED	L	4101718	5	553602
J	4101637		C	SUN SHADE BAY 8	L	4101305	3	553605
J	4101738		A	SHIELD TRANSITION	L	4101305	3	553607
	DS 84			SCREW FH TORQUE PAN HEAD	L	4101738	4	553608
J	4101642			BRACKET SUPPORT ASSY	L	4101738	4	553609
J	4101643			BRACKET SUPPORT ASSY	L	4101738	4	553610
D	4101644		A	SHIELD TRANSITION ASSY	L	4101738	4	553611
J	4101739			THERMAL SHIELD FULL PNL	L	4101305	3	553612
A	90302			SURFACE TREATMENT	L	4101739	4	553613
D	4101758			SUN SHADE BAY 2 & 6	L	4101305	3	553615
A	90302			SURFACE TREATMENT	L	4101758	4	553617
C	4101781			RETAINER THERMAL SHIELD	L	4101305	3	553620
A	90302			SURFACE TREATMENT	L	4101781	4	553625
D	4101782		A	SHADE BAY 1 7	L	4101305	3	553630
A	90302			SURFACE TREATMENT	L	4101782	4	553635
J	4101787			THERMAL SHIELD CORNERS	L	4101305	3	553640
A	90302			SURFACE TREATMENT	L	4101787	4	553645
J	4101788			THERMAL SHIELD CORNER G	L	4101305	3	553650
A	90302			SURFACE TREATMENT	L	4101788	4	553652

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 172 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	4101801			THERMAL SHIELD BAY 5	L	4101305	3	553655
D	4101805			BLANKET SUN SENSOR	L	4101305	3	553660
J	4101306		A	SOLAR PANEL ASSY	L	4101300	2	553700
	DS 82			SCREW-INTERNAL WRENCHING	L	4101306	3	553710
A	90347			SCREW MACHINE	L	4101306	3	553715
4	4100556		C	SOLAR PNL STR ASSEMBLY	L	4101306	3	553800
D	4100557		A	INTERCOSTAL INSTL-SOLAR	L	4100556	4	553900
J	4100558		D	SPAR ASSY SOLAR PANEL	L	4100556	4	554000
D	4100561		B	FTG-HINGE&ACTUATOR	L	4100558	5	554100
D	4100562		B	FTG-HINGE SOLAR PANEL	L	4100558	5	554200
D	4100564		B	SUPPORT-SPRING DAMPER	L	4100558	5	554300
D	4100559		B	INTERCOSTAL INSTL	L	4100556	4	554400
D	4100560		C	FTG-ATTACH SPG DAMPER	L	4100556	4	554500
D	4100565		C	GUIDE FRAME-DAMPER	L	4100556	4	554600
C	4100567		A	SPACER-TIE DOWN CABLE	L	4100556	4	554700
J	4100568		A	TORSION BRACE-SOL PANEL	L	4100556	4	554800
D	4101692		A	FITTING ASSY SOLAR PANEL	L	4100556	4	554900
J	4101697		A	RAIL ASSY	L	4101306	3	555000
	DS 81			SCREW-CLOSE TOLERANCE	L	4101697	4	555010
B	90433			SURFACE TREATMENT	L	4101697	4	555015
A	90537			ANODIC COATING	L	4101697	4	555020
C	4101696		A	SPRING SOLAR PANEL RAIL	L	4101697	4	555100
C	4101802			CLIP SOLAR PANEL HARNESS	L	4101306	3	555110
C	4101749			VANE GUIDE SOLAR PANEL	L	4101306	3	555120
A	90537			ANODIC COATING	L	4101749	4	555125
D	4201720			LATCH ASSY SOLAR VANE	L	4101306	3	555200
J	4201721		A	BRIDGE ASSY	L	4201720	4	555300
C	4201722			SHAFT	L	4201720	4	555400
A	90401			PASSIVATION SS	L	4201722	5	555500
C	4201723			COLLAR	L	4201720	4	555600
B	4201725			BUSHING	L	4201720	4	555700
B	4201726			RETAINER BUSHING	L	4201720	4	555800
B	4201727			PIN	L	4201720	4	555900
B	4201728			DOUBLER	L	4201720	4	556000
B	4201729			PAD	L	4201720	4	556100
C	4201730			SPRING	L	4201720	4	556200
B	4201746			RETAINING CLIP	L	4201720	4	556300
C	4201765			STRAP ASSY	L	4201720	4	556400
C	4201724		B	STRAP	L	4201765	5	556500
B	4201764			SLIDE BUSHING	L	4201765	5	556600

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

MARINER C OFFSET — PAGE 173 — DATE LISTED 08/27/65

DRAWING LIST, OFFSET

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4201801			SHADE THERMAL SHIELD	L	4101306	3	556700
J	4201851			SOLAR VANE ASSEMBLY	L	4101306	3	556800
J	4400611		B	SOLAR PANEL CELL ASSY	L	4101306	3	556900
D	4400523		H	FABRICATION	V	4400611	4	557000
B	4400524		C	FABRICATION	V	4400611	4	557100
J	4400610			SOLAR PANEL SCHEMATIC	L	4400611	4	557200
B	4400626	DL		SOLAR PANEL CELL ASSY	L	4400611	4	557300
C	4400627			GROMMET SOLAR PANEL CELL	L	4400611	4	557400
D	4400625		A	BUS BAR CELL SUBMODULE	L	4400629	5	557500
C	4400630		B	SUBMODULE ASSY BASIC	L	4400611	4	557600
C	4201704		D	P CONTACT WIR SOLAR CELL	L	4400630	5	557700
D	4201705		D	N BUS BAR SOLAR CELL	L	4400630	5	557800
C	4400631			SUB MODULE ASSY	L	4400611	4	557900
C	4400630		B	SUBMODULE ASSY BASIC	L	4400631	5	558000
C	4201704		D	P CONTACT WIR SOLAR CELL	L	4400631	5	558100
D	4201705		D	N BUS BAR SOLAR CELL	L	4400631	5	558200
C	4400632		A	SUB MODULE ASSY	L	4400611	4	558300
D	4201704		C	P CONTACT WIR SOLAR CELL	L	4400632	5	558400
D	4201705		D	N BUS BAR SOLAR CELL	L	4400632	5	558500
C	4400628		A	N CONTACT WIR SOLAR CELL	L	4400632	5	558600
C	4400630		B	SUBMODULE ASSY BASIC	L	4400632	5	558700
J	4400651			CIRCUIT BOARD 1 ASSY	L	4400611	4	558800
D	4400652			SUPPORT CB ASSY	L	4400651	5	558900
D	4400653			INSULATION BOARD CB ASSY	L	4400651	5	559000
C	4400660			CIRCUIT STRIP WELDMENT	L	4400651	5	559100
C	4400663		B	TERMINAL TERMINAL STRIP	L	4400660	6	559200
J	4400525		A	ETCH PATTERN TERMINALS	L	4400663	7	559300
C	4400662		A	TERMINAL	L	4400651	5	559400
J	4400654			CIRCUIT BOARD 3 ASSY	L	4400611	4	559500
D	4400655			SUPPORT CB3 ASSY	L	4400654	5	559600
D	4400656			INSULATION BOARD CB3 ASY	L	4400654	5	559700
C	4400660			CIRCUIT STRIP WELDMENT	L	4400654	5	559800
C	4400661		A	TERMINAL	L	4400654	5	559900
J	4400527		A	ETCH PATTERN TERMINALS	L	4400661	6	560000
C	4400665		A	TB1 ASSY	V	4400611	6	560100
C	4400661		A	TERMINAL	L	4400665	7	560200
J	4400527		A	ETCH PATTERN TERMINALS	L	4400661	8	560300
C	4400666			SUPPORT TB1 ASSY	L	4400665	7	560400
C	4400667		A	INSULATION BOARD TB1 ASY	L	4400665	7	560500
C	4400662		A	TERMINAL	L	4400654	5	560600

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

MARINER C OFFSET — PAGE 174 — DATE LISTED 08/27/65

DRAWING LIST, OFFSET

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	4400526		A	ETCH PATTERN TERMINALS	L	4400662	6	560700
J	4400657			CIRCUIT BOARD 4 ASSY	L	4400611	4	560800
D	4400658			SUPPORT CB4	L	4400657	5	560900
D	4400659			INSULATION BOARD CB4	L	4400657	5	561000
C	4400660			CIRCUIT STRIP WELDMENT	L	4400657	5	561100
C	4400661		A	TERMINAL	L	4400657	5	561200
J	4400527		A	ETCH PATTERN TERMINALS	L	4400661	6	561300
C	4400662		A	TERMINAL	L	4400657	5	561400
J	4400664			CIRCUIT BOARD 2 ASSY	L	4400611	4	561500
D	4400652			SUPPORT CB ASSY	L	4400664	5	561600
D	4400653			INSULATION BOARD CB ASSY	L	4400664	5	561700
C	4400668		A	TERMINAL BOARD 2 ASSY	L	4400611	4	561800
C	4400669		A	SUPPORT TB2 ASSY	L	4400668	5	561900
C	4400670		A	INSULATION BOARD TB2 ASY	L	4400668	5	562000
C	4400674			ISC-VOC XDUCER ASSY	L	4400611	4	562100
C	4400671		A	CB5 ASSY	L	4400674	5	562200
C	4400672		A	SUPPORT CB5 ASSY	L	4400671	6	562300
C	4400673		A	INSULATION BOARD CB5 ASY	L	4400671	6	562400
C	4400675			CIRCUIT STRIP CB5 ASSY	L	4400671	6	562500
C	4400678			ISC-VOC CELL ASSY	L	4400674	5	562600
J	4900630		B	SOLAR PANEL CABLE INSTL	L	4101306	3	562700
A	90347			SCREW MACHINE	L	4900630	4	562800
B	4400528	WL	A	MC PWR SYSTEM SOLAR PNL	L	4900630	4	562900
D	4400677			TEMPERATURE XDUCER INSTL	L	4900630	4	563000
C	4400676			TEMPERATURE TRANSDUCER	L	4400677	5	563100
J	4900629		B	SOLAR PANEL WIRING DGM	L	4900630	4	563200
J	4400610			SOLAR PANEL SCHEMATIC	L	4900629	5	563300
C	4900631			STANDOFF	L	4900630	4	563400
C	4900632		A	TERMINAL BOARD TB1 ASSY	L	4900630	4	563500
B	4900672			TERMINAL BOARD	L	4900630	4	563600
B	4901152			GROMMET	L	4900630	4	563700
J	4101700		C	DEPLOYMENT SPRING	L	4101300	2	563800
	DS 83			SCREW-INTERNAL WRENCHING	L	4101700	3	565610
	DS 85			SCREW-HI-TORQUE PAN HEAD	L	4101700	3	565615
	DS 204			SCREW-INTERNAL WRENCHING	L	4101700	3	565620
C	4101477			ACTUATOR	L	4101700	3	565640
C	4101701			SPRING SPIRAL TORSION	L	4101700	3	565700
C	4101702			ARBOR	L	4101700	3	565800
C	4101703			STANDOFF	L	4101700	3	565900
C	4101704			SHAFT	L	4101700	3	566000

JPL 1367 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 175 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	4101705			BRACKET	L	4101700	3	566010
B	4101730			SPACER SOLAR PANEL HINGE	L	4101700	3	566020
C	4101748			SWITCH ASSY	L	4101700	3	566030
C	4101725			PAD PLUNGER	L	4101300	2	566100
A	90302			SURFACE TREATMENT	L	4101725	3	566105
D	4101726		B	PATCH ASSY SOLAR PANEL	L	4101300	2	566120
D	4101779		A	CRUISE DAMPER INSTL	L	4101300	2	566200
	DS 82			SCREW INTERNAL WRENCHING	L	4101779	3	566210
J	4101760			CRUISE DAMPER ASSY	L	4101779	3	566300
D	90568			O RING	L	4101760	4	566305
B	4101537		A	SPRING CRUISE DAMPER	L	4101760	4	566310
B	4101539			FILL PLUG ASSY	L	4101760	4	566320
J	4101761			BODY SOLAR PANEL CRUISE	L	4101760	4	566330
C	4101762			SHAFT CRUISE DAMPER	L	4101760	4	566340
C	4101763			SPRING SOLAR PANEL	L	4101760	4	566350
C	4101764			NUT PISTON CRUISE DAMPER	L	4101760	4	566360
C	4101765		A	PISTON CRUISE DAMPER	L	4101760	4	566370
C	4101767			PISTON COMPENSATOR	L	4101760	4	566380
C	4101768			WASHER COMPENSATOR	L	4101760	4	566390
C	4101769			HOUSING COMPENSATOR	L	4101760	4	566400
C	4101770			NUT CRUISE DAMPER MARK	L	4101760	4	566410
C	4101771			LATCH ASSY SOLAR PNL	L	4101779	3	566500
B	4101543			SPRING LATCH	L	4101771	4	566510
C	4101772			PROBE LATCH CRUISE CAMP	L	4101771	4	566520
C	4101774		A	SLEEVE LATCH	L	4101771	4	566530
C	4101775			STRIKER LATCH CRUISE	L	4101771	4	566540
C	4101776			END PLATE LATCH CRUISE	L	4101771	4	566550
C	4101773		A	COLLET LATCH	L	4101779	3	566560
C	4101777		A	BRACKET LATCH CRUISE	L	4101779	3	566570
D	4901163		A	SCREW MACHINE INTERNAL	L	4101779	3	566580
D	4201693		A	DEPLOYMENT MECHANISM ASY	L	4101300	2	566800
D	4201694			BASE DEPLOYMNT MECHANISM	L	4201693	3	566900
D	4201695		A	LEVER LEFT	L	4201693	3	567000
C	4201747			BEARING LEVER	L	4201695	4	567100
C	4201696		B	SPRING	L	4201693	3	567200
C	4201697			PIN PIVOT	L	4201693	3	567300
A	90401			PASSIVATION SS	L	4201697	4	567400
C	4201698			PIN RETAINER	L	4201693	3	567500
A	90401			PASSIVATION SS	L	4201698	4	567600
D	4201700		A	LEVER RIGHT	L	4201693	3	567700

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 176 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	4201747			BEARING LEVER	L	4201700	4	567800
C	4201748			PIN RETAINER	L	4201693	3	567900
A	90401			PASSIVATION SS	L	4201748	4	568000
J	4201710		B	SOLAR VANE ASSY	L	4101300	2	568100
C	4201711		A	BRACKET	L	4201710	3	568200
C	4201712		A	SOCKET OUTER	L	4201710	3	568300
C	4201713		A	SOCKET INNER	L	4201710	3	568400
B	4201714		A	SPRING	L	4201710	3	568500
B	4201715			BUSHING	L	4201710	3	568600
B	4201716			PIN	L	4201710	3	568700
B	4201717			WASHER	L	4201710	3	568800
B	4201718			TUBE OUTER	L	4201710	3	568900
B	4201719			TUBE INNER	L	4201710	3	569000
B	4201787			PAD RETAINER	L	4201710	3	569100
C	4201799		A	BRACKET VANE SHADE	L	4101300	2	569200
4	4700700		A	POST INJECTION PRPLN	L	4101300	2	569400
	DS 81			SCREW-CLOSE TOLERANCE	L	4700700	3	569410
C	90273			WASHER COUNTERSUNK	L	4700700	3	569415
J	4700600		B	POST INJECTION	L	4700700	3	569500
D	3157766		B	DISC ATTACH ASSY	L	4700600	4	569600
D	3157767		A	PLATE	L	3157766	5	569700
D	3157768		B	CHANNEL	L	3157766	5	569800
B	3157827		B	CLIP	L	3157766	5	569900
C	3157825		B	GASKET THERMAL	L	4700600	4	570000
D	4101514		B	MOUNT ASSY MID-COURSE	L	4700600	4	570100
	DS 82			SCREW INTERNAL WRENCHING	L	4101514	5	570110
J	4101516		B	FRAME ASSY MID-COURSE	L	4101514	5	570200
D	4101517		A	FITTING TUBE BOTTOM	L	4101516	6	570300
D	4101518		A	FITTING TUBE SHEAR PLATE	L	4101516	6	570400
D	4101519		A	FITTING TUBE SHEAR PLATE	L	4101516	6	570500
D	4101520		A	FITTING TUBE TOP	L	4101516	6	570600
C	4101521			FITTING TUBE	L	4101516	6	570700
D	4101522			TUBE BENT FRAME	L	4101516	6	570800
D	4101523		A	TUBE FRAME	L	4101516	6	570900
C	4101526			TUBE TORQUE	L	4101516	6	571000
C	4101783			BLOCK MOUNTING	L	4101514	5	571210
C	4101784			BLOCK MOUNTING	L	4101514	5	571220
C	4101785			BLOCK MOUNTING	L	4101514	5	571230
D	4700346		A	SHIELD THERMAL LOW DISK	L	4700600	4	571400
J	4700601		E	PROPELLANT SYS INSTAL	L	4700600	4	571500

JPL 1867 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 177 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	90273			WASHER COUNTERSUNK	L	4700601	5	571600
C	90342			SEAL METALLIC	L	4700601	5	571700
A	90346			SCREW INTERNAL	L	4700601	5	571800
A	90449			TREAD LUBRICANT	L	4700601	5	571900
C	3157761		B	SCREEN ASSY	L	4700601	5	572000
C	3157762		B	SCREEN BRAZEMENT	L	3157761	6	572100
C	3153106		D	SCREEN	L	3157762	7	572200
C	3157769		B	RING	L	3157762	7	572300
J	4700602		C	NITROGEN SYSTEM INSTL	L	4700601	5	572400
C	90273			WASHER COUNTERSUNK	L	4700602	6	572500
C	90342			SEAL METALLIC	L	4700602	6	572600
A	90346			SCREW INTERNAL	L	4700602	6	572700
A	90449			TREAD LUBRICANT	L	4700602	6	572800
J	4700603		C	START SYSTEM INSTL	L	4700602	6	572900
C	90273			WASHER COUNTERSUNK	L	4700603	7	573000
J	4700604		C	ENGINE STRUCTURE ASSY	L	4700603	7	573100
C	90273			WASHER COUNTERSUNK	L	4700604	8	573200
A	90346			SCREW INTERNAL	L	4700604	8	573300
A	90449			TREAD LUBRICANT	L	4700604	8	573400
J	4700618		C	ENGINE STRUCTURE SUBASSY	L	4700604	8	573500
C	90273			WASHER COUNTERSUNK	L	4700618	9	573600
A	90346			SCREW INTERNAL	L	4700618	9	573700
A	90449			TREAD LUBRICANT	L	4700618	9	573800
J	4700606		A	STRUCTURE TANK SUPP ASSY	L	4700618	9	573900
J	4700671		A	STRUCTURE TANK SUPP	L	4700606	10	574000
J	4700672		A	RING TANK SPT STRUCTURE	L	4700671	11	574100
C	4700673			STRUT TANK SUPPORT	L	4700671	11	574200
D	4700679			FITTING TANK SUPPORT	L	4700671	11	574300
J	4700674		B	THRUST PLATE ASSY	L	4700618	9	574400
J	4700675			THRUST PLATE BRAZEMENT	L	4700674	10	574500
J	4700676		A	PLATE THRUST	L	4700675	11	574600
D	4700677			CONE THRUST PLATE	L	4700675	11	574700
J	4700678		B	COVER THRUST PLATE	L	4700675	11	574800
C	4700733			RING THRUST PLATE	L	4700675	11	574900
D	4700681		A	CONTROL DWG	L	4700618	9	575000
D	4700720			ENGINE ROCKET ASSY	L	4700618	9	575100
D	4700721			ENGINE ROCKET	L	4700720	10	575200
J	4700722		B	INJECTOR ASSY	L	4700721	11	575300
C	4700723		A	INJECTOR WELDMENT	L	4700722	12	575400
C	3153106		D	SCREEN	L	4700723	13	575500

JPL 2867 JUN 63

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 178 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	4700724			INJECTOR COATED	L	4700723	13	575600
D	4700725		B	INJECTOR 1ST WELDMENT	L	4700724	14	575700
D	3153109		B	DOME INJECTOR	L	4700725	15	575800
B	3153110		B	CLOSURE	L	4700725	15	575900
B	3153111		B	NOZZLE SPRAY PROPELLANT	L	4700725	15	576000
D	4700726		A	PROPELLANT TUBE INJECTOR	L	4700725	15	576100
A	90128			SERRATION STANDARD	L	4700722	12	576200
A	90399			PASSIVATION SS	L	4700722	12	576300
C	4700727		A	TUBE OXIDIZER WELDMENT	L	4700725	15	576400
C	3153106		D	SCREEN	L	4700727	16	576500
B	4700161		A	TUBE OXID FLARED WELDMNT	L	4700727	16	576600
B	3153027		B	TUBE OXID FLARED	L	4700161	17	576700
B	4700162		A	NOZZLE OXIDIZER	L	4700161	17	576800
C	4700728		A	FITTING OXID INLET	L	4700727	16	576900
C	4700729			NUT OXIDIZER INLET	L	4700727	16	577000
D	4700730			SHELL WELDMENT	L	4700721	11	577100
C	4700212		B	SHELL COATED	L	4700730	12	577200
C	4700211		B	SHELL	L	4700212	13	577300
A	90302			SURFACE TREATMENT	L	4700211	14	577400
C	4700731			NOZZLE WELDMENT	L	4700730	12	577500
C	3153106		D	SCREEN	L	4700731	13	577600
B	3153126		A	ROD SUPPORT	L	4700731	13	577700
C	4700732		A	TUBE TRANSDUCER	L	4700731	13	577800
J	4700736		B	NOZZLE ROCKET ENGINE	L	4700731	13	577900
A	90302			SURFACE TREATMENT	L	4700736	14	578000
C	4700665			NUT PIPS	L	4700604	8	578100
D	4700666	CD	A	TRANSDUCER CHAMBER	L	4700604	8	578200
J	4700743		A	SPT JET VANE ACTUATOR	L	4700604	8	578300
B	4700648			SHIM	L	4700603	7	578400
J	4700649		E	START SYSTEM ASSEMBLY	L	4700603	7	578500
[illegible]	[illegible]			LOCKED COUNTERSUNK	L	4700649	8	578600
C	90342			SEAL METALLIC	L	4700649	8	578700
A	90346			SCREW INTERNAL	L	4700649	8	578800
A	90449			TREAD LUBRICANT	L	4700649	8	578900
D	4700615			CAP FILL VALVE	L	4700649	8	579000
D	4700650		A	MANIFOLD ASSY OXIDIZER	L	4700649	8	579100
D	4700651			SPRING GUIDE PIPS	L	4700650	9	579200
J	4700652		B	BODY MANIFOLD OXIDIZER	L	4700650	9	579300
A	90128			SERRATION STANDARD	L	4700652	10	579400
C	4700653		A	SPRING COMPRESS MANF	L	4700650	9	579500

JPL 2867 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 179 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	4700656		C	VALVE BODY OXIDIZER ASY	L	4700649	8	579600
A	90128			SERRATION STANDARD	L	4700656	9	579700
A	90399			PASSIVATION SS	L	4700656	9	579800
A	90401			PASSIVATION SS	L	4700656	9	579900
D	4700657			BODY VALVE ASSY	L	4700656	9	580000
C	4700755			RAM NORMALLY CLOSE	L	4700656	10	580020
D	4700659		C	TRANSDUCER INSTL	L	4700649	8	580100
A	90449			TREAD LUBRICANT	L	4700659	9	580200
D	90568			O RING & GASKET STDS	L	4700659	9	580300
D	4700615			CAP FILL VALVE	L	4700659	9	580400
C	4700616		B	SCREW VALVE ASSY	L	4700659	9	580500
D	4700617		B	SCREW	L	4700616	10	580600
J	4700660		C	CARTRIDGE OXIDIZER-ASSY	L	4700659	9	580700
A	90128			SERRATION STANDARD	L	4700660	10	580800
J	4700661		A	CARTRIDGE OXID WELDMENT	L	4700660	10	580900
J	4700662		B	CARTRIDGE SHELL	L	4700661	11	581000
D	4700663	CD	B	BELLOWS RESERVOIR WELD	L	4700661	11	581100
D	4700715			FITTING FILL	L	4700661	11	581200
D	4700664	CD	A	XDUCER OXID	L	4700659	9	581300
C	4700665			NUT PIPS	L	4700659	9	581400
D	4700631			TANK SHELL NITROGEN	L	4700602	6	581500
D	4700632			SPIDER NITROGEN WELD	L	4700602	6	581600
D	4700633			SPIDER NITROGEN TANK	L	4700632	7	581700
C	4700634			STLD SPIDER NITROGEN	L	4700632	7	581800
D	4700635		A	NITROGEN SYS ASSY	L	4700602	6	581900
D	4700615			CAP FILL VALVE	L	4700635	7	582000
C	4700637		A	SCREW VALVE ASSY	L	4700635	7	582100
D	4700636			SCREW VALVE	L	4700637	8	582200
D	4700638		A	SCREW VALVE	L	4700637	8	582300
J	4700654		C	NITROGEN SYSTEM WELDMENT	L	4700635	7	582400
A	90449			TREAD LUBRICANT	L	4700654	8	582500
C	4700614			NUT HEX	L	4700654	8	582600
D	4700627		B	MANIFOLD NITROGEN	L	4700654	8	582700
A	90128			SERRATION STANDARD	L	4700627	9	582800
D	4700716	CD	A	MANF BRAZEMENT NITROGEN	L	4700627	9	582900
D	4700717		A	BODY NITROGEN MANIFOLD	L	4700716	10	583000
C	4700718		A	FITTING NITROGEN MANF	L	4700716	10	583100
D	4700639	CD	B	XDUCER PRESS	L	4700654	8	583200
J	4700696		C	VALVE NITROGEN ASSY	L	4700654	8	583300
A	90399			PASSIVATION SS	L	4700696	9	583400

JPL 1357 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 180 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	4700754			RAM NORMALLY CLOSED	L	4700696	10	583420
J	4700640		B	REGULATOR ASSEMBLY	L	4700654	8	583500
C	90273			WASHER COUNTERSUNK	L	4700640	9	583600
A	90449			TREAD LUBRICANT	L	4700640	9	583700
D	90568			O RING & GASKET STDS	L	4700640	9	583800
D	3157734		B	SPRING INSTL	L	4700640	9	583900
D	3157747		C	GUIDE OUTSIDE ASSY PRESS	L	3157734	10	584000
D	3157748		C	GUIDE INSIDE ASSY PRESS	L	3157734	10	584100
B	3157749		C	BELLEVILLE SPRING	L	3157734	10	584200
C	3157735		A	CAGE PRESSURE REGULATOR	L	4700640	9	584300
D	3157737		C	CAP PRESSURE REGULATOR	L	4700640	9	584400
C	3157745		B	FLANGE INLET	L	4700640	9	584500
A	90128			SERRATION STANDARD	L	3157745	10	584600
C	3157750		C	SPRING PRESSURE REGULATR	L	4700640	9	584700
C	3157758		A	BALL SAPPHIRE	L	4700640	9	584800
D	4700641		D	HOUSING PRESSURE REGULAT	L	4700640	9	584900
C	4700643		A	PLUG PRESSURE REGULATOR	L	4700640	9	585000
J	4700644		A	BODY WELDMENT	L	4700640	9	585100
C	3157740		B	FLANGE OUTLET	L	4700644	10	585200
A	90128			SERRATION STANDARD	L	3157740	11	585300
J	4700645		B	BODY PRESSURE REGULATOR	L	4700644	10	585400
C	4700646		A	TUBE OUTLET	L	4700644	10	585500
D	4700647			ACTUATOR ASSY	L	4700644	10	585600
C	3157751		C	RING BACKUP PRESSURE REG	L	4700647	11	585700
C	4700642			SCREW PRESSURE REG	L	4700647	11	585800
D	4700686		A	PLUNGER PRESSURE REGULAT	L	4700647	11	585900
C	4700687		B	DIAPHRAGM WELDMENT PRESS	L	4700647	11	586000
C	4700688		A	DIAPHRAGM PRESSURE REG	L	4700687	12	586100
C	4700689		A	PROBE PRESSURE REGULATOR	L	4700687	12	586200
C	4700753			DIAPHRAGM BACKUP	L	4700687	12	586210
C	4700703			TUBE INLET	L	4700640	9	586300
C	4700739	CD		FILTER	L	4700640	9	586400
C	4700748			RING RETAINER PRESSURE	L	4700640	9	586410
D	4700749			CAGE-RETAINER FILTER REG	L	4700640	9	586420
D	4700750			FILTER ELEMENT PRESS REG	L	4700640	9	586430
C	4700751			PLUG PRESSURE REGULATOR	L	4700640	9	586440
C	4700752			SCREW RETAINER PRESSURE	L	4700640	9	586450
J	4700698		B	VALVE NITROGEN ASSY	L	4700654	8	586500
C	4700702		A	TUBE INLET	L	4700654	8	586600
C	4700735		A	WASHER FLAT	L	4700654	8	586700

JPL 1357 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 181 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	4700740			SHIM NITROGEN VALVE	L	4700602	6	586800
B	4700741			SHIM PRESSURE REG	L	4700602	6	586900
C	4700744	CD	B	SPRING BELLVILLE	L	4700602	6	587000
B	4700747			SCREW NITROGEN MANF	L	4700602	6	587100
J	4700607		B	PROPELLANT TANK ASSY	L	4700601	5	587200
D	90273			WASHER COUNTERSUNK	L	4700607	6	587300
D	90342			SEAL METALLIC	L	4700607	6	587400
A	90346			SCREW INTERNAL	L	4700607	6	587500
A	90449			TREAD LUBRICANT	L	4700607	6	587600
D	90568			O RING & GASKET STDS	L	4700607	6	587700
J	4700608			TANK SHELL PROPELLANT	L	4700607	6	587800
J	4700609		B	MANIFOLD ASSY PROPELLANT	L	4700607	6	587900
A	90449			TREAD LUBRICANT	L	4700609	7	588000
A	90568			O RING & GASKET STDS	L	4700609	7	588100
C	3157712		B	BAFFLE BLADDER	L	4700609	7	588200
C	3157713		P	MAGI BLADDER SUPPORT	L	4700609	7	588300
J	4700610			BLADDER PROP TANK	L	4700609	7	588400
C	4700611		A	CLAMP BLADDER	L	4700609	7	588500
J	4700612		A	BODY PROP MANIFOLD	L	4700609	7	588600
A	90128			SERRATION STANDARD	L	4700612	8	588700
D	4700613	CD		XDUCER PRESS PROP 10PTI	L	4700609	7	588800
D	4700615			CAP FILL VALVE PIPS	L	4700609	7	588900
C	4700616		B	SCREW VALVE ASSY	L	4700609	7	589000
D	4700617		B	SCREW	L	4700616	8	589100
D	4700704		B	PROPELLANT VALVE ASSY	L	4700601	5	589200
C	4700623			FLANGE INLET PIPS	L	4700704	6	589300
J	4700695		D	PROPELLANT VALVE ASSY	L	4700704	6	589400
A	90128			SERRATION STANDARD	L	4700695	7	589500
A	90399			PASSIVATION SS	L	4700695	7	589600
C	4700754			RAM NORMALLY CLOSED	L	4700695	8	589620
D	4700705		A	TUBE PROP VALVE INLET	L	4700704	6	589700
J	4700734			SPIDER BRAZEMENT PIPS	L	4700601	5	589800
D	4700737			SPIDER PROPELLANT	L	4700734	6	589900
C	4700738			STUD SPIDER PORP	L	4700734	6	590000
C	4700744	CD	B	SPRING BELLVILLE	L	4700601	5	590100
B	4700745			WASHER FLAT	L	4700601	5	590200
C	4700746			SHIM LAMINATED PROP VALV	L	4700601	5	590300
D	4700682			PROPULSION SYSTEM SCHEM	L	4700600	4	590400
D	4700691		D	ACTUATOR ASSY	L	4700600	4	590500
	DS 82			SCREW-INTERNAL WRENCHING	L	4700691	5	590510

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 182 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	90273			WASHER COUNTERSUNK	L	4700691	5	590600
B	3157821		C	INSULATOR SHEET	L	4700691	5	590700
D	4700193		B	RING SERVO MOUNT	L	4700691	5	590800
C	4700630		A	ACTUATOR JET VANE ASSY	L	4700691	5	590900
B	3157823		C	SET SCREW	L	4700630	6	591000
D	4700694			VANE	L	4700630	6	591100
D	4700692	CD		ACTUATOR JET VANE	L	4700630	6	591200
A	90302			SURFACE TREATMENT	L	4700692	7	591300
D	C701539001		A	ACTUATOR VANE	V	C4700692	7	591400
C	C161539001		A	ENVELOP DWG ACTUATR VANE	V	C701539001	8	591500
A	C181539001		A	ASSY INSTRUCTIONS ACTUAT	V	C701539001	8	591600
D	C701538001		A	ACTUATOR JET VANE	V	C701539001	8	591700
A	KI-M-2249		A	KEARFOTT INSTRUCTIONS	V	C701538001	9	591800
A	132880		A	SILICONE FLUID	V	C701538001	9	591900
B	C101110000		G	BRAID TEXTILE	V	701538001	9	592000
A	C100990071		B	WIRE LOCK	V	C701538001	9	592100
B	C101030000		H	SOLDER SOFT	V	701538001	9	592200
A	C101040000		C	FLUX-SOLDERING	V	C701538001	9	592300
A	C101050001		G	ADHESIVE	V	C701538001	9	592400
B	C101060190		A	EPOXY CASTING RESIN	V	701538001	9	592500
C	C101100000		A	INSULATION SLEEVING EL	V	C701538001	9	592600
B	C101120000		A	INK MARKING	V	701538001	9	592700
C	C101140009		A	LUBRICATING OIL	V	C701538001	9	592800
A	C101270000		A	NITROGEN	V	C701538001	9	592900
A	C101270001		C	HELIUM-TECHNICAL	V	C701538001	9	593000
B	C101290200		A	SEALING COMPOUND	V	C701538001	9	593100
B	C101614000		B	WIRE EL HOOKUP	V	701538001	9	593200
C	C161538001		A	ENVELOPE DWG ACTUATOR	V	C701538001	9	593300
A	C171538001		A	PERFORMANCE SPECIFICATN	V	C701538001	9	593400
A	C180000025		B	EMBRITTLEMENT TEST	V	C701538001	9	593500
A	C180000150		B	GENERAL SPECIFICATION	V	C701538001	9	593700
A	C180000181		A	FLUIDIZED BED COATING	V	C701538001	9	593800
A	C181538001		A	ASSY INSTRUCTIONS ACTUAT	V	C701538001	9	593900
A	C190000001		J	SPECIFICATION MACHINING	V	C701538001	9	594000
A	C190000010		H	WIR GENERAL SPECIFICATN	V	C701538001	9	594100
A	C190000101		G	GENERAL SPEC LAMINATIONS	V	C701538001	9	594200
A	C190000103		D	ASSY OF LAMINATIONS	V	C701538001	9	594300
A	C190000120		G	PROCESS SPECIFICATION	V	C701538001	9	594400
C	C200032966		A	STATOR & HOUSING & ROTOR	V	C701538001	9	594500

JPL 1867 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 183 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPP COL	SEQUENCE NUMBER
A	C200032966	LM		STATOR & HOUSING & ROTOR	V	C200032966	10	594600
C	C305007017		A	ADAPTER BEARING	V	C200032966	10	594700
D	C314007049		A	HOUSING ACTUATR JET VANE	V	C200032966	10	594800
C	C550030148		D	STATOR & HOUSING ASSY	V	C200032966	10	594900
B	C101050041		A	ADHESIVE EPOXY RESIN	V	550030148	11	595000
B	C101250014		B	INSULATION VARNISH EL	V	550030148	11	595100
B	C308022014		E	SPACER SLEEVE	V	550030148	11	595200
C	C550070288		C	STATOR	V	C550030148	11	595300
C	C101005000		E	WIRE MAGNET ELECTRICAL	V	C550070288	12	595400
C	C101080071		A	INSULATION CLOTH ELECT	V	C550070288	12	595500
C	C101107200		C	INSULATION SLEEVING EL	V	C550070288	12	595600
C	C101710000		C	WIRE ELECT HOOKUP TYPE E	V	550070288	12	595700
B	C375022042		B	SLEEVE STATOR	V	C550070288	12	595800
B	C552052159		D	STACK ASSY LAMINATION	V	C550070288	12	595900
B	211015		F	LAMINATION	V	552052159	14	596000
C	C551070566		D	ROTOR	V	C200032966	10	596100
C	C101060058		B	INSULATING COMPOUND EL	V	C551070566	11	596200
B	C308022013		B	SPACER SLEEVE	V	551070566	11	596300
B	C319002129		C	PIN STRAIGHT HEADLESS	V	C551070566	11	596400
D	C340010137		D	SHAFT	V	C551070566	11	596500
B	C557002114		B	MAGNET	V	C551070566	11	596600
C	C200032966	-0	A	ENVELOPE DWG STATOR	V	C701538001	9	596700
C	C311009217		A	BEARING BALL ANNULAR	V	C701538001	9	596800
C	C311009218		A	BEARING BALL ANNULAR	V	C701538001	9	596900
A	C312009026		L	WASHER-FLAT SHIM	V	C701538001	9	597000
B	C312137001		A	WASHER SPRING TENSION	V	C701538001	9	597100
C	C320004409		C	SCREW MACHINE	V	C701538001	9	597200
B	C320007014		B	SCREW SELF LOCKING	V	C701538001	9	597300
B	C320007017		A	SCREW SEAL	V	C701538001	9	597400
C	C320009000		B	SCREW FILLISTER HD FLAT	V	C701538001	9	597500
C	C324007002		A	CAP ACTUATOR	V	C701538001	9	597600
C	C356019540		E	PACKING PREFORMED	V	C701538001	9	597700
C	C360049001		A	DATA-IDENTIFICATION	V	C701538001	9	597800
D	C520010993		A	CONNECTOR RECEPTACLE EL	V	C701538001	9	597900
B	C543007387		B	SCHEM ACTUATOR JET VANE	V	C701538001	9	598000
A	C543050781			ACTUATOR JET VANE	V	C701538001	9	598100
D	C603000526		A	RESISTOR VARIABLE	V	C701538001	9	598200
B	C701538001	LM		ACTUATOR JET VANE	V	701538001	9	598300
A	C701538001			INSPECTION PROCEDURE	V	C701538001	9	598400
B	701539001	IL		KEARFOTT ACTUATOR VANE	L	701539001	8	598500

JPL 1867 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 184 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OPP COL	SEQUENCE NUMBER
A	C101210000		B	WIRE STEEL HIGH CARBON	V	709798002	8	598800
C	C169798002		A	ENVELOPE DWG ACTUATOR	V	709798002	8	598900
A	CL179798002			PERFORMANCE SPEC	V	709798002	8	599000
A	C190000123			FUSING OF TIN PLATED	V	709798002	8	599100
C	C303009000		B	BAND SEALING	V	709798002	8	599200
C	C305007012		B	ADAPTER BEARING	V	709798002	8	599300
D	C314007022		B	HOUSING ACTUATOR JET	V	709798002	8	599400
B	C324007001		B	CAP ACTUATOR	V	709798002	8	599500
B	C543007367			SCHEM ACTUATOR JET VANE	V	709798002	8	599600
B	4700691	IL	A	ACTUATOR ASSEMBLY	L	4700691	5	599910
J	4700701		B	DRAWING FLOW CHART	L	4700600	4	600000
J	4700756			BLOCK DIAG EXPLOSIVELY	L	4700701	5	600010
J	4900587			CABLE INSTALLATION	L	4700600	4	600100
	DS 82			SCREW INTERNAL WRENCHING	L	4900587	5	600110
	DS 101			WASHER E GOLD PLATED	L	4900587	5	600115
D	4600576		A	SURFACE TEMP TRANSDUCER	L	4900587	5	600200
B	4900574			9W11 WIRING HARNESS	L	4900587	5	600300
B	4900575		A	9W10 WIRING HARNESS	L	4900587	5	600400
J	4900548		B	S/C CABLING MASTER DIAG	L	4101300	2	600500
J	4900551			PYRONETWORK INSTL	L	4101300	2	600600
J	4700697		C	SCUTB DUAL BRIDGE WIRE	L	4900551	3	600700
C	8700113			GUARD SCUTB	L	4700697	4	600800
D	4901108		B	SEPARATION INITIATED TIM	L	4900551	3	600900
	DS 84			SCREW HI-TORQUE PANHEAD	L	4901108	4	601000
	DS 88			SCREW HI-TORQUE CSK HEAD	L	4901108	4	601100
A	90346			SCREW INTERNAL	L	4901108	4	601200
D	90568			O RING & GASKET STDS	L	4901108	4	601300
D	4901083		A	CYLINDER	L	4901108	4	601400
C	4901085		A	HEAD FLANGE	L	4901108	4	601500
B	4901087			COMPENSATOR	L	4901108	4	601600
B	4901088			COMPENSATOR CAGE	L	4901108	4	601700
B	4901104			LATCH PIN	L	4901108	4	601800
B	4901106			SPRING	L	4901108	4	601900
D	4901109		A	BULKHEAD	L	4901108	4	602000
A	90302			SURFACE TREATMENT	L	4901109	5	602100
D	4901110		A	CASE	L	4901108	4	602200
A	90302			SURFACE TREATMENT	L	4901110	5	602300
D	4901142			SWITCH BRACKET ASSY	L	4901108	4	602400
	DS 84			SCREW HI TORQUE PANHEAD	L	4901142	5	602500
	DS 89			SCREW HI TORQUE CSK HEAD	L	4901142	5	602600

JPL 1867 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 185 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE – GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	90312			STUD LOCK FEMALE	L	4901142	5	602700
D	4901111		A	SWITCH BRACKET SUBASSY	L	4901142	5	602800
B	4901112		A	SWITCH ACTUATOR LEAF	L	4901111	6	602900
B	4901114			RETAINER	L	4901111	6	603000
C	4901141			CB SUBASSY	L	4901142	5	603100
C	4901140			TERMINAL BOARD	L	4901141	6	603200
B	4901156		A	FILLER CAP	L	4901108	4	603300
C	4901121		A	PYROTECHNIC ARM SW BASI	L	4900551	3	603400
B	90312			STUD LOCK FEMALE	L	4901121	4	603500
C	90314			CONNECTOR INSTL DEM-B	L	4901121	4	603600
D	4901116			HOUSING ARMING SWITCH	L	4901121	4	603700
A	90302			SURFACE TREATMENT	L	4901116	5	603800
C	4901117			COVER HOUSING	L	4901121	4	603900
A	90302			SURFACE TREATMENT	L	4901117	5	604000
C	4901118			SPRING MICRO SWITCH	L	4901121	4	604100
B	4901119			PIN SPRING	L	4901121	4	604200
B	4901120			STUD MICRO SWITCH	L	4901121	4	604300
C	4901122		A	WIRING ASSY PYRO ARM SW	L	4901121	4	604400
D	4901123	CD	A	PIN PULLER ASSY	L	4900551	3	604500
D	4901124		C	BODY ASSY CTG ACTUATED	L	4901123	4	604600
D	4901125	CD	B	BODY	L	4901124	5	604700
C	4901126	CD	A	PISTON ASSY	L	4901124	5	604800
C	4901127	CD		PISTON CARTRIDGE ACTUATD	L	4901126	6	604900
D	4901134		C	SQUIB ASSY 1/2 AMP	L	4901123	4	605000
C	4901128	CD		CONTACT CARTRIDGE ACTUAT	L	4901126	6	605100
C	4901129	CD		CLP CARTRIDGE ACTUATED	L	4901126	6	605200
J	4901130		C	MCN CONN ASSY CARTRIDGE	L	4901124	5	605300
B	4901131	CD		SHEAR PIN	L	4901124	5	605400
B	4901132	CD		RETAINING WASHER	L	4901124	5	605500
B	4901145		B	RING BACK-UP	L	4901124	5	605600
D	4901134	CD	C	SQUIB ASSY 1/2 AMP	L	4900551	3	605700
D	90568			O RING & GASKET STDS	L	4901134	4	605800
C	4901138	CD	B	GUARD-SQUIB OUTPUT	L	4901134	4	605900
								605990
								605991
								605992
								605993
J	4101309		E	INTERFACE MARINER C	L		1	606000
J	4190502		C	CONFIGURATION	L		1	606100
C	4901044		B	TYPICAL SUBASSY	L		1	606200

JPL 1387 JUN 65

JET PROPULSION LABORATORY

CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 186 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE – GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
								606990
								606991
								606992
								606993
B	120401		G	INTERFACE CKT DATA INDEX	IO		1	607000
B	120402			24DCCPS CRUISE PWR DISTR	IO	120401	2	607005
B	120466		C	RF POWER UP	IO	120401	2	607010
B	120467		A	A/C STC UMBILICAL CKTS	IO	120401	2	607012
B	120484		C	RETURN-SIDE TREE	IO	120401	2	607020
B	120407		B	24DO CPS C/P DIST-CR SCI	IO	120401	2	607040
B	120423			24DCCPS P/DIST-ENCOUNTER	IO	120401	2	607050
B	120454			24DO CPS MAN&DC PWR DIST	IO	120401	2	607060
B	120455			40D CPS POWER DISTR	IO	120401	2	607070
B	120492		C	TLM TEMP TRANSDUCERS	IO	120401	2	607080
B	120493			TLM FUNCTIONS	IO	120401	2	607090
B	120483		B	A/C GAS VALVES&SCL VANES	IO	120401	2	607100
B	120485			PYRO ARM SW&SEP INIT TIN	IO	120401	2	607110
B	120486		E	SEPARATION CONNECTOR	IO	120401	2	607120
B	120494			SCAN PLATFM PWR INTERLOK	IO	120401	2	607130
B	120497		A	TV CAMERA HEAD	IO	120401	2	607140
B	120487		C	PWR UMBILICAL FUNCTIONS	IO	120401	2	607150
B	120495		A	SCAN SUBSYS UMBIL FUNCT	IO	120401	2	607160
B	120496			DAS UMBILICAL FUNCTIONS	IO	120401	2	607170
B	120403		E	RADIO-COMMAND	IO	120401	2	607180
B	120404		C	RADIO-POWER	IO	120401	2	607190
B	120405		A	RADIO-CCES	IO	120401	2	607200
B	120406		E	RADIO-DATA ENCODER	IO	120401	2	607210
B	120481			ATTITUDE CONTROL	IO	120401	2	607220
B	120458		C	RADIO-RADIO OSE	IO	120401	2	607230
B	120408		C	COMMAND-POWER	IO	120401	2	607240
B	120407		C	COMMAND-CCES	IO	120401	2	607250
B	120410		B	COMMAND-DATA ENCODER	IO	120401	2	607260
B	120411		C	COMMAND-ATTITUDE CONTROL	IO	120401	2	607270
B	120412		C	COMMAND-PYROTECHNIC	IO	120401	2	607280
B	120413		B	COMMAND-DATA AUTOMATION	IO	120401	2	607290
B	120459		B	COMMAND-COMMAND OSE	IO	120401	2	607300
B	120456			COMMAND-TAPE RECORDER	IO	120401	2	607310
B	120415			POWER-POWER	IO	120401	2	607320
B	120414		C	POWER-CCES	IO	120401	2	607330
B	120416		D	POWER-DATA ENCODER	IO	120401	2	607340

JPL 1387 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 187 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE -- GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	120417		B	POWER-ATTITUDE CONTROL	10	120401	2	607350
B	120418		A	POWER-PYROTECHNIC	10	120401	2	607360
B	120419		A	POWER-S/C CABLING	10	120401	2	607370
B	120420		B	POWER-TAPE RECORDER	10	120401	2	607380
B	120421		A	POWER-DAS	10	120401	2	607390
B	120422		A	PWR-COSMIC RAY TELESCOPE	10	120401	2	607400
B	120424		A	PWR-COSMIC DUST DETECTOR	10	120401	2	607410
B	120425		A	PWR-TRAPPED RAD DETECTOR	10	120401	2	607420
B	120426		A	POWER-ION CHAMBER	10	120401	2	607430
B	120427		A	POWER-SCAN SUBSYSTEM	10	120401	2	607440
B	120428		A	POWER-PLASMA PROBE	10	120401	2	607450
B	120429		A	POWER-HELIUM MAGNETOMETR	10	120401	2	607460
B	120430		A	POWER-UV PHOTOMETERS	10	120401	2	607470
B	120431		A	POWER-TV SUBSYSTEM	10	120401	2	607480
B	120460		B	POWER POWER OSE	10	120401	2	607490
B	120476		E	POWER-STC J-BOX	10	120401	2	607500
B	120433		C	CC&S DATA ENCODER	10	120401	2	607510
B	120434		B	CC&S-ATTITUDE CONTROL	10	120401	2	607520
B	120435		A	CC&S-S/C CABLING	10	120401	2	607530
B	120461		F	CC&S-CC&S OSE	10	120401	2	607540
B	120480		E	CC&S-STC J-BOX	10	120401	2	607550
B	120437		D	DATA ENCODER-ATT CONTROL	10	120401	2	607560
B	120438		C	DATA ENCODER-PYROTECHNIC	10	120401	2	607570
B	120479		A	DATA ENCODER-S/C CABLING	10	120401	2	607580
B	120440		A	DATA ENCODER-PROPULSION	10	120401	2	607590
B	120441		E	DATA ENCODER-THERM CONT	10	120401	2	607600
B	120442		D	DATA ENCODER-TAPE RECORD	10	120401	2	607610
B	120443		F	DATA ENCODER-DATA AUTO	10	120401	2	607620
B	120445		B	DATA ENC TRAP RAD DETECT	10	120401	2	607630
B	120474		A	DATA ENCODER-ION CHAMBER	10	120401	2	607640
B	120444			DATA ENCODER-SCAN SUBSYS	10	120401	2	607650
B	120446		A	DATA ENC HELIUM MAGNET	10	120401	2	607660
B	120447		A	ENCODER TV	10	120401	2	607665
B	120475		B	DATA ENC UV PHOTOMETERS	10	120401	2	607670
B	124477		A	DATA ENCODER TV SUBSYS	10	120401	2	607680
B	120462			DATA ENC-DATA ENC OSE	10	120401	2	607690
B	120439		B	DATA ENC-STC J-BOX	10	120401	2	607700
B	120448		B	ATTITUDE	10	120401	2	607710
B	120478		A	A/C-S/C CABLING	10	120401	2	607720
B	120477		F	A/C DAS	10	120401	2	607730

JPL 1367 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET — MARINER C OFFSET — PAGE 188 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE -- GENERATION BREAKDOWN (1 2 3 4 5 6 7 8 9 10 11)	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	120463		A	A/C-A/C OSE	10	120401	2	607740
B	120449		C	A/C-STC J-BOX	10	120401	2	607750
B	120450		A	PYROTECHNIC-PYROTECHNIC	10	120401	2	607760
B	120464		E	PYROTECHNIC-PYROTECH OSE	10	120401	2	607770
B	120451		B	PYROTECHNIC-STC J-BOX	10	120401	2	607780
B	120482		B	PYROTECHNIC-S/C CABLING	10	120401	2	607790
B	120452			S/C CABLING-S/C CABLING	10	120401	2	607800
B	120453			S/C CABLING-TAPE RECORD	10	120401	2	607810
B	120432			S/C CABLING-PLASMA PROBE	10	120401	2	607820
B	120465		A	S/C CABLING-STC J-BOX	10	120401	2	607830
B	120457		D	TAPE RECORDER-DAS	10	120401	2	607840
B	120488		A	TAPE RECORDER STC J-BOX	10	120401	2	607850
B	120473		C	TAPE REC-TAPE REC OSE	10	120401	2	607860
B	125675		B	DAS-SCIENCE OSE	10	120401	2	607870
B	125671			DAS-COSMIC DUST DETECTOR	10	120401	2	607880
B	120489			DAS-TRAPPED RAD DETECTOR	10	120401	2	607890
B	120490			DAS-ION CHAMBER	10	120401	2	607900
B	125672			DAS-SCAN SUBSYS	10	120401	2	607910
B	125673			DAS-UV PHOTOMETERS	10	120401	2	607920
B	125674			DAS-STC J-BOX	10	120401	2	607930
B	125675		B	DAS-SCIENCE OSE	10	120401	2	607940
B	125676			COSMIC RAY TELE--SCI OSE	10	120401	2	607950
B	125677			COSMIC DUST DET-SCI OSE	10	120401	2	607960
B	125678			TRAPPED RAD DET-SCI OSE	10	120401	2	607970
B	125679			ION CHAMBER-SCIENCE OSE	10	120401	2	607980
B	125680			SCAN SUBSYS-SCAN SUBSYS	10	120401	2	607990
B	120491			SCAN SUBSYS-STC J-BOX	10	120401	2	608000
B	125481			SCAN SUBSYS-SCIENCE OSE	10	120401	2	608010
B	125681			SCAN SUBSYS SCIENCE OSE	10	120401	2	608015
B	125682			PLASMA PROBE SCIENCE OSE	10	120401	2	608020
B	125683			HELIUM MAG-HELIUM MAG	10	120401	2	608030
B	125684			HELIUM MAG-SCIENCE OSE	10	120401	2	608040
B	125685		A	UV PHOTOMETERS-UV PHOTO	10	120401	2	608050
B	125686			UV PHOTOMTRS SCIENCE OSE	10	120401	2	608060
B	125687		B	TV SUBSYS TV SUBSYS	10	120401	2	608070
B	125688		A	TV SUBSYSTEM-SCIENCE OSE	10	120401	2	608080
B	125689		D	POWER OSE STC J-BOX	10	120401	2	608090
B	126690		F	CC&S OSE STC J-BOX	10	120401	2	608100
B	125691		A	DATA ENCODER-STC J-BOX	10	120401	2	608110
B	125692		A	A/C OSE STC J-BOX	10	120401	2	608120

JPL 1367 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST, OFFSET

MARINER C OFFSET PAGE 189

DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	DRAWING TITLE — GENERATION BREAKDOWN 1 2 3 4 5 6 7 8 9 10 11	DWG STAT	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	125693			PYRO OSE+STC J+BOX	IO	120401	2	608130
B	125694		A	STC J+BOX OSE	IO	120401	2	608140
B	125695		B	STC J+BOX-SCIENCE OSE	IO	120401	2	608150
								608990
								608991
								608992
								608993
	REORDER NOS.			TECH MANUALS & LISTS			1	609000
	JPL 63-663			FLT COMMAND SUBSYSTEM			2	609100
	JPL 64-401			FINAL REPORT S-BND XPNDR			2	609200
	JPL 64-374			S-BAND BILL OF MATERIALS			2	609300
	JPL 65-56	PL		TRANSPONDER PARTS LIST	V		2	609400
	JPL 65-168			RADIO FINAL REPORT			2	609500
				MISCELLANEOUS DRAWINGS			1	609600
								609700
J	129533			RECEIVER BLK DGM CASE V	L		2	609800
J	129534			RF COMMUNICATION BLK DGM	L		2	609900
				1 2 3 4 5 6 7 8 9 10 11				

JPL 1367 JUN 63

II. *MARINER* MARS 1964 DRAWING LIST: OSE NUMERICAL

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 1 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	REFERENCE NUMBER
				MARINER C FINAL LISTS									
	REORDER NOS.												
	JPL 65-409			FLIGHT OFFSET									
	JPL 65-410			FLIGHT NUMERICAL									
	JPL 65-411			OSE NUMERICAL									
	JPL 65-412			OSE NUMERICAL X DIVISION									

JPL 1006 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 2 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	REFERENCE NUMBER
				DRAWING STATUS SYMBOLS									
				MULTIPLE SOURCE JPL DWGS RELEASED BY SECTION 356 & CONTROLLED BY JPL.		L							
				SINGLE SOURCE JPL DWGS RELEASED BY SECTION 356 AND CONTROLLED BY JPL.		LX							
				MULTIPLE SOURCE DWGS WHICH MEET REQUIREMENTS OF JPL 20030 & REPRODUCIBLE RELEASED BY SECTION 356 WITH VENDOR RETAINING DRAWING CONTROL.		V							
				SINGLE SOURCE DWGS WHICH MEET REQUIREMENTS OF JPL 20030 & REPRODUCIBLE RELEASED BY SECTION 356 WITH VENDOR RETAINING DRAWING CONTROL.		VX							
				DRAWINGS ON FILE AT JPL WITH NO RELEASE CONTROL ASSUMED BY SECTION 356.		IO							
				DRAWINGS FOR WHICH NUMBERS & TITLES ARE KNOWN. NO REPRODUCIBLE ON FILE AT JPL.		O							
		BM		BILL OF MATERIALS									
		CD		CONTROL DRAWING									
		IL		INFORMATION LIST									
		LM		LIST OF MATERIALS									
		PL		COMPONENT PARTS LIST									
		WL		WIRE LIST									

JPL 1006 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 3 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
				LISTINGS ARE FILED									
				ALPHABETICALLY BY VENDOR									
				& NUMERICALLY BY DRAWING									
				NUMBER WITH DRAWING									
				CONTROL SHOWN IN VENDOR									
				CODE COLUMN.									
				VENDOR CODE									
				ASTRODATA					ASD				
				BECKMAN INSTRUMENTS					BIN				
				CORRELATED DATA SYSTEMS					CDS				
				ELECTRO OPTICAL SYSTEMS					EOS				
				HAZELTINE CORPORATION					HC				
				JET PROPULSION LAB					JPL				
				MOTOROLA INC					MOI				
				NORTRONICS					NTS				
				PHILCO CORPORATION					PHIL				
				SPACE ELECTRONICS CORP					SEC				
				SPACE TECHNOLOGY LAB					STL				
				TEXAS INSTRUMENTS					TIN				

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 4 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	17170		A	DIRECT COUPLED AMPLIFIER	33	IO			ASD	MC			OSE
D	17171		D	CHOPPER AMPLIFIER	33	IO			ASD	MC			OSE
C	17180			UNREGULATED POWER SUPPLY	33	IO			ASD	MC			OSE
F	17189		A	POST AMPLIFIER 885-102	33	IO			ASD	MC			OSE
D	17197		A	ISOLATOR ASSY 885-102	33	IO			ASD	MC			OSE
C	01-7004		A	AMPLIFIER W DIAGRAM	33	V	07	64	ASD	MC			OSE
D	07-7000		A	2 PHASE 400 CYCLE POWER	33	V	07	64	ASD	MC			OSE
D	885-1054			FRONT PANEL 885 AMPL	33	IO			ASD	MC			OSE
D	885-8002			BLOCK DGM MODEL 885-102	33	IO			ASD	MC			OSE
A	2301-101	DL		VIDEO TAPE RECORDER	33	V	01	64	ASD	MC	8107-100		OSE
E	2301-101			VIDEO TAPE RECORDER	33	V	01	64	ASD	MC			OSE
D	7182-041		F	PLUG-IN POWER SUPPLY	33	V	01	64	ASD	MC	7182-065		OSE
C	7182-065		A	UNIT ASSY POWER SUPPLY	33	V	01	64	ASD	MC	2301-1028		OSE
D	8105-100			POWER SUPPLY TOP ASSY	33	V	01	64	ASD	MC	2301-101		OSE
D	8107-100			POWER SUPPLY ASSY	33	V	01	64	ASD	MC	2301-101		OSE
D	8107-100			POWER SUPPLY ASSY	33	V	01	64	ASD	MC	2301-101		OSE
E	8205-100		L	POWER SUPPLY	33	V	01	64	ASD	MC	8107-100		OSE
F	8220-101		E	POWER SUPPLY ASSEMBLY	33	V	02	64	ASD	MC			OSE
D	2301-1015		A	JUNCTION BOX ASSY	33	V	01	64	ASD	MC	2301-101		OSE
B	2301-1017			MASTER MATRIX CARD	33	V	01	64	ASD	MC	2301-1015		OSE
D	2301-1018		A	SPECIAL CIRCUITS BD #1	33	V	03	64	ASD	MC			OSE
D	2301-1019		A	SPECIAL CIRCUITS BD #2	33	V	03	64	ASD	MC			OSE
A	2301-1021		A	TB 1 MIL CURRENT SUPPLY	33	V	01	64	ASD	MC	2301-1015		OSE
A	2301-1022			VOLTAGE BLOCK-B1	33	V	01	64	ASD	MC	2301-1015		OSE
A	2301-1022	LM		VOLTAGE BLOCK	33	V	01	64	ASD	MC	2301-1015		OSE
A	2301-1023			VOLTAGE BLOCK-B2	33	V	01	64	ASD	MC	2301-1015		OSE
A	2301-1023	LM		VOLTAGE BLOCK	33	V	01	64	ASD	MC	2301-1015		OSE
A	2301-1025			VOLTAGE BLOCK	33	V	03	64	ASD	MC			OSE
A	2301-1025	LM		VOLTAGE BLOCK	33	V	01	64	ASD	MC	2301-1015		OSE
D	2301-1027			CONVENIENCE OUTLET PANEL	33	V	01	64	ASD	MC	2301-101		OSE
C	2301-1028			CONNECTOR PANEL ASSY	33	V	01	64	ASD	MC	2301-101		OSE
B	2301-1029			TERMINAL BOARD ASSY	33	V	01	64	ASD	MC	2301-1028		OSE
D	2301-1030		A	SPECIAL CIRCUITS #3	33	V	07	64	ASD	MC	2301-1028		OSE
D	2301-1031		A	CARD MODULE ASSY	33	V	01	64	ASD	MC	2301-1028		OSE
B	2301-1032			MASTER MATRIX CARD	33	V	01	64	ASD	MC	2301-1028		OSE
D	2301-1037		A	CONTROL PANEL ASSY	33	V	01	64	ASD	MC	2301-101		OSE
C	2301-1039			ELAPSED TIME METER PANEL	33	V	01	64	ASD	MC	2301-101		OSE
F	2301-1040			CONTROL MODULE ASSY	33	V	01	64	ASD	MC	2301-101		OSE
A	2301-1041			METER NOISE FILTER	33	V	01	64	ASD	MC	2301-101		OSE
A	2301-1041	LM		METER NOISE FILTER	33	V	01	64	ASD	MC	2301-101		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 5 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
C	2301-1045			CONNECTOR PANEL ASSY	33	V	01	64	ASD	MC	2301-1045		OSE
C	2301-7001			1 MIL CURRENT SOURCE	33	V	01	64	ASD	MC	2301-101		OSE
D	2301-7002			WIRING DGM CONTROL PANEL	33	V	01	64	ASD	MC	2301-101		OSE
D	2301-7002		A	WIRING DGM CONTROL PANEL	33	V	01	64	ASD	MC	2301-1045		OSE
D	2301-7003			THUMBWHEEL SW WIRING DGM	33	V	01	64	ASD	MC	2301-101		OSE
C	2301-7004			AMPLIFIER WIRING DGM	33	V	01	64	ASD	MC	2301-101		OSE
C	2301-7005			TIME METER PANEL WIR DGM	33	V	01	64	ASD	MC	2301-101		OSE
A	2301-7500	WL		71120 TAPE REC CONSOLE	33	V	03	64	ASD	MC			OSE
D	2301-7501		A	AC WIR VIDEO TAPE RECORD	33	V	01	64	ASD	MC			OSE
D	2301-7511			GALVO CONNECTOR PANEL	33	V	01	64	ASD	MC	2301-7501		OSE
D	2301-8003			VIDEO TAPE RECORDER	33	V	01	64	ASD	MC			OSE
D	2301-8004			LOGIC 1 TIME BASE COUNTR	33	V	01	64	ASD	MC			OSE
D	2301-8004		A	LOGIC 1 TIME BASE COUNTR	33	V	01	64	ASD	MC			OSE
D	2301-8005		A	LOGIC #2 OUT LOCK DET	33	V	07	64	ASD	MC	2301-101		OSE
D	2301-8006			LOGIC #3	33	V	01	64	ASD	MC			OSE
E	2608-1002		F	CARD MODULE ASSY	33	V	02	64	ASD	MC	8600260		OSE
F	2608-1003		E	CARD MODULE ASSY	33	V	02	64	ASD	MC	8600260		OSE
C	2608-1027		B	SUPPORT-XMFR	33	V	03	64	ASD	MC			OSE
D	8100-1000		A	CHASSIS POWER SUPPLY	33	V	01	64	ASD	MC			OSE
F	8100-1004		E	POWER SUPPLY ASSEMBLY	33	V	02	64	ASD	MC			OSE
F	8100-7000		B	POWER SUPPLY	33	V	02	64	ASD	MC			OSE
D	8105-1000			FRONT PANEL FABRICATION	33	V	01	64	ASD	MC	8105-100		OSE
C	8105-1002			HEAT SINK MOD	33	V	01	64	ASD	MC	8105-100		OSE
D	8105-1003			CHASSIS POWER SUPPLY	33	V	01	64	ASD	MC	2301-1015		OSE
C	8105-1004			TERMINAL BOARD ASSY	33	V	01	64	ASD	MC	8105-100		OSE
A	8105-1005			NAMEPLATE	33	V	01	64	ASD	MC	8105-100		OSE
D	8105-7000		A	POWER SUPPLY SCHEM	33	V	01	64	ASD	MC	8105-1004		OSE
D	8105-7000		B	POWER SUPPLY SCHEMATIC	33	V	01	64	ASD	MC	8105-100		OSE
C	8107-1002			TB POWER SUPPLY	33	V	01	64	ASD	MC	8107-100		OSE
C	8107-1003	-2		TERMINAL BOARD #2 ASSY	33	V	01	64	ASD	MC	8107-100		OSE
C	8107-1003	-1		TERMINAL BOARD #1	33	V	01	64	ASD	MC	8107-100		OSE
A	8107-1004			NAMEPLATE	33	V	01	64	ASD	MC	8107-100		OSE
A	8107-1004	LM		NAMEPLATE	33	V	01	64	ASD	MC	8107-100		OSE
D	8107-7000			2 PHASE 400CYCLE PWR SUP	33	V	01	64	ASD	MC	8105-100		OSE
C	8205-1001		J	PC BOARD ASSY PWR SUPPLY	33	V	09	64	ASD	MC			OSE
C	8205-1012		A	BRACKET ASSY HEAT SINK	33	V	01	64	ASD	MC	2301-1045		OSE
C	8205-1013		A	BRACKET ASSY HEAT SINK	33	V	01	64	ASD	MC	8205-100		OSE
F	8205-7000		G	POWER SUPPLY SCHEMATIC	33	V	01	64	ASD	MC	8205-100		OSE
D	8220-7001		E	PWR SUP TIME CODE XLATOR	33	V	02	64	ASD	MC			OSE
F	11201		F	VOLTAGE REGULATOR	33	V	02	64	ASD	MC			OSE

JPL 1506 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 6 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
D	11339		H	ZERO AXIS DETECTOR	33	V	02	64	ASD	MC	8600260		OSE
F	11411		H	1-2-4-8 DCU CONVERTER	33	V	01	64	ASD	MC	8107-100		OSE
F	11411		H	1 2 4 8 DCU & 10 LINE	33	V	02	64	ASD	MC	8600260		OSE
D	11454		H	VOLTAGE REGULATOR	33	V	01	64	ASD	MC	8107-100		OSE
D	11747			THRESHOLD DETECTORS	33	V	02	64	ASD	MC	8600260		OSE
D	11811		C	DC FILTER CARD	33	V	02	64	ASD	MC			OSE
D	12000		J	FLIP-FLOP COMMON CLOCK	33	V	01	64	ASD	MC	8107-100		OSE
D	12000		J	FLIP FLOP 10 KC	33	V	02	64	ASD	MC			OSE
D	12001		G	FLIP-FLOP SEPARATE CLOCK	33	V	01	64	ASD	MC	8107-100		OSE
D	12001		G	FLIP FLOP 10 KC	33	V	02	64	ASD	MC			OSE
D	12002		F	FLIP FLOP 10 KC	33	V	02	64	ASD	MC			OSE
D	12003		F	DCU 1 2 4 8 10 KC	33	V	02	64	ASD	MC			OSE
D	12004		G	6 MA INVERTER	33	V	01	64	ASD	MC	8107-100		OSE
D	12006		K	LAMP DRIVER 28V 80MA	33	V	02	64	ASD	MC	8600260		OSE
D	12007		G	60 MA NON INVERTER	33	V	01	64	ASD	MC	8107-100		OSE
D	12007		G	60 MA NON INVERTER	33	V	02	64	ASD	MC			OSE
D	12011		H	RESET DRIVER	33	V	01	64	ASD	MC	8107-100		OSE
D	12011		H	RESET DRIVER	33	V	02	64	ASD	MC			OSE
D	12012		G	RELAY CARD	33	V	01	64	ASD	MC	8107-100		OSE
D	12013		C	2 WAY GATE	33	V	01	64	ASD	MC	8107-100		OSE
D	12013		C	2 WAY GATE	33	V	02	64	ASD	MC			OSE
D	12014		D	3 WAY GATE	33	V	01	64	ASD	MC	8107-100		OSE
D	12014		D	3 WAY GATE	33	V	02	64	ASD	MC			OSE
D	12015		B	5 WAY GATE	33	V	01	64	ASD	MC	8107-100		OSE
D	12015		B	5 WAY GATE	33	V	02	64	ASD	MC			OSE
D	12017		D	9 WAY GATE	33	V	02	64	ASD	MC			OSE
D	12020		J	FLIP-FLOP SEPARATE CLOCK	33	V	01	64	ASD	MC	8107-100		OSE
D	12022		J	TIME DELAY GENERATOR	33	V	01	64	ASD	MC	8107-100		OSE
D	12022		J	TIME DELAY GENERATOR	33	V	02	64	ASD	MC			OSE
D	12026		J	70 MA INVERTER	33	V	01	64	ASD	MC	8107-100		OSE
D	12026		J	70 MA INVERTER	33	V	02	64	ASD	MC			OSE
D	12029		D	D.A.C. FLIP FLOP	33	V	02	64	ASD	MC			OSE
D	12030		G	8 BIT SHIFT REG 10 KC	33	V	02	64	ASD	MC			OSE
D	12043		D	8 BIT SHIFT REGISTER	33	V	01	64	ASD	MC	8107-100		OSE
D	12046		D	ONE WAY GATE	33	V	01	64	ASD	MC	8107-100		OSE
D	12046		D	ONE WAY GATE	33	V	02	64	ASD	MC			OSE
D	12050		G	DIODE BRIDGE MULTIPLEXER	33	V	02	64	ASD	MC	8600260		OSE
D	12050		G	DIODE BRIDGE MULTIPLEXER	33	V	02	64	ASD	MC			OSE
D	12074		D	DELAY FLOP	33	V	02	64	ASD	MC	8600260		OSE
D	12074		D	DELAY FLOP	33	V	02	64	ASD	MC			OSE

JPL 1506 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 7 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	12076		D	NIXIE DRIVER	33	V	01	64	ASD	MC	8107-100		OSE
D	12076		D	NIXIE DRIVER	33	V	02	64	ASD	MC			OSE
D	12078		A	4 5 OR 6 BIT COUNTER	33	V	01	64	ASD	MC	8107-100		OSE
D	12078		A	4 5 OR 6 BIT COUNTER	33	V	02	64	ASD	MC	8600260		OSE
D	12081		C	0-9 0-3 0-2 &- DECODED	33	V	02	64	ASD	MC	8600260		OSE
D	12082		B	0-9 0-9 DECODED NIXIE DR	33	V	02	64	ASD	MC	8600260		OSE
D	15120		B	5 BIT BINARY TO BCD HRS	33	V	02	64	ASD	MC	8600260		OSE
D	15211		B	CLOCK PULSER 100KC	33	V	02	64	ASD	MC	8600260		OSE
D	15213		E	REGULATOR	33	V	02	64	ASD	MC			OSE
D	15228		A	COMPARISON LOGIC	33	V	02	64	ASD	MC	8600260		OSE
D	15296		A	RELAY CARD	33	V	01	64	ASD	MC	8107-1003		OSE
D	15412		B	OSCILLATOR DIVIDER	33	V	01	64	ASD	MC	8107-100		OSE
D	15413		B	OSCILLATOR DIVIDER	33	V	01	64	ASD	MC	8107-100		OSE
D	15413		B	OSCILLATOR DIVIDER	33	V	02	64	ASD	MC	8600260		OSE
D	15504			SINE WAVE SHAPER	33	V	02	64	ASD	MC	8600260		OSE
D	15505			SINE WAVE SHAPER	33	V	02	64	ASD	MC	8600260		OSE
F	15506			PHASE SHIFT KEYER	33	V	02	64	ASD	MC			OSE
D	15509		C	DIGITAL ISOLATOR	33	V	02	64	ASD	MC	8600260		OSE
D	15538			VCO & CONTROL	33	V	02	64	ASD	MC	8600260		OSE
D	15565			CLOCK PULSER	33	V	01	64	ASD	MC	8107-100		OSE
D	15595			POSITIVE DIGITAL ISOLATR	33	V	02	64	ASD	MC			OSE
D	15607			HI VOLTAGE PWR INVERTER	33	V	02	64	ASD	MC			OSE
D	16049		E	POST AMPLIFIER	33	V	02	64	ASD	MC	8600260		OSE
A	4064		B	STUD-PC CONNECTOR	33	V	11	64	BIN	MC			OSE
A	62405			DIGITAL DOMAIN	33	V	11	64	BIN	MC			OSE
A	62449		F	BUSHING 210 DOOR	33	V	11	64	BIN	MC			OSE
C	510511			PANEL DELAY LINE	33	V	11	64	BIN	MC	511860		OSE
B	511056		B	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC			OSE
C	511861			PANEL BLANK 8.75 HIGH	33	V	11	64	BIN	MC	511860		OSE
J	512200		B	JUNCTION BOX	33	V	11	64	BIN	MC	512198		OSE
J	512412		A	PANEL 19 BLANK	33	V	11	64	BIN	MC			OSE
C	513291			COVER REMOTE DISPLAY	33	V	11	64	BIN	MC	513290		OSE
C	513879		A	INPUT COUPLING ASSY	33	V	11	64	BIN	MC	511853		OSE
B	514013		A	CABLE ASSY	33	V	11	64	BIN	MC	511853		OSE
B	514013		A	CABLE ASSY	33	V	11	64	BIN	MC	509813		OSE
B	514028			CABLE ASSY	33	V	11	64	BIN	MC			OSE

JPL 1366 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 8 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
B	514031		A	CABLE ASSY	33	V	11	64	BIN	MC	511853		OSE
B	514031		A	CABLE ASSY	33	V	11	64	BIN	MC	509813		OSE
B	514034		A	CABLE ASSY	33	V	11	64	BIN	MC	511853		OSE
B	514034		A	CABLE ASSY	33	V	11	64	BIN	MC	509813		OSE
C	851317			PANEL REPFORATED	33	V	11	64	BIN	MC	513291		OSE
A	003-850995		C	PAINT SPECIFICATION	33	V	11	64	BIN	MC			OSE
J	020-511193			SYNC & RATE LOGIC DIAG	33	V	11	64	BIN	MC	511849		OSE
J	020-511193			SYNC & RATE LOGIC DIAG	33	V	11	64	BIN	MC	509720		OSE
J	020-511193			SYNC & RATE LOGIC DIAG	33	V	11	64	BIN	MC	510433		OSE
D	022-509737		A	JPL SYSTEM BLOCK DIAG	33	V	11	64	BIN	MC	511860		OSE
D	022-509737		A	JPL SYSTEM BLOCK DIAG	33	V	11	64	BIN	MC	511853		OSE
D	022-509737		A	JPL SYSTEM BLOCK DIAG	33	V	11	64	BIN	MC	510434		OSE
D	022-509737		A	JPL SYSTEM BLOCK DIAG	33	V	11	64	BIN	MC	510716		OSE
D	022-509737		A	JPL SYSTEM BLOCK DIAG	33	V	11	64	BIN	MC	509813		OSE
J	025-509738			AC-DC DISTRIBUTION	33	V	11	64	BIN	MC	511850		OSE
J	025-509738			AC-DC DISTRIBUTION	33	V	11	64	BIN	MC	509719		OSE
J	025-509738			AC-DC DISTRIBUTION	33	V	11	64	BIN	MC	509716		OSE
J	025-509738			AC-DC DISTRIBUTION	33	V	11	64	BIN	MC	509717		OSE
J	025-509738			AC-DC DISTRIBUTION	33	V	11	64	BIN	MC	509813		OSE
C	025-509739			SIMPLIFIED ANALOG	33	V	11	64	BIN	MC	511850		OSE
C	025-509739			SIMPLIFIED ANALOG	33	V	11	64	BIN	MC	511853		OSE
C	025-509739			SIMPLIFIED ANALOG	33	V	11	64	BIN	MC	511860		OSE
C	025-509739			SIMPLIFIED ANALOG	33	V	11	64	BIN	MC	511849		OSE
C	025-509739			SIMPLIFIED ANALOG	33	V	11	64	BIN	MC	509716		OSE
C	025-509739			SIMPLIFIED ANALOG	33	V	11	64	BIN	MC	509717		OSE
C	025-509739			SIMPLIFIED ANALOG	33	V	11	64	BIN	MC	509813		OSE
A	101-508908		A	SCREW-MODIFICATION	33	V	11	64	BIN	MC			OSE
A	103-508000		A	STUD-P.C. CONNECTOR	33	V	11	64	BIN	MC			OSE
A	103-508129			STUD SWITCH MTG	33	V	11	64	BIN	MC	507595		OSE
A	103-509756			STUD MOUNTING	33	V	11	64	BIN	MC	509722		OSE
A	103-509756			STUD MOUNTING	33	V	11	64	BIN	MC	510032		OSE
A	103-509756			STUD MOUNTING	33	V	11	64	BIN	MC	509981		OSE
B	160-510802			SPACER THREADED	33	V	11	64	BIN	MC	509728		OSE
B	167-510226			SPACER SLIDE MOUNTING	33	V	11	64	BIN	MC	510435		OSE
B	226-509943		A	PIVOT ARM	33	V	11	64	BIN	MC	509982		OSE
B	261-510418		A	SYSTEM NAMEPLATE	33	V	11	64	BIN	MC	511849		OSE
B	261-510418		A	SYSTEM NAMEPLATE	33	V	11	64	BIN	MC	509813		OSE
B	261-510430		A	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	511849		OSE
B	261-510430		A	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	509720		OSE
B	261-510430		A	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	510433		OSE

JPL 1366 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 9 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END ITM	TITLE	REQP. DIV.	SYS STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY CHG.	REFERENCE NUMBER
B	261-510432		A	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	511849		OSE
B	261-510432		A	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	509720		OSE
B	261-510432		A	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	510433		OSE
B	261-511867		B	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	511849		OSE
B	261-511868		B	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	511849		OSE
B	261-511869		B	NAMEPLATE IDENTIFICATION	33	V	11	64	BIN	MC	511849		OSE
D	297-512199		B	COVER	33	V	11	64	BIN	MC	512198		OSE
B	297-512627		B	COVER PLATE	33	V	11	64	BIN	MC	509985		OSE
B	297-512627		B	COVER PLATE	33	V	11	64	BIN	MC	509984		OSE
D	299-502609		B	CARD LOCATOR FRAME ASSY	33	V	11	64	BIN	MC			OSE
C	307-851008		A	SLIDE TYPE #93- 0302	33	V	11	64	BIN	MC			OSE
C	307-851009		A	SLIDE TYPE #93- 0303	33	V	11	64	BIN	MC			OSE
B	313-509732			BRACKET BUMPER	33	V	11	64	BIN	MC	509719		OSE
C	317-509863		A	HINGE PANEL CONTINUOUS	33	V	11	64	BIN	MC	509813		OSE
C	317-511858			HINGE PANEL CONTINUOUS	33	V	11	64	BIN	MC	511854		OSE
B	317-513430		B	HINGE	33	V	11	64	BIN	MC	513290		OSE
A	327-506321			BLOCK INSULATING	33	V	11	64	BIN	MC	855-506301		OSE
C	327-509758			SUPPORT PWR SUPPLY	33	V	11	64	BIN	MC	509813		OSE
A	327-509827			MOUNT BUS BAR	33	V	11	64	BIN	MC	509723		OSE
B	327-509837			MOUNT BUS BAR INSULATING	33	V	11	64	BIN	MC	509723		OSE
C	327-509862		A	DOOR STOP	33	V	11	64	BIN	MC	509813		OSE
B	327-509930			BRACKET THERMOSWITCH MTG	33	V	11	64	BIN	MC	509728		OSE
C	327-510090			GUSSET	33	V	11	64	BIN	MC	510093		OSE
C	327-510119			BRACKET PWR SUPPLY	33	V	11	64	BIN	MC	510032		OSE
B	327-513429			STIFFENER	33	V	11	64	BIN	MC	513290		OSE
J	332-509417		K	DOOR ASSY SOLID	33	V	11	64	BIN	MC	509416		OSE
D	337-509929			SHIELD HEAT	33	V	11	64	BIN	MC	509813		OSE
C	337-510801			SWITCH SHIELD	33	V	11	64	BIN	MC	509728		OSE
C	338-508107		J	HOLDER NAMEPLATE	33	V	11	64	BIN	MC	327-508100		OSE
B	338-510420		C	DOOR STOP	33	V	11	64	BIN	MC			OSE
B	348-508260			PLATE CONNECTOR MTG	33	V	11	64	BIN	MC	510283		OSE
C	348-509726		A	BUS BAR	33	V	11	64	BIN	MC	509814		OSE
B	348-509931			PLATE COMPONENT MTG	33	V	11	64	BIN	MC	509728		OSE
D	348-510063			END PLATE MODULE	33	V	11	64	BIN	MC	510062		OSE
D	348-510064			END PLATE MODULE	33	V	11	64	BIN	MC	510062		OSE
C	348-510731			PLATE TERMINAL STRIP	33	V	11	64	BIN	MC	510032		OSE
J	348-511856		B	END PLATE MODULE	33	V	11	64	BIN	MC	511855		OSE
J	348-511857		A	END PLATE MODULE	33	V	11	64	BIN	MC	511855		OSE
C	349-509740		A	PLATE AIR DIVIDER UPPER	33	V	11	64	BIN	MC	509812		OSE
C	349-509818		A	PLATE AIR DIVIDER	33	V	11	64	BIN	MC	509817		OSE

JPL 1806 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 10 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END ITM	TITLE	REQP. DIV.	SYS STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY CHG.	REFERENCE NUMBER
C	349-509818		A	PLATE AIR DIVIDER	33	V	11	64	BIN	MC	509811		OSE
C	349-510070			PLATE HEAT SINK	33	V	11	64	BIN	MC	510061		OSE
D	349-513288		A	END PLATE LEFT HAND	33	V	11	64	BIN	MC	513290		OSE
D	349-513289		A	END PLATE RIGHT HAND	33	V	11	64	BIN	MC	513290		OSE
C	405-509806		A	PLATE LOWER GUIDE	33	V	11	64	BIN	MC	509811		OSE
C	405-509806		A	PLATE LOWER GUIDE	33	V	11	64	BIN	MC	509817		OSE
C	405-509809		A	PLATE UPPER GUIDE	33	V	11	64	BIN	MC	509812		OSE
C	405-512868		A	PLATE UPPER GUIDE	33	V	11	64	BIN	MC	512870		OSE
C	405-512869		A	PLATE LOWER GUIDE	33	V	11	64	BIN	MC	512871		OSE
C	430-509824			CHASSIS DC POWER	33	V	11	64	BIN	MC	433-509721		OSE
D	430-510092		A	CHASSIS POWER SUPPLY	33	V	11	64	BIN	MC	510093		OSE
J	430-510093		A	CHASSIS ASSEMBLY PWR	33	V	11	64	BIN	MC	510065		OSE
D	433-508641		A	PANEL BLANK	33	V	11	64	BIN	MC			OSE
D	433-510066			PANEL POWER SUPPLY	33	V	11	64	BIN	MC	510093		OSE
J	433-510080		A	PANEL DIGITAL DISPLAY	33	V	11	64	BIN	MC	510061		OSE
D	449-509811			PLATE ASSY GUIDE LOWER	33	V	11	64	BIN	MC	509723		OSE
D	449-509812			PLATE ASSY GUIDE	33	V	11	64	BIN	MC	509723		OSE
D	449-509817		A	PLATE ASSY GUIDE	33	V	11	64	BIN	MC	509723		OSE
D	449-510082			MASK READOUT	33	V	11	64	BIN	MC	510061		OSE
D	449-512871			PLATE ASSY GUIDE LOWER	33	V	11	64	BIN	MC	512641		OSE
D	449-512870			PLATE ASSY GUIDE	33	V	11	64	BIN	MC	512641		OSE
B	687-510015			TERMINAL LUG ASSY	33	V	11	64	BIN	MC	508531		OSE
C	693-510715		A	TERMINAL BD ASSY	33	V	11	64	BIN	MC	509722		OSE
C	767-510435			MODIFICATION DRAWING	33	V	11	64	BIN	MC	511860		OSE
C	767-510435			MODIFICATION DRAWING	33	V	11	64	BIN	MC	510434		OSE
C	767-510435			MODIFICATION DRAWING	33	V	11	64	BIN	MC	509716		OSE
C	855-509814		B	BUS BAR	33	V	11	64	BIN	MC	511855		OSE
C	855-509814		B	BUS BAR	33	V	11	64	BIN	MC	509723		OSE
B	855-510217		C	SYNC DETECTOR .IPPS	33	V	11	64	BIN	MC			OSE
B	864-510227			SPACER	33	V	11	64	BIN	MC	509985		OSE
A	PS 1001			INSTRUCT MANUAL	35	V	04	64	CDS	MC			OSE
B	130002			SCHEM-AC-DC SIG COND	34	V	06	64	CDS	MC	139002		OSE
B	139002			DIAG-SCHM AC COND SUBASY	34	V	06	64	CDS	MC	8901553		OSE
A	151027	LM		SOLAR PNL SIM MAIN CHASS	35	V	04	64	CDS	MC	PS 1001		OSE
J	151102			SCHEM SOLAR PANEL SIM	35	V	04	64	CDS	MC	PS 1001		OSE
C	151106			AUX PWR SUPP REGULATOR	35	V	04	64	CDS	MC	151306		OSE

JPL 1806 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 11 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	151107			REFERENCE PWR SUPPLIES	35	V	04	64	CDS	MC	151307		OSE
C	151108			SCR CONTROL	35	V	04	64	CDS	MC	151308		OSE
C	151109			CURRENT CONT INPUT AMP	35	V	04	64	CDS	MC	151309		OSE
C	151110			MAIN REGULATOR AMPLIFIER	35	V	04	64	CDS	MC	151310		OSE
C	151111			PROTECTIVE CIRCUITS	35	V	04	64	CDS	MC	151311		OSE
C	151113			FUNCTION GENERATOR	35	V	04	64	CDS	MC	151313		OSE
C	151113			FUNCTION GENERATOR	35	V	04	64	CDS	MC	151314		OSE
C	151113			FUNCTION GENERATOR	35	V	04	64	CDS	MC	151315		OSE
C	151116			AUX PWR SUPP RECTIFIER	35	V	04	64	CDS	MC	151316		OSE
J	151306		B	ASSY AUX PWR SUPP REG	35	V	04	64	CDS	MC	PS 1001		OSE
J	151307		B	REFERENCE VOLTAGE SUPP	35	V	04	64	CDS	MC	PS 1001		OSE
J	151308		B	ASSY SCR CONTROL	35	V	04	64	CDS	MC	PS 1001		OSE
J	151309		B	ASSY CURRENT CONT INPUT	35	V	04	64	CDS	MC	PS 1001		OSE
J	151310		B	ASSY MAIN REGULATOR AMPL	35	V	04	64	CDS	MC	PS 1001		OSE
J	151311		B	ASSY PROTECTIVE CIRCUITS	35	V	04	64	CDS	MC	PS 1001		OSE
D	151313		B	ASSY FUNCTION GEN BD A	35	V	04	64	CDS	MC	PS 1001		OSE
E	151314		A	ASSY FUNCT GEN BD B	35	V	04	64	CDS	MC	PS 1001		OSE
D	151315		B	ASSY FUNCT GEN BD C	35	V	04	64	CDS	MC	PS 1001		OSE
J	151316		A	AUX PWR SUPP RECTIFIER	35	V	04	64	CDS	MC	PS 1001		OSE
B	158001		B	DIAG SCHM-AC-DC SIG COND	34	V	06	64	CDS	MC	139002		OSE
D	107401			MODULE #3 ASSY 32A4	33	V	01	64	HC	MC	4801229		OSE
A	107401	LM		MODULE #3 ASSY 32A4	33	V	01	64	HC	MC	107401		OSE
C	484145			COVER	33	V	01	64	HC	MC			OSE
	REORDER NOS.			TECH MANUALS & LISTS									OSE
	63-663			COMMAND TEST CONSOLE					MOI	MC			OSE
B	120402		B	2400CPS CRUISE PWR DISTR	31	IO			JPL	MC			OSE
B	120403		E	RADIO COMMAND	31	IO			JPL	MC			OSE
B	120404		C	RADIO POWER	31	IO			JPL	MC			OSE
B	120405		A	RADIO CC&S	31	IO			JPL	MC			OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 12 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	120406		E	RADIO ENCODER	31	IO			JPL	MC			OSE
B	120408		C	COMMAND POWER	31	IO			JPL	MC			OSE
B	120409		B	COMMAND CC&S	31	IO			JPL	MC			OSE
B	120410		B	COMMAND DATA ENCODER	31	IO			JPL	MC			OSE
B	120411		C	COMMAND A/C	31	IO			JPL	MC			OSE
B	120412		C	COMMAND PYROTECHNIC	31	IO			JPL	MC			OSE
B	120413		B	COMMAND DAS	31	IO			JPL	MC			OSE
B	120414		C	POWER CC&S	31	IO			JPL	MC			OSE
B	120415			POWER	31	IO			JPL	MC			OSE
B	120416		D	POWER ENCODER	31	IO			JPL	MC			OSE
B	120417		B	POWER A/C	31	IO			JPL	MC			OSE
B	120418		A	POWER PYRO	31	IO			JPL	MC			OSE
B	120419		A	POWER S/C COABLING	31	IO			JPL	MC			OSE
B	120420		B	POWER TAPE RECORDER	31	IO			JPL	MC			OSE
B	120421		A	POWER DAS	31	IO			JPL	MC			OSE
B	120422		A	POWER COSMIC RAY TELESCP	31	IO			JPL	MC			OSE
B	120424		A	POWER COSMIC DUST	31	IO			JPL	MC			OSE
B	120425		A	POWER TRAPPED RAD DETECT	31	IO			JPL	MC			OSE
B	120426		A	POWER ION CHAMBER	31	IO			JPL	MC			OSE
B	120427		A	POWER SCAN	31	IO			JPL	MC			OSE
B	120428		A	POWER PLASMA PROBE DET	31	IO			JPL	MC			OSE
B	120429		A	POWER MAGNETOMETER	31	IO			JPL	MC			OSE
B	120430		A	POWER UV PHOTOMETERS	31	IO			JPL	MC			OSE
B	120431		A	POWER TV	31	IO			JPL	MC			OSE
B	120433		C	CC&S ENCODER	31	IO			JPL	MC			OSE
B	120434		B	CC&S A/C	31	IO			JPL	MC			OSE
B	120435		A	CC&S PYROTECHNICS	31	IO			JPL	MC			OSE
B	120437		D	ENCODER A/C	31	IO			JPL	MC			OSE
B	120438		C	ENCODER PYRO	31	IO			JPL	MC			OSE
B	120439		B	ENCODER OSE VIA J BOX	31	IO			JPL	MC			OSE
B	120440		A	DATA ENCODER PROPULSION	31	IO			JPL	MC			OSE
B	120441		E	ENCODER THERMAL	31	IO			JPL	MC			OSE
B	120442		D	ENCODER TAPE RECORDER	31	IO			JPL	MC			OSE
B	120443		F	ENCODER DAS	31	IO			JPL	MC			OSE
B	120444			DATA ENCODER SCAN SUBSYS	31	IO			JPL	MC			OSE
B	120445		B	ENCODER TRAPPED RAD	31	IO			JPL	MC			OSE
B	120446		A	ENCODER MAGNETOMETER	31	IO			JPL	MC			OSE
B	120447		A	ENCODER TELEVISION	31	IO			JPL	MC			OSE
B	120448		B	A/C A/C	31	IO			JPL	MC			OSE
B	120449		C	A/C STC J-BOX	31	IO			JPL	MC			OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 13 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END LTR	TITLE	REQD. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	REFERENCE NUMBER
B	120450		A	PYRO PYRO	31	IO			JPL	MC			OSE
B	120451		B	PYROTECHNICS STC J-BOX	31	IO			JPL	MC			OSE
B	120454			2400CPS MANEUVER&DC PWR	31	IO			JPL	MC			OSE
B	120456			COMMAND TAPE RECORDER	31	IO			JPL	MC			OSE
B	120458		C	RADIO RADIO OSE	31	IO			JPL	MC			OSE
B	120459		B	COMMAND COMMAND GSE	31	IO			JPL	MC			OSE
B	120460		B	POWER POWER OSE	31	IO			JPL	MC			OSE
B	120461		F	CC&S OSE	31	IO			JPL	MC			OSE
B	120462			ENCODER ENCODER OSE	31	IO			JPL	MC			OSE
B	120463		A	A/C A/C OSE	31	IO			JPL	MC			OSE
B	120464		E	PYRO PYRO OSE	31	IO			JPL	MC			OSE
B	120466		C	RF POWER UP & PWR AMPL	31	IO			JPL	MC			OSE
B	120474		A	ENCODER ION CHAMBER	31	IO			JPL	MC			OSE
B	120475		B	ENCODER 34A1	31	IO			JPL	MC			OSE
B	120476		E	POWER OSE VIA STC J-BOX	31	IO			JPL	MC			OSE
B	120477		F	A/C DAS	31	IO			JPL	MC			OSE
B	120478		A	A/C S/C CABLING	31	IO			JPL	MC			OSE
B	120479		A	ENCODER S/C CABLING	31	IO			JPL	MC			OSE
B	120480		E	CC&S STC J-BOX	31	IO			JPL	MC			OSE
B	120481			RADIO A/C	31	IO			JPL	MC			OSE
B	120482		B	PYROTECHNICS S/C CABLING	31	IO			JPL	MC			OSE
B	120483		B	A/C GAS VALVES/SOL VANE	31	IO			JPL	MC			OSE
D	120485			PYRO ARMING SWITCH	31	IO			JPL	MC			OSE
B	120486		E	SEPARATION CONNECTOR	31	IO			JPL	MC			OSE
B	120487		C	POWER UMBILICAL FUNCTION	31	IO			JPL	MC			OSE
B	120492		C	TLM TEMP TRANSDUCERS	31	IO			JPL	MC			OSE
B	120493			TELEMETRY FUNCTIONS	31	IO			JPL	MC			OSE
B	120494			SCAN PLAT FORM POWER	31	IO			JPL	MC			OSE
B	120501		H	INTERFACE CIRCUIT DATA	31	IO			JPL	MC			OSE
B	120502			COMMAND-GTS	31	IO			JPL	MC	120501		OSE
B	120503		A	RADIO-COMMAND	31	IO			JPL	MC	120501		OSE
B	120504		A	RADIO-RWV	31	IO			JPL	MC	120501		OSE
B	120505		A	RADIO-CDS	31	IO			JPL	MC	120501		OSE
B	120506		A	RADIO-CENTRAL RECORDER	31	IO			JPL	MC	120501		OSE
B	120507		B	RADIO-GROUND TELEMETRY	31	IO			JPL	MC	120501		OSE
B	120508		B	COMMAND-CDS	31	IO			JPL	MC	120501		OSE
B	120509		A	COMMAND-CENTRAL RECORDER	31	IO			JPL	MC	120501		OSE
B	120510			POWER-CC&S	31	IO			JPL	MC	120501		OSE
B	120511			POWER-GUIDANCE	31	IO			JPL	MC	120501		OSE
B	120512			POWER SYSTEM WIRING	31	IO			JPL	MC	120501		OSE

JPL 1000 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 14 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END LTR	TITLE	REQD. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	REFERENCE NUMBER
B	120513			POWER-CDS	31	IO			JPL	MC	120501		OSE
B	120514		A	POWER-SCIENCE	31	IO			JPL	MC	120501		OSE
B	120515			CC&S-CDS	31	IO			JPL	MC	120501		OSE
B	120516			DATA ENCODER-CENT RECOR	31	IO			JPL	MC	120501		OSE
B	120517		A	DATA ENCODER-GD TELEMET	31	IO			JPL	MC	120501		OSE
B	120518			GUIDANCE CDS	31	IO			JPL	MC	120501		OSE
B	120519			PYROTECHNIC-CDS	31	IO			JPL	MC	120501		OSE
B	120520		A	TAPE RECORDER CDS	31	IO			JPL	MC			OSE
B	120521		A	CENTRAL TIMING-RWV	31	IO			JPL	MC	120501		OSE
B	120522		B	RWV-GROUND TELEMETRY	31	IO			JPL	MC	120501		OSE
B	120523		B	CDS-READ WRITE & VERIFY	31	IO			JPL	MC			OSE
B	120524		C	CDS-GROUND TELEMETRY	31	IO			JPL	MC			OSE
B	120525			CENTRAL TIMING	31	IO			JPL	MC	120501		OSE
B	120526		A	DATA ENCODER-CDS	31	IO			JPL	MC	120501		OSE
B	120527		B	TAPE RECORDER GTS	31	IO			JPL	MC			OSE
B	120528			SCIENCE-CENTRAL TIMING	31	IO			JPL	MC	120501		OSE
B	120529		A	SCIENCE GROUND TELMETERY	31	IO			JPL	MC			OSE
B	120530			DATA ENCODER-TAPE RECORD	31	IO			JPL	MC	120501		OSE
B	120531		A	TTY ENCODER-GD TELEMETRY	31	IO			JPL	MC	120501		OSE
B	120532		B	CENTRAL TIMING	31	IO			JPL	MC			OSE
B	120533		A	CENTRAL RECORDER	31	IO			JPL	MC	120501		OSE
B	120534			TTY ENDODER-CENT TIMING	31	IO			JPL	MC	120501		OSE
B	120535		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120536		A	SCIENCE	31	IO			JPL	MC	120501		OSE
B	120537		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120538		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120539		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120540		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120541		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120542		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120543		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120544		B	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120545		A	SCIENCE CDS	31	IO			JPL	MC			OSE
B	120546			COMMAND-RWV	31	IO			JPL	MC	120501		OSE
B	120547			CDS DIGITAL CLASS 3	31	IO			JPL	MC	120501		OSE
B	120548			CDS DIGITAL CLASS2	31	IO			JPL	MC	120501		OSE
B	120549			CDS DIGITAL CLASS 1	31	IO			JPL	MC	120501		OSE
B	120550			CDS ANALOG	31	IO			JPL	MC	120501		OSE
B	120551		A	RETURN SIDE TREE	31	IO			JPL	MC			OSE
B	123124		A	MOUNT RAIL STANDARD 19	32	L	08	63	JPL	MC	8800508		OSE

JPL 1000 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 15 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	123125		A	SIDE PANEL	32	L	08	63	JPL	MC			OSE
D	123127		A	GUSSET	32	L	08	63	JPL	MC			OSE
D	123129		A	CARD FILE ASSY	32	L	08	63	JPL	MC			OSE
D	123139		A	CARD FILE ASSY	32	L	09	63	JPL	MC			OSE
D	123140		A	GUIDE RAIL	32	L	08	63	JPL	MC			OSE
D	123141		A	END PLATE	32	L	08	63	JPL	MC			OSE
B	123228	DL	B	RACK CC&S	34	L	06	64	JPL	MC			OSE
J	123231			BASE MTG WELDMENT	34	L	05	63	JPL	MC	123230		OSE
D	123232			SPT REAR ALIGN STAND	34	L	05	63	JPL	MC	123230		OSE
D	123233			SPT FRONT ALIGN STND	34	L	05	63	JPL	MC	123230		OSE
C	123234			BAR SWIVEL ALIGN STD	34	L	05	63	JPL	MC	123230		OSE
C	123235			CLAMP IMAGE DISSECTR	34	L	05	63	JPL	MC	123230		OSE
C	123236			STOP TUBE	34	L	05	63	JPL	MC	123230		OSE
C	123237			PLATE ALIGNMENT STND	34	L	05	63	JPL	MC	123230		OSE
B	123238			HOUSING ALIGN STAND	32	L	05	63	JPL	MC	123230		OSE
C	123239			SPRING ALIGNMENT STD	34	L	05	63	JPL	MC	123230		OSE
D	123424			SCHEM DIAG TEST BRD	34	L	01	63	JPL	MC	123425		OSE
J	123425			CB 1 ASSY SELF TEST	34	L	01	63	JPL	MC			OSE
C	123505			BLOCK ALIGNMENT STND	34	L	05	63	JPL	MC	123230		OSE
C	123506			BRACE ALIGNMENT STND	34	L	05	63	JPL	MC	123230		OSE
C	123507			BAR SWIVEL ALIGN STD	34	L	05	63	JPL	MC	123230		OSE
D	123508			FACE PLATE ASSY	34	L	05	63	JPL	MC	123230		OSE
C	123509			PIN ALIGNMENT STAND	34	L	05	63	JPL	MC	123230		OSE
B	123510			GUIDE	34	L	05	63	JPL	MC	123230		OSE
C	123511			SPRING COMPRESSION	34	L	05	63	JPL	MC	123230		OSE
C	123512			RING ALIGNMENT STAND	34	L	05	63	JPL	MC	123230		OSE
B	123513			SUPPORT	34	L	05	63	JPL	MC	123230		OSE
D	123514			BLK MTG ALIGNMNT STD	34	L	05	63	JPL	MC	123230		OSE
B	123515			SCREW BASE PLATE	34	L	05	63	JPL	MC	123230		OSE
C	124290			SPACER ALIGNMENT STD	34	L	05	63	JPL	MC	123508		OSE
C	124291			MIRROR IMAGE DISSECT	34	L	05	63	JPL	MC	123508		OSE
B	124324			BAR SPACNG ALIGN STD	34	L	05	63	JPL	MC	123230		OSE
J	124633			INTERNAL SHIP CONTAINER	34	L	08	63	JPL	MC	124634		OSE
J	124634			EXTERNAL CARRYING CASE	34	L	08	63	JPL	MC			OSE
C	124688			LINK CABLE	35	L	10	63	JPL	MC	8100350		OSE
J	124720			LOGIC WIRING DGM	32	L	10	63	JPL	MC			OSE
J	124721			SMIT SUSPENSION SYS ASSY	35	IO			JPL	MC			OSE
J	124722			SUPPORT ASSY SMIT	35	IO			JPL	MC			OSE
J	124723			SUPPORT SMIT SUSPENSION	35	IO			JPL	MC			OSE
J	124724			BEAM SMIT SUSPENSION SYS	35	IO			JPL	MC			OSE

JPL 1060 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 16 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	124725			TUBE FITTING SMIT SYS	35	IO			JPL	MC			OSE
D	124726			SCREW SMIT SUSPENSION	35	IO			JPL	MC			OSE
D	124727			GIMBAL ASSY SMIT SYS	35	IO			JPL	MC			OSE
D	124728			GIMBAL SMIT SUSPENSION	35	IO			JPL	MC			OSE
	124729			BARRELL GIMBAL SMIT	35	IO			JPL	MC			OSE
	124730			SHAFT ADJUST SMIT	35	IO			JPL	MC			OSE
	124731			PLATE INDEX G SMIT	35	IO			JPL	MC			OSE
	124732			RETAINER BEARING SMIT	35	IO			JPL	MC			OSE
	124733			SCREW GIMBAL SMIT	35	IO			JPL	MC			OSE
	124734			YOKE ASSY SMIT	35	IO			JPL	MC			OSE
	124735			YOKE SUSPENSION SMIT	35	IO			JPL	MC			OSE
	124736			NUT SUSPENSION SMIT	35	IO			JPL	MC			OSE
	124737			PLATE-ATTACH SMIT	35	IO			JPL	MC			OSE
	124738			PLATE BEARING SMIT	35	IO			JPL	MC			OSE
B	124739			PLATE COVER SMIT	35	IO			JPL	MC			OSE
	124740			CLIP SPRING SMIT	35	IO			JPL	MC			OSE
	124741			SPACER BRG BARRELL SMIT	35	IO			JPL	MC			OSE
	124742			SPACER SHAFT ADJUST SMIT	35	IO			JPL	MC			OSE
	124743			SPACER GIMBAL SCREW SMIT	35	IO			JPL	MC			OSE
	124744			HANGER ASSY SMIT	35	IO			JPL	MC			OSE
	124745			HANGER BRG HANGER SMIT	35	IO			JPL	MC			OSE
	124746			RETAINER BRG HANGER SMIT	35	IO			JPL	MC			OSE
	124747			SPACER HANGER SMIT	35	IO			JPL	MC			OSE
	124748			ADJUSTMENT DGM SMIT	35	IO			JPL	MC			OSE
	124749			TOOL OUTER ADJUST SMIT	35	IO			JPL	MC			OSE
	124750			TOOL INNER ADJUST SMIT	35	IO			JPL	MC			OSE
	124751			LEVER ADJUST SMIT	35	IO			JPL	MC			OSE
J	124756		A	LOGIC DIAG TV CONT PNL	32	L	02	64	JPL	MC			OSE
J	124923			NITROGEN SYS WELDMENT	38	L	09	63	JPL	MC			OSE
J	124998			CG TEST STAND ASSY	35	L	03	64	JPL	MC			OSE
J	124999		A	FRAME WELDMENT CG TEST	35	L	09	64	JPL				OSE
J	125457			FIXTURE WELD MID COURSE	35	L	03	64	JPL	MC			OSE
J	125506			ADAPTOR U RING ASSY	35	C	07	64	JPL	MC			OSE
B	125691		A	ENCODER OSE STC J-BOX	31	IO			JPL	MC			OSE
B	125700			PYRO PAS & SIT ACTUATORS	31	IO			JPL	MC			OSE
D	125726			CRA FRONT PANEL SW WIR	32	O			JPL	MC			OSE
C	125727			CRA CONNECTOR WIRING	32	O			JPL	MC			OSE
B	125728			CONNECTOR WIRING	32	O			JPL	MC			OSE
J	125837			RIGGING ASSY	35	L	02	64	JPL	MC			OSE
J	125838			FRAME SPREADER	35	L	02	64	JPL	MC	125837		OSE

JPL 1060 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 17 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	WHO DO	NEXT ASSEMBLY	QTY REQ.	REFERENCE NUMBER
D	125839			SPIDER WELDMENT	35	L	02	64	JPL	MC	125837		OSE
D	125840			CLEVIS WELDMENT	35	L	02	64	JPL	MC	125837		OSE
B	125841			CABLE ASSEMBLY	35	L	02	64	JPL	MC	125837		OSE
B	125842			CABLE ASSEMBLY	35	L	02	64	JPL	MC	125837		OSE
B	125843			CABLE ASSEMBLY	35	L	02	64	JPL	MC	125837		OSE
B	125846	WL		PROTOTYPE 120RC6A10	32	L	01	64	JPL	MC	8800546		OSE
J	125850			PROTECTIVE COVER LOUVERS	35	L	12	63	JPL	MC			OSE
D	126063			CROSSBAR SELECTOR SWITCH	32	L	04	64	JPL	MC			OSE
J	126323			SAFETY COVER ASSY COSMIC	35	L	05	64	JPL	MC			OSE
B	126349			TLM PROCESSING STATION	31	IO			JPL	MC			OSE
B	126350			BINARY DATA & BIT SYNC	31	IO			JPL	MC			OSE
J	126915			CHECK RING ASSY	35	L	08	64	JPL	MC			OSE
J	127078			LOGIC DIAGRAM	32	L	09	64	JPL	MC			OSE
J	127079			LOGIC DIAGRAM	32	L	09	64	JPL	MC			OSE
B	127135			VIDEO STORAGE CENTRA	31	IO			JPL	MC			OSE
D	127344			FM W/R DGM/AM DET SCHEM	33	IO			JPL	MC			OSE
J	127345			FM DISCREMINATOR ASSY	33	IO			JPL	MC			OSE
B	127501			S/C SIMULATOR PWR BLK DG	31	L	10	64	JPL	MC			OSE
D	131165		C	PANEL VIDEO TAPE RECORDR	33	IO			JPL	MC			OSE
D	131166		A	PANEL-ENGRAVING MR-C UTR	33	IO			JPL	MC			OSE
B	131168			CONNECTOR BRKT FM DISCR	33	IO			JPL	MC			OSE
B	3154052		C	BACK UP RING TEFLON	34	L	07	64	JPL	MC	8200982		OSE
D	3262214		B	FRAME ASY SUBAY HANDLING	35	L	09	63	JPL	MC	8901975		OSE
D	3262215		A	FRAME SUBASSY HANDLING	35	L	09	63	JPL	MC	8901963		OSE
B	3262216		C	PIN LOCATING	35	L	07	64	JPL	MC	8901963		OSE
D	3262232			SUBASSY HANDLING	34	L	02	63	JPL	MC	3262233		OSE
D	3262233		C	FRAME ASSY SUBASSY HANDL	35	L	11	64	JPL	MC	8901975		OSE
D	3262234		C	RETAINER SUBASSY HANDL	35	L	07	64	JPL	MC	8901975		OSE
D	3262238			LOCK ASSY DRAW BAR	35	LX	04	63	JPL	MC	3262151		OSE
D	3262479	CD		TEMPERATURE XDUCER	33	L	01	64	JPL	MC	4201776		OSE
C	3344220		C	W DIAG LCGSE BREAKER PNL	31	L	10	64	JPL	MC	8902516		OSE
J	3344530		A	BREAKOUT BOX WELDMENT	31	L	10	63	JPL	MC	3344533		OSE
D	3345113		A	CC&S CONSOLE SCHEMATIC	32	L	07	64	JPL	MC	3345100		OSE
J	3345213		D	SCHEM BATTERY TEST	34	V	03	64	EOS	MC			OSE
C	3345500			CLAMP SWITCH	38	L	08	64	JPL	MC	3345486		OSE
J	3910513			PLATE EQUIPMENT MOUNTING	34	L	09	63	JPL	MC			OSE
D	3910514			PLATE EQUIPMENT MOUNTING	34	L	09	63	JPL	MC	3910513		OSE
J	3910515			CASE ASSY	34	L	09	63	JPL	MC			OSE
C	3910516			FITTING BULKHEAD	34	L	09	63	JPL	MC	3910513		OSE
C	3910517			FITTING	34	L	09	63	JPL	MC	3910513		OSE

JPL 1000 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 18 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	WHO DO	NEXT ASSEMBLY	QTY REQ.	REFERENCE NUMBER
C	3910518			FITTING	34	L	09	63	JPL	MC	3910513		OSE
C	3910519			FITTING	34	L	09	63	JPL	MC	3910513		OSE
C	3910520			FITTING	34	L	09	63	JPL	MC	3910513		OSE
C	3910521			FITTING	34	L	09	63	JPL	MC	3910513		OSE
C	3910551			PRESSURE VESSEL SELDMENT	34	L	09	63	JPL	MC	3910513		OSE
B	3910552			PLUG MODIFIED	34	L	09	63	JPL	MC	3910513		OSE
B	3910553			REDUCER	34	L	09	63	JPL	MC	3910513		OSE
D	3952072			HOOD LAMP JET VANE ACT	34	V	11	63	STL	MC	4101333		
J	4100563		B	FRAME ASSY-GROUND HAND	35	L	05	64	JPL	MC			OSE
J	4101330		A	LOUVER BASIC CHASSIS	35	L	02	64	JPL	MC	4101301		OSE
J	4190533			DRILL JIG	35	L	02	64	JPL	MC			OSE
J	4190551			FIXTURE-ASSEMBLY	35	L	02	64	JPL	MC			OSE
D	4190554			DRILL PLATE MOUNTING BLK	35	L	02	64	JPL	MC			OSE
D	4190555		A	ALIGNMENT PLATE	35	L	06	64	JPL	MC	4190561		OSE
D	4190559			TOOL MARK 2 CRUISE DAMP	35	L	09	64	JPL	MC			OSE
J	4190560			DRILL PLATE BASE	35	L	06	64	JPL	MC	4190561		OSE
J	4190561			DRILL JIG MOUNTING BLOCK	35	L	06	64	JPL	MC			OSE
D	4190562			DRILL PLATE	35	L	06	64	JPL	MC	4190561		OSE
D	4190582			TOOL MARK 2 CRUISE	35	L	09	64	JPL	MC	4190583		OSE
J	4190583			HANDLING FIXTURE CRUISE	35	L	09	64	JPL	MC			OSE
D	4190586			LATCH TEST FIXTURE	35	L	09	64	JPL	MC			OSE
D	4190587			DRILL TEMPLATE SOLAR	35	L	09	64	JPL	MC			OSE
D	4190589			FIXTURE MARK 2 SOLAR PNL	35	L	09	64	JPL	MC			OSE
J	4190623			DEGAUSSER ASSY SOLAR PNL	35	L	10	64	JPL	MC			OSE
J	4190626			DEGAUSSER ASSY S/C	35	L	10	64	JPL	MC			OSE
D	4190630			ADAPTER RING ASSY	35	L	10	64	JPL	MC			OSE
J	4201329		I	CANOPUS SCHEMATIC DIAG	34	L	10	64	JPL	MC	4201453		OSE
J	4201534			SCHEM-DYNAMIC TEST RACK	34	L	04	64	JPL	MC			OSE
C	4201584			GYRO ALIGNMENT WRENCH	34	L	11	63	JPL	MC			OSE
[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]
J	4201776		B	ATTITUDE CONTROL	34	L	09	64	JPL	MC	8201002		OSE
D	4800904		A	FILTER SHUTTER ASSY	32	L	10	64	JPL	MC	4800900		
C	4800912		A	LATCH ASSY SHUTTER ASSY	32	L	10	64	JPL	MC	4800900		
C	4801602	CD		XDUCER XPORT PRESSURE	33	L	10	63	JPL	MC			OSE
J	4801668			STICK 6 ASSY SIDE A	35	L	01	64	JPL	MC	4801637		OSE
D	4801801			FILTER SHUTTER ASSY	32	L	10	64	JPL	MC	4800900		
C	4801802			SCREW ASSY	32	L	10	64	JPL	MC	4800900		
B	4801804			PLATE	32	L	10	64	JPL	MC	4800900		
B	4801805			INSULATOR	32	L	10	64	JPL	MC	4800900		
B	4801806			STRIP SHUTTER ASSY	32	L	10	64	JPL	MC	4800900		

JPL 1000 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 19 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	4801807			SPACER FULTER	32	L	10	64	JPL	MC	4800900		
B	4900645			ENVIRONMENTAL TEST CABLE	35	L	09	63	JPL	MC			OSE
B	4901104		A	LATCH PIN	35	L	06	63	JPL	MC			OSE
B	4901119			PIN SPRING	35	L	09	63	JPL	MC			OSE
C	4901163			SCREW MACHINE	35	L	01	64	JPL	MC			OSE
D	8100191			SUSPENSION CABLE INSTL	35	L	06	63	JPL	MC			OSE
J	8100092		C	CENTER OF GRAVITY	35	L	07	64	JPL	MC			OSE
J	8100165			FIXTURE ASSY HANDLING	35	L	02	64	JPL	MC			OSE
J	8100166			FRAME ASY MOUNTING	35	L	02	64	JPL	MC	8100165		OSE
D	8100167			LINK ASY HANDLING FIX	35	L	02	64	JPL	MC	8100165		OSE
D	8100168			POST ASSY HINGE	35	L	02	64	JPL	MC	8100165		OSE
C	8100169			PLATE HINGE HANDLING FIX	35	L	02	64	JPL	MC	8100165		OSE
B	8100170			WASHER HANDLING FIXTURE	35	L	02	64	JPL	MC	8100165		OSE
D	8100181			ENVELOPE SOLAR PANEL	35	L	12	64	JPL	MC			OSE
D	8100182		A	DUST COVER SOLAR PANEL	35	L	11	64	JPL	MC			OSE
J	8100188			FIXTURE HANDLING & ASSY	38	L	07	63	JPL	MC			
J	8100190	CD		BAG SPACECRAFT	35	L	04	64	JPL	MC			OSE
D	8100197			SUSPENSION CABLE INSTL	35	L	10	63	JPL	MC			OSE
D	8100199			GIMBAL ASSY GIMBAL OPER	35	L	10	63	JPL	MC			OSE
J	8100200		A	UNIVERSAL RING	35	L	02	64	JPL	MC	8100201		OSE
J	8100201		A	UNIVERSAL RING ASSEMBLY	35	L	02	64	JPL	MC			OSE
J	8100203			STRUCTURE WELDMENT	35	L	05	63	JPL	MC	8100206		OSE
C	8100204			LEG ASSY	35	L	05	63	JPL	MC			OSE
D	8100205			SUPPORT WELDMENT	35	L	05	63	JPL	MC	8100206		OSE
J	8100206			SERVICE DOLLY ASSY	35	L	05	63	JPL	MC			OSE
D	8100209			ENVELOPE&CLEARANCE DIMEN	35	L	01	64	JPL	MC			OSE
D	8100210			HOOK HEIGHT DIMENSIONS	35	L	01	64	JPL	MC			OSE
D	8100212			BRACKET WELDMENT	35	L	05	63	JPL	MC	8100206		OSE
J	8100213			RACK SOLAR PANEL STORAGE	35	L	12	63	JPL	MC			OSE
J	8100214			SPACER WELDMENT	35	L	06	63	JPL	MC			OSE
J	8100215		C	ASSY LOW LEVEL POSITIONR	35	L	11	63	JPL	MC			OSE
J	8100216		G	BASE WELDMENT	35	L	11	63	JPL	MC	8100215		OSE
J	8100217		E	YOKE WELDMENT	35	L	11	63	JPL	MC	8100215		OSE
J	8100218		D	RING WELDMENT	35	L	11	63	JPL	MC	8100215		OSE
D	8100219		D	CONNECTING LINK	35	L	11	63	JPL	MC	8100215		OSE
C	8100220		B	CRANK LOW LEVL POSITIONR	35	L	11	63	JPL	MC	8100215		OSE
B	8100221		C	PIN RING SUPPORT	35	L	11	63	JPL	MC	8100215		OSE
C	8100222		B	PIN YOKE SUPPORT	35	L	11	63	JPL	MC	8100215		OSE
C	8100223		B	PIN YOKE DRIVE END	35	L	11	63	JPL	MC	8100215		OSE
C	8100224		E	SHEAVE RING CONTROL	35	L	11	63	JPL	MC	8100215		OSE

JPL 1866 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 20 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	8100225		C	DRUM CABLE	35	L	11	63	JPL	MC	8100215		OSE
C	8100226		B	PIN CONNECTING LINK	35	L	11	63	JPL	MC	8100215		OSE
J	8100227		F	LOW-LEVL POSITIONR SCHEM	35	L	11	63	JPL	MC	8100215		OSE
C	8100228		B	BRACKET PULLEY	35	L	11	63	JPL	MC	8100215		OSE
D	8100229		C	SHAFT LOW LEVL POSITIONR	35	L	11	63	JPL	MC	8100215		OSE
D	8100230		D	CABLE ASSY	35	L	11	63	JPL	MC	8100215		OSE
D	8100231		D	CABLE ASSY	35	L	11	63	JPL	MC	8100215		OSE
J	8100232		G	CONTROL PENDANT	35	L	11	63	JPL	MC	8100215		OSE
C	8100233		A	STUD YOKE RING	35	L	11	63	JPL	MC	8100215		OSE
B	8100234			SPACER RING SUPPORT	35	L	11	63	JPL	MC	8100215		OSE
B	8100235		B	MOUNT GEAR	35	L	11	63	JPL	MC	8100215		OSE
C	8100236		A	STRAP LOW LEVL POSITIONR	35	L	11	63	JPL	MC	8100215		OSE
C	8100237			ANCHOR CABLE	35	L	11	63	JPL	MC	8100215		OSE
C	8100239		A	SCREW LEVELING JACK	35	L	11	63	JPL	MC	8100215		OSE
C	8100240		A	ASSY FOOT LOW LEVEL	35	L	11	63	JPL	MC	8100215		OSE
B	8100241		A	BOSS LEVELING JACK	35	L	11	63	JPL	MC	8100215		OSE
C	8100242		C	HANGER COMPONENT	35	L	11	63	JPL	MC	8100215		OSE
C	8100243		B	SCREW LEVELING JACK	35	L	11	63	JPL	MC	8100215		OSE
D	8100244		B	SUPPORT SHAFT	35	L	11	63	JPL	MC	8100215		OSE
D	8100245			CLAMP ASSY & DETAILS	35	L	06	63	JPL	MC	8100201		OSE
B	8100246			SPREADER BAR EQUALIZING	35	L	10	63	JPL	MC	8100350		OSE
C	8100247			CABLE ASSY	35	L	10	63	JPL	MC	8100246		OSE
D	8100248			SPREADER BAR ASSY	35	L	11	63	JPL	MC	8100246		OSE
D	8100249			FITTING HOIST WELDMENT	35	L	10	63	JPL	MC	8100246		OSE
C	8100250			CABLE ASSY	35	L	06	63	JPL	MC	8100251		OSE
B	8100251			CABLE CLAMP ASSY	35	L	06	63	JPL	MC	8100201		OSE
D	8100252			SPREADER BAR WELDMENT	38	L	07	63	JPL	MC	8100255		OSE
B	8100253			CABLE ASSY	38	L	07	63	JPL	MC	8100255		OSE
B	8100254			SLING ASSY	38	L	07	63	JPL	MC	8100255		OSE
B	8100255			HOIST ASSY	38	L	07	63	JPL	MC			OSE
J	8100256			SIMULATOR ASSY	35	L	09	63	JPL	MC			OSE
D	8100257			RING BAG ATTACHING	35	L	02	64	JPL	MC	8100201		OSE
J	8100258			ROLLER ASSY SOLAR PANEL	35	L	12	63	JPL	MC	8100213		OSE
D	8100259	CD	A	TRANSPORT TRAILER	35	L	07	63	JPL	MC			OSE
B	8100260			SCREW ADJUSTING	35	L	02	64	JPL	MC	8100165		OSE
B	8100261			BUSHING HANDLING FIXTURE	35	L	02	64	JPL	MC	8100165		OSE
B	8100264			PIN HANDLING FIXTURE	35	L	02	64	JPL	MC	8100165		OSE
J	8100265		C	ENCLOSURE ASSY	35	L	05	64	JPL	MC	8100271		OSE
J	8100266		B	NETOHART SUSPENSION ASSY	35	L	05	64	JPL	MC			OSE
J	8100267		A	SUSPENSION INSTALLATION	35	L	05	64	JPL	MC			OSE

JPL 1866 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 21 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	DESIG DIV.	PRG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CDL	SEQUENCE NUMBER
J	8100268			MECHANICAL BRAKE INSTL	35	L	05	64	JPL	MC			OSE
J	8100269		A	CRADLE ASSY MARINER	35	L	05	64	JPL	MC			OSE
J	8100270		B	DOOR ASSEMBLY	35	L	05	64	JPL	MC	8100271		OSE
J	8100271		A	TRAILER ASSY MARINER	35	L	05	64	JPL	MC			OSE
J	8100272		A	ELECTRICAL SCHEMATIC	35	L	05	64	JPL	MC			OSE
J	8100273		B	A FRAME ASSY MARINER	35	L	05	64	JPL	MC	8100271		OSE
J	8100274		B	MISCELLANEOUS HARDWARE	35	L	05	64	JPL	MC	8100271		OSE
J	8100275			ELECTRICAL INSTALLATION	35	L	05	64	JPL	MC			OSE
J	8100276			FORK LIFT TUBE ASSY	35	L	05	64	JPL	MC	8100271		OSE
C	8100311		A	MOUNT BEARING	35	L	11	63	JPL	MC	8100215		OSE
C	8100312			BRACKET BEARING MOUNT	35	L	11	63	JPL	MC	8100215		OSE
C	8100314			BRACKET POT SUPPORT	35	L	11	63	JPL	MC	8100215		OSE
D	8100315		B	BRACKET IDLER DRUM	35	L	11	63	JPL	MC	8100215		OSE
C	8100316		B	PROTRACTOR	35	L	11	63	JPL	MC	8100215		OSE
C	8100317			BULLET RING/YOKE	35	L	11	63	JPL	MC	8100215		OSE
D	8100318			SPT INTERCONNECT BOX	35	L	11	63	JPL	MC	8100215		OSE
B	8100319			SHAFT IDLER DRUM	35	L	11	63	JPL	MC	8100215		OSE
C	8100320			COLLAR	35	L	11	63	JPL	MC	8100215		OSE
C	8100321		A	SOCKET SHIFTING LEVER	35	L	11	63	JPL	MC	8100215		
C	8100322			DRUM IDLER	35	L	11	63	JPL	MC	8100215		OSE
C	8100323		A	STRAP LIFTING	35	L	09	64	JPL	MC			OSE
J	8100324			SHELL LOWER ASSY WELDMEN	35	L	09	64	JPL	MC	8100327		OSE
J	8100325			SHELL UPPER WELDMENT	35	L	09	64	JPL	MC	8100327		OSE
D	8100326			COVER PLATE WELDMENT	35	L	09	64	JPL	MC	8100327		OSE
J	8100327			COVER ASSY S/C SHIPPING	35	L	09	64	JPL	MC			OSE
D	8100328			FITTING SPREADER BAR ASY	35	L	10	63	JPL	MC	8100246		OSE
J	8100329			HANDLING FIXTURE ASSY	35	L	09	63	JPL	MC			OSE
J	8100330			HANDLING FIXTURE WELDMNT	35	L	09	63	JPL	MC	8100329		OSE
D	8100331		A	COVER TILT READOUT	35	L	11	63	JPL	MC	8100215		OSE
C	8100332		A	STOP MECHANICAL	35	L	11	63	JPL	MC	8100215		OSE
C	8100333			STRAP PULLEY SPACER	35	L	11	63	JPL	MC	8100215		OSE
D	8100334		D	DETAILS	35	L	11	63	JPL	MC	8100215		OSE
D	8100335		B	SEAL BEARING	35	L	11	63	JPL	MC	8100215		OSE
D	8100336		B	DETAILS REDUCER MOUNT	35	L	11	63	JPL	MC	8100215		OSE
D	8100337			BRACKET TACH GENERATOR	35	L	11	63	JPL	MC	8100215		OSE
J	8100338		D	PLATEFORM	35	L	11	63	JPL	MC	8100215		OSE
D	8100339		A	COVER TACH GEN	35	L	11	63	JPL	MC	8100215		OSE
C	8100340		B	CABLE ROTATION	35	L	11	63	JPL	MC	8100215		OSE
J	8100345		B	INTERCONNECT PANEL	35	L	11	63	JPL	MC	8100215		OSE
C	8100347			CABLE ASSY	35	L	10	63	JPL	MC	8100350		OSE

JPL 1590 JAN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 22 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	DESIG DIV.	PRG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CDL	SEQUENCE NUMBER
C	8100349			CABLE ASSY	35	L	10	63	JPL	MC	8100350		OSE
C	8100350			HOIST ASSY	35	L	10	63	JPL	MC			OSE
D	8100351			ANCHOR SHACKLE	35	L	10	63	JPL	MC	8100350		OSE
D	8100352			SUSPENSION CABLE INSTL	35	L	10	63	JPL	MC			OSE
J	8100354			SUSPENSION CABLE INSTL	35	L	11	63	JPL	MC			OSE
J	8100355			SUSPENSION CABLE INSTL	35	L	11	63	JPL	MC			OSE
J	8100360			SPREADER BAR ASSY	35	L	11	63	JPL	MC			OSE
J	8100365			SUSPENSION CABLE INSTL	35	L	11	63	JPL	MC			OSE
J	8100367			TOP BOX SHIP CONTAINER	35	L	01	64	JPL	MC	8100368		OSE
D	8100368			CONTAINER SHIPPING	35	L	01	64	JPL	MC			OSE
J	8100370			BOX ASSY SHIP CONTAINER	35	L	01	64	JPL	MC	8100368		OSE
J	8100371		A	OMNI-ANTENNA	35	L	12	63	JPL	MC			OSE
J	8100372			CYLINDER ASSY	35	L	11	63	JPL	MC	8100372		OSE
J	8100337			RACK SPT SHIP CONTAINER	35	L	11	63	JPL	MC	8100388		OSE
J	8100388			RACK ASSY	35	L	11	63	JPL	MC	8100371		OSE
J	8100390			MAGNETOMETER TEST PROBE	35	L	05	64	JPL	MC			OSE
J	8100391			TEST PROBE ADJUSTING	35	L	05	64	JPL	MC			OSE
J	8100392		B	SOLAR PANEL MAPPING FIXT	35	L	05	64	JPL	MC			OSE
J	8100394			TRACK ASSY MAGNETOMETER	35	L	05	64	JPL	MC			OSE
J	8100395			Z AXIS TURNTABLE	35	L	05	64	JPL	MC			OSE
J	8100396			TURNTABLES&TURNING FIXT	35	L	05	64	JPL	MC			OSE
J	8100397			MAGNETOMETER MAPPING	35	L	05	64	JPL	MC			OSE
B	8100418			WASHER FLAT UNIVERSAL	35	L	02	64	JPL	MC	8100201		OSE
J	8100421			END CAP ASSY	35	L	12	63	JPL	MC	8100371		OSE
C	8100424			SHAFT VIDICON COLLIMATOR	35	L	02	64	JPL	MC	8100431		OSE
C	8100425			NUT-VIDICON COLLIMATOR	35	L	02	64	JPL	MC	8100431		OSE
C	8100426			COLLAR VIDICON COLLIMATR	35	L	02	64	JPL	MC	8100431		OSE
D	8100427			ARM VIDICON COLLIMATOR	35	L	02	64	JPL	MC	8100432		OSE
D	8100428			ADJUSTMENT PLATE VIDICON	35	L	02	64	JPL	MC	8100431		OSE
D	8100429			MOUNTING PLATE VIDICON	35	L	02	64	JPL	MC	8100431		OSE
D	8100430			BASE VIDICON COLLIMATOR	35	L	02	64	JPL	MC	8100431		OSE
D	8100431			BRACKET ASY VIDICON	35	L	02	64	JPL	MC			OSE
J	8100432			CARRYING CASE SOLAR PNL	35	L	03	64	JPL	MC			OSE
J	8100433			PORTABLE PURGE CONTROL	35	L	06	64	JPL	MC			OSE
J	8100434			STABILIZING RING ASSY	35	L	04	64	JPL	MC			OSE
J	8100437			INSTRUMENT PNL PORTABLE	35	L	06	64	JPL	MC	8100433		OSE
J	8100438			STRUT ASSY SOLAR PNL	35	L	07	64	JPL	MC			OSE
J	8100439			COVER ASSY LOUVER PROT	35	L	06	64	JPL	MC			OSE
J	8100440			PROTECTIVE FRAME	35	L	09	64	JPL	MC	8100327		OSE
C	8100441			POWER CABLE ASSEMBLY	35	L	08	64	JPL	MC	8100215		OSE

JPL 1590 JAN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 23 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	8100442			POWER CABLE ASSEMBLY	35	L	08	64	JPL	MC	8100215		OSE
C	8100443			GIRTH CABLE ASSEMBLY	35	L	08	64	JPL	MC	8100201		OSE
J	8100444			INSTALLATION GUIDE S/C	35	L	08	64	JPL	MC			OSE
4	8100445			RELIEF VALVE ASSY SHROUD	35	L	09	64	JPL	MC			OSE
J	8200178		B	CB4 PC CLEAR COMMAND	34	V	04	63	STL	MC	8200177		OSE
J	8200209		E	BOOSTER NITROGEN	34	L	11	64	JPL	MC			OSE
J	8200295		A	LOGIC ASSY CC&S	34	V	08	63	STL	MC	8200343		OSE
J	8200321		A	GROUND SUPPORT RACK CC&S	34	V	08	63	STL	MC			OSE
J	8200322		A	BLOCKHOUSE ASSY	34	V	08	63	STL	MC	8200321		OSE
J	8200376		B	GROUND SUPPORT RACK CC&S	34	L	07	64	JPL	MC			OSE
D	8200377		C	CABLE ASSY 115 VAC RACK	34	L	10	63	JPL	MC	8200376		OSE
J	8200379		B	REAR PANEL RACK	34	L	07	64	JPL	MC	8200376		OSE
J	8200380		E	OSE LAB TEST CABLE	34	L	05	64	JPL	MC	8200376		OSE
J	8200381		C	DIRECT ACCESS CABLE #1	34	L	07	64	JPL	MC	8200376		OSE
J	8200382		D	DIRECT ACCESS CABLE #2	34	L	07	64	JPL	MC	8200376		OSE
J	8200383		F	RACK HARNESS W DIAG	34	L	07	64	JPL	MC	8200376		OSE
D	8200384			PANEL GROUND SPT RACK	34	L	10	63	JPL	MC	8200376		OSE
D	8200385		B	FAN PLATE ASSY	34	L	10	63	JPL	MC	8200376		OSE
D	8200386		A	FAN PLATE FAN PLATE ASSY	34	L	10	63	JPL	MC	8200385		OSE
D	8200388			BLOCKHOUSE TEST SET	34	L	10	63	JPL	MC			OSE
J	8200389			BLOCKHOUSE CHASSIS	34	L	10	63	JPL	MC			OSE
J	8200390		E	DIRECT ACCESS SIGNAL	34	L	06	64	JPL	MC	8200376		OSE
J	8200391		E	DIRECT ACCESS SIGNAL	34	L	07	64	JPL	MC	8200390		OSE
J	8200392		E	CB 15 ASSY DIRECT ACCESS	34	L	07	64	JPL	MC	8200390		OSE
A	8200392	PL	D	DIRECT ACCESS SIG CONDIT	34	L	02	64	JPL	MC	8200392		OSE
J	8200393		D	DIRECT ACCESS SCHEM	34	L	02	64	JPL	MC	8200392		OSE
J	8200394		D	CB15 P CKT DIRECT ACCESS	34	L	07	64	JPL	MC	8200392		OSE
J	8200396		B	SYSTEMS PWR SUPPLY BLOCK	34	L	06	64	JPL	MC	8200640		OSE
J	8200397			WIRING DGM SYS POWER SUP	34	L	10	63	JPL	MC	8200640		OSE
J	8200398		A	2.4KC LEVEL DETECTOR ASY	34	L	10	63	JPL	MC	8200640		OSE
A	8200398	PL	B	2.4 KC LEVEL DET ASSY	34	L	07	64	JPL	MC	8200398		OSE
J	8200399		C	SCHEMATIC DIAG 2.4 KC	34	L	07	64	JPL	MC	8200398		OSE
J	8200536		F	SYSTEMS ASSEMBLY	34	L	07	64	JPL	MC	8200376		OSE
J	8200537		B	FR PNL ASSY SYSTEMS ASSY	33	L	02	64	JPL	MC	8200536		OSE
J	8200538		A	SYSTEMS FRONT PANEL	34	L	10	63	JPL	MC	8200537		OSE
J	8200539		D	FRONT PANEL W DIAG SYS	34	L	05	64	JPL	MC	8200537		OSE
D	8200540		B	REAR PANEL ASSEMBLY	34	L	05	64	JPL	MC	8200536		OSE
D	8200541		A	REAR PANEL SYSTEMS ASSY	34	L	05	64	JPL	MC	8200540		OSE
D	8200542			BOTTOM PLATE SYSTEMS ASY	34	L	10	63	JPL	MC	8200536		OSE
C	8200543		A	COVER PLATE SYSTEMS ASSY	34	L	01	63	JPL	MC	8200536		OSE

JPL 1000 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 24 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	8200544		A	PANEL SIDE SYSTEMS ASSY	34	L	10	63	JPL	MC	8200536		OSE
J	8200545		A	CARD RACK ASSY	34	L	10	63	JPL	MC	8200536		OSE
J	8200545		A	CARD RACK ASSY	34	L	10	63	JPL	MC	8200660		OSE
D	8200546			POWER SUPPLY ASSY	34	L	10	63	JPL	MC	8200536		OSE
J	8200547		D	MANUAL COMMANDS BLOCK	34	L	07	64	JPL	MC	8200536		OSE
J	8200548		F	SYS CHASSIS W DIAG	34	L	07	64	JPL	MC	8200536		OSE
J	8200549		C	SYS CARD FILE #1 W DIAG	34	L	07	64	JPL	MC	8200536		OSE
D	8200550			SYSTEMS CHASSIS SYS ASSY	34	L	10	63	JPL	MC	8200536		OSE
J	8200551		F	SYS CARD FILE #2 W DIAG	34	L	07	64	JPL	MC	8200536		OSE
J	8200552		D	SYS CC&S TIMING CONTROL	34	L	05	64	JPL	MC	8200536		OSE
J	8200553		E	AGENA SEP & MIDCOURSE	34	L	05	64	JPL	MC	8200536		OSE
J	8200554		A	CB1 ASSY TYPE A BUFFER	34	L	10	63	JPL	MC	8200536		OSE
J	8200554		A	CB1 ASSY TYPE A BUFFER	34	L	10	63	JPL	MC	8200600		OSE
A	8200554	PL		CB1 TYPE A BUFFER	34	L	10	63	JPL	MC	8200554		OSE
D	8200555			TYPE A BUFFER SCHEM	34	L	10	63	JPL	MC	8200554		OSE
J	8200556		A	CB1 PC TYPE A BUFFER	34	L	10	63	JPL	MC	8200554		OSE
J	8200557		B	CB2 ASSY TYPE A INVERTER	34	L	10	63	JPL	MC	8200600		OSE
J	8200557		B	CB2 ASSY TYPE A INVERTER	34	L	10	63	JPL	MC	8200660		OSE
J	8200557		B	CB2 ASSY TYPE A INVERTER	34	L	10	63	JPL	MC	8200536		OSE
J	8200557		B	CB2 ASSY TYPE A INVERTER	34	L	10	63	JPL	MC	8200993		OSE
A	8200557	PL		CB2 TYPE A INVERTER	34	L	10	63	JPL	MC	8200557		OSE
D	8200558			TYPE A INVERTER SCHEM	34	L	10	63	JPL	MC	8200557		OSE
J	8200559		A	CB2 PC TYPE A INVERTER	34	L	10	63	JPL	MC	8200557		OSE
J	8200560		A	CB3 TYPE A AND GATE CC&S	34	L	10	63	JPL	MC	8200536		OSE
A	8200560	PL		CB3 TYPE A AND GATE	34	L	10	63	JPL	MC	8200560		OSE
D	8200561			TYPE A AND GATE SCHEM	34	L	10	63	JPL	MC	8200560		OSE
J	8200562		A	CB3 PC TYPE A AND GATE	34	L	10	63	JPL	MC	8200560		OSE
J	8200563		C	CB5 ASSY TYPE A ONE SHOT	34	L	10	63	JPL	MC	8200536		OSE
J	8200563		C	CB5 ASSY TYPE A ONE SHOT	34	L	10	63	JPL	MC	8200600		OSE
J	8200563		C	CB5 ASSY TYPE A ONE SHOT	34	L	10	63	JPL	MC	8200660		OSE
A	8200563	PL	A	CB5 TYPE A ONE SHOT	34	L	10	63	JPL	MC	8200563		OSE
D	8200564		A	CB5 A ONE SHOT SCHEM	34	L	10	63	JPL	MC	8200563		OSE
J	8200565		A	CB5 PC TYPE A ONE SHOT	34	L	10	63	JPL	MC	8200563		OSE
J	8200566		A	CB7 TYPE A FLIP FLOP	34	L	10	63	JPL	MC	8200536		OSE
J	8200566		A	CB7 TYPE A FLIP FLOP	34	L	10	63	JPL	MC	8200600		OSE
J	8200566		A	CB7 TYPE A FLIP FLOP	34	L	10	63	JPL	MC	8200660		OSE
A	8200566	PL		CB7 TYPE A FLIP FLOP	34	L	10	63	JPL	MC	8200566		OSE
D	8200567			TYPE A FLIP FLOP SCHEM	34	L	10	63	JPL	MC	8200566		OSE
J	8200568		A	CB7 PC TYPE A FLIP FLOP	34	L	10	63	JPL	MC	8200566		OSE
J	8200569		B	CB9 ASSY COMMAND TYPE B	34	L	12	63	JPL	MC	8200536		OSE

JPL 1000 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 25 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	DFT CODE	REFERENCE NUMBER
A	8200569	PL		CB9 COMMAND TYPE B DRIVR	34	L	10	63	JPL	MC	8200569		OSE
D	8200570			CB9 COMMAND TYPE B SCHEM	34	L	10	63	JPL	MC	8200569		OSE
J	8200571		A	CB9 PC COMMAND TYPE B	34	L	10	63	JPL	MC	8200569		OSE
J	8200572		B	CB10 ASSY COMMAND TYPE B	34	L	12	63	JPL	MC	8200536		OSE
A	8200572	PL		CB10 COMMAND TYPE B DRIV	34	L	10	63	JPL	MC	8200572		OSE
D	8200573			CB10 TYPE B DRIVER SCHEM	34	L	10	63	JPL	MC	8200572		OSE
J	8200574		A	CB10 PC COMMAND TYPE B	34	L	10	63	JPL	MC	8200572		OSE
J	8200575		A	CB11 SYS RELAY INTERFACE	34	L	10	63	JPL	MC	8200536		OSE
J	8200575		A	CB11 SYS RELAY INTERFACE	34	L	10	63	JPL	MC	8200993		OSE
D	8200576			CB11 SYSTEMS RELAY SCHEM	34	L	10	63	JPL	MC	8200575		OSE
J	8200577		A	CB11 PRINTED CIRCUITRY	34	L	10	63	JPL	MC	8200575		OSE
J	8200578		A	CB12 ASSY TYPE A OR GATE	34	L	10	63	JPL	MC	8200536		OSE
A	8200578	PL		CB12 ASSY TYPE A OR GATE	34	L	10	63	JPL	MC	8200578		OSE
D	8200579		A	TYPE A OR GATE SCHEM	34	L	10	63	JPL	MC	8200578		OSE
J	8200580		A	CB12 PC TYPE A OR GATE	34	L	10	63	JPL	MC	8200578		OSE
J	8200580		A	CB12 PC TYPE A OR GATE	34	L	10	63	JPL	MC	8200398		OSE
J	8200581		C	CB 13 ASSY CC&S TIMING	34	L	06	64	JPL	MC	8200536		OSE
A	8200581	PL	B	CB 13 CC&S TIMING	34	L	06	64	JPL	MC	8200581		OSE
D	8200582		B	CC&S TIMING SCHEMATIC	34	L	06	64	JPL	MC	8200581		OSE
J	8200583		B	CB13 P CKT CC&S TIMING	34	L	06	64	JPL	MC	8200581		OSE
J	8200584		C	CB14 ASSY CC&S TIMING	34	L	05	64	JPL	MC	8200536		OSE
A	8200584	PL	B	CB14CC&STIMING&MIDCOURSE	34	L	05	64	JPL	MC	8200584		OSE
D	8200585		B	CC&S T & MIDCOURSE	34	L	05	64	JPL	MC	8200584		OSE
J	8200586		B	CB14 PRINTED CIRCUITRY	34	L	05	64	JPL	MC	8200584		OSE
J	8200587		B	ARTWORK 2.4 KC LEVEL	34	L	07	64	JPL	MC	8200398		OSE
J	8200588		B	MARK MASTER 2.4KC LEVEL	34	L	06	64	JPL	MC	8200398		OSE
J	8200600		F	BLOCKHOUSE ASSY	34	L	07	64	JPL	MC	8200376		OSE
J	8200600		F	BLOCKHOUSE ASSY CC&S	34	L	02	64	JPL	MC	8200621		OSE
J	8200601		C	FRONT PNL ASSY BLK HSE	34	L	06	64	JPL	MC	8200600		OSE
J	8200602		A	PANEL MACHINING	34	L	10	63	JPL	MC	8200601		OSE
D	8200603		C	BLK HSE FRONT PNL W DIAG	34	L	06	64	JPL	MC	8200601		OSE
J	8200604		E	BLK HSE CHASSIS W DIAG	34	L	06	64	JPL	MC	8200600		OSE
J	8200605		D	CHASSIS ASSY BLK HSE	34	L	07	64	JPL	MC	8200600		OSE
D	8200606		B	CHASSIS PLATE BLK HSE	34	L	07	64	MC		8200605		OSE
J	8200607		A	PANEL SIDE BLOCKHOUSE	34	L	10	63	JPL	MC	8200600		OSE
C	8200608		A	TB BLOCKHOUSE ASSY	34	L	10	63	JPL	MC	8200605		OSE
D	8200609		A	HEATSINK ASSY BLK HSE	34	L	06	64	JPL	MC	8200605		OSE
D	8200610		A	CURRENT GENERATOR SCHEM	34	L	06	64	JPL	MC	8200609		OSE
D	8200611			HEATSINK BRKT HEATSINK	34	L	10	63	JPL	MC	8200609		OSE
C	8200612			CONNECTOR BRACK CC&S	34	L	02	63	JPL	MC	8200600		OSE

JPL 1556 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 26 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	DFT CODE	REFERENCE NUMBER
J	8200613		E	BLK HSE LOGIC DIAGRAM	34	L	06	64	JPL	MC	8200600		OSE
D	8200614		C	REAR PANEL ASSY BLK HSE	34	L	06	64	JPL	MC	8200600		OSE
D	8200615		B	REAR PANEL BLOCK HOUSE	34	L	06	64	JPL	MC	8200614		OSE
J	8200616		A	BLOCKHOUSE DWG	34	V	04	63	STL	MC	8200600		OSE
B	8200616	WL	F	BLOCK HOUSE ASSY	34	L	07	64	JPL	MC	8200600		OSE
J	8200617		A	CB8 ASSY COMMAND TYPE A	34	L	10	63	JPL	MC	8200536		OSE
A	8200617	PL	A	CB8 COMMAND TYPE A DRIVR	34	L	10	63	JPL	MC	8200617		OSE
D	8200618			CB8 COMMAND TYPE A SCHEM	34	L	10	63	JPL	MC	8200617		OSE
J	8200619		A	CB8 PC COMMAND TYPE A	34	L	10	63	JPL	MC	8200617		OSE
C	8200620		C	STRIP-IDENTIFICATION	34	L	10	63	JPL	MC	8200390		OSE
C	8200620		C	STRIP-IDENTIFICATION	34	L	10	63	JPL	MC	8200536		OSE
C	8200620		C	STRIP-IDENTIFICATION	34	L	10	63	JPL	MC	8200600		OSE
C	8200620		C	STRIP-IDENTIFICATION	34	L	10	63	JPL	MC	8200660		OSE
J	8200621		B	BLK HSE UNIT ASSY CC&S	34	L	07	64	JPL	MC			OSE
J	8200622		C	BLK HSE UNIT ASSY	34	L	07	64	JPL	MC	8200621		OSE
J	8200623			CB4 ASSY TYPE A OSC	34	L	10	63	JPL	MC	8200536		OSE
A	8200623	PL		CB4 ASSY TYPE A OSC	34	L	10	63	JPL	MC	8200623		OSE
D	8200624			A SQUARE WAVE OSC SCHEM	34	L	10	63	JPL	MC	8200623		OSE
J	8200626			CB4 PRINTED CIRCUITRY	34	L	10	63	JPL	MC	8200623		OSE
J	8200626			CB4 PC TYPE A OSCILLATOR	34	L	10	63	JPL	MC	8200623		OSE
J	8200627		B	MARKING MASTER CB17 ASSY	34	L	10	63	JPL	MC	8200720		OSE
J	8200628		B	CB8 PC INFACE BLK HOUSE	34	L	03	64	JPL	MC	8200638		OSE
J	8200629		A	MARKING MASTER CB5 ASSY	34	L	10	63	JPL	MC	8200563		OSE
J	8200630		A	MARKING MASTER CB2 ASSY	34	L	10	63	JPL	MC	8200557		OSE
J	8200631			MARKING MASTER CB4 ASSY	34	L	10	63	JPL	MC	8200673		OSE
J	8200632		C	CB4 ASSY CLEAR COMMAND	34	L	12	63	JPL	MC	8200600		OSE
A	8200632	PL	B	CB4 CLEAR COMMAND	34	L	10	63	JPL	MC	8200632		OSE
D	8200633		B	CLEAR COMMAND SCHEM	34	L	10	63	JPL	MC	8200632		OSE
J	8200634		B	CB4 PC CLEAR COMMAND	34	L	10	63	JPL	MC	8200632		OSE
J	8200635		D	CB 6 ASSY CURRENT GEN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8200600		OSE
A	8200635	PL	C	CB 6 CURRENT GENERATOR	34	L	07	64	JPL	MC	8200635		OSE
D	8200636		C	CURRENT GEN DRIV SCHEM	34	L	07	64	JPL	MC	8200635		OSE
J	8200637		B	CB6 P CIRCUITRY	34	L	07	64	JPL	MC	8200635		OSE
J	8200638		E	CB8 ASSY BLOCKHOUSE	35	L	02	64	JPL	MC	8200600		OSE
A	8200638	PL	B	CB8 INTERFACE BLKHOUSE	34	L	02	64	JPL	MC	8200638		OSE
D	8200639		C	CB6 BLOCKHOUSE SCHEM	35	L	02	64	JPL	MC	8200638		OSE
J	8200640		A	SYSTEMS POWER SUPPLY ASY	34	L	10	63	JPL	MC	8200376		OSE
J	8200641		B	WIRING DGM	34	L	10	63	JPL	MC	8200640		OSE
J	8200642			PANEL FRONT SYSTEMS PWR	34	L	10	63	JPL	MC	8200640		OSE
J	8200644		C	BLKHSE PWR SUPPLY ASSY	34	L	05	64	JPL	MC	8200376		OSE

JPL 1556 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 27 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8200644		C	BLKHSE PWR SUPPLY ASSY	34	L	10	63	JPL	MC	8200621		OSE
J	8200645		A	CHASSIS ASSY	34	L	10	63	JPL	MC	8200644		OSE
J	8200646		B	PANEL MACHINING & ENGRAV	34	L	05	64	JPL	MC	8200645		OSE
J	8200647		B	REAR PANEL MACHINING	34	L	10	63	JPL	MC	8200645		OSE
D	8200648		A	ANGLE BRACKET CHASSIS	34	L	10	63	JPL	MC	8200645		OSE
D	8200649		A	ANGLE BRACKET CHASSIS	34	L	10	63	JPL	MC	8200645		OSE
D	8200650			CHANNEL BRACKET CHASSIS	34	L	10	63	JPL	MC	8200645		OSE
C	8200651			GUSSET CHASSIS ASSY	34	L	03	63	JPL	MC	8200645		OSE
D	8200652			SIDE FRAME CHASSIS ASSY	34	L	10	63	JPL	MC	8200645		OSE
D	8200653			CB2 BLOCKHOUSE PWR SUP	34	L	10	63	JPL	MC	8200644		OSE
C	8200654			TB CB 2 ASSY PWR	34	L	03	63	JPL	MC	8200653		OSE
D	8200655		D	BLOCKHOUSE PWR SUPPLY	34	L	05	64	JPL	MC	8200644		OSE
J	8200660		E	LOGIC ASSEMBLY	34	L	07	64	JPL	MC	8200376		OSE
J	8200661			FRONT PANEL ASSY LOGIC	34	L	10	63	JPL	MC	8200660		OSE
J	8200662			FRONT PANEL LOGIC CC&S	34	L	10	63	JPL	MC	8200661		OSE
J	8200663		B	REAR PANEL ASSY LOGIC	34	L	12	63	JPL	MC	8200660		OSE
J	8200664		B	REAR PANEL LOGIC CC&S	34	L	12	63	JPL	MC	8200663		OSE
J	8200665		B	CHASSIS ASSY LOGIC CC&S	34	L	10	63	JPL	MC	8200660		OSE
D	8200666		A	CHASSIS MACHINING LOGIC	34	L	10	63	JPL	MC	8200665		OSE
J	8200667		A	PANEL SIDE LOGIC CC&S	34	L	10	63	JPL	MC	8200660		OSE
B	8200669	WL	E	LOGIC CC&S	34	L	07	64	JPL	MC	8200660		OSE
J	8200670		F	LOGIC PNL SCHEMATIC	34	L	07	64	JPL	MC	8200660		OSE
J	8200671		A	CB1 ASSY CC&S LOGIC	34	L	10	63	JPL	MC	8200660		OSE
A	8200671	PL		CB1 CC&S LOGIC	34	L	10	63	JPL	MC	8200671		OSE
D	8200672			CB1 CC&S LOGIC SCHEM	34	L	10	63	JPL	MC	8200671		OSE
J	8200673		A	CB1 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200671		OSE
J	8200674		A	CB2 ASSY LOGIC CC&S	34	L	10	63	JPL	MC	8200660		OSE
A	8200674	PL		CB2 CC&S LOGIC	34	L	10	63	JPL	MC	8200674		OSE
D	8200675			CB2 SCHEM CC&S LOGIC	34	L	10	63	JPL	MC	8200674		OSE
J	8200676		A	CB2 PC LOGIC CC&S	34	L	10	63	JPL	MC	8200674		OSE
J	8200677		C	CB3 ASSY CC&S LOGIC	34	L	02	64	JPL	MC	8200660		OSE
A	8200677	PL	C	CB3	34	L	12	63	JPL	MC	8200677		OSE
D	8200678		C	CB3 CC&S LOGIC SCHEM	34	L	12	63	JPL	MC	8200677		OSE
J	8200679		C	CB3 PC CC&S LOGIC	34	L	12	63	JPL	MC	8200677		OSE
J	8200680		B	CB4 ASSY CC&S LOGIC	34	L	10	63	JPL	MC	8200660		OSE
A	8200680	PL	C	CB4 CC&S LOGIC	34	L	10	63	JPL	MC	8200680		OSE
D	8200681		B	CB4 CC&S LOGIC SCHEM	34	L	10	63	JPL	MC	8200680		OSE
J	8200682		B	CB4 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200680		OSE
J	8200683		A	CB5 ASSY CC&S LOGIC	34	L	10	63	JPL	MC	8200660		OSE
A	8200683	PL		CB5 CC&S LOGIC	34	L	10	63	JPL	MC	8200683		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 28 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	8200684			CB5 CC&S LOGIC SHCEM	34	L	10	63	JPL	MC	8200683		OSE
J	8200685		A	CB5 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200683		OSE
J	8200686		B	CB6 ASSY CC&S LOGIC	34	L	10	63	JPL	MC	8200660		OSE
A	8200686	PL	A	CB6 CC&S LOGIC	34	L	10	63	JPL	MC	8200686		OSE
D	8200687		A	CB6 CC&S LOGIC SCHEM	34	L	10	63	JPL	MC	8200686		OSE
J	8200688		B	CB6 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200686		OSE
J	8200689		B	CB7 ASSY CC&S LOGIC	34	L	12	63	JPL	MC	8200660		OSE
A	8200689	PL	A	CB7 CC&S LOGIC	34	L	10	63	JPL	MC	8200689		OSE
D	8200690		C	CB7 SCHEM CC&S LOGIC	34	L	02	64	JPL	MC	8200689		OSE
J	8200691		A	CB7 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200689		OSE
J	8200695		A	CB9 ASSY LOGIC CC&S	34	L	10	63	JPL	MC	8200660		OSE
A	8200695	PL		CB9 CC&S LOGIC	34	L	10	63	JPL	MC	8200695		OSE
D	8200696			CB9 SCHEM LOGIC CC&S	34	L	10	63	JPL	MC	8200695		OSE
J	8200697		A	CB9 PC LOGIC CC&S	34	L	10	63	JPL	MC	8200695		OSE
J	8200701		C	CB11 ASSY CC&S LOGIC	34	L	12	63	JPL	MC	8200660		OSE
A	8200701	PL	C	CIRCUIT BOARD 11 LOGIC	34	L	12	63	JPL	MC	8200701		OSE
D	8200702		C	CB11 CC&S LOGIC SCHEM	34	L	12	63	JPL	MC	8200701		OSE
J	8200703		B	CB11 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200701		OSE
J	8200704		C	CB12 ASSY CC&S LOGIC	34	L	12	63	JPL	MC	8200660		OSE
A	8200704	PL	C	CIRCUIT BOARD 12 CC&S	34	L	12	63	JPL	MC	8200704		OSE
D	8200705		B	CB12 CC&S LOGIC SCHEM	34	L	12	63	JPL	MC	8200704		OSE
J	8200706		C	CB12 PC CC&S LOGIC	34	L	12	63	JPL	MC	8200704		OSE
J	8200707		D	CB13 ASSY CC&S LOGIC	34	L	12	63	JPL	MC	8200660		OSE
D	8200708		C	CB13 CC&S LOGIC SCHEM	34	L	10	63	JPL	MC	8200707		OSE
J	8200709		A	CB13 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200707		OSE
J	8200710		D	CB14 ASSY CC&S LOGIC	34	L	12	63	JPL	MC	8200660		OSE
D	8200711		C	CB14 CC&S LOGIC SCHEM	34	L	10	63	JPL	MC	8200710		OSE
J	8200712		A	CB14 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200710		OSE
J	8200713		C	CB15 ASSY CC&S LOGIC	34	L	10	63	JPL	MC	8200660		OSE
D	8200714		B	CB15 CC&S LOGIC SCHEM	34	L	10	63	JPL	MC	8200713		OSE
J	8200715		A	CB15 PC CC&S LOGIC	34	L	10	63	JPL	MC	8200713		OSE
J	8200716		B	CB16 ASSY LOGIC CC&S	34	L	10	63	JPL	MC	8200660		OSE
A	8200716	PC	A	CB16 CC&S LOGIC	34	L	10	63	JPL	MC	8200716		OSE
D	8200717		A	CB16 SCHEM CC&S LOGIC	34	L	10	63	JPL	MC	8200716		OSE
J	8200718		B	CB16 PC LOGIC CC&S	34	L	10	63	JPL	MC	8200716		OSE
D	8200719		A	CB17 SCHEM CC&S LOGIC	34	L	10	63	JPL	MC	8200720		OSE
J	8200720		C	CB17 ASSY LOGIC CC&S	34	L	10	63	JPL	MC	8200660		OSE
A	8200720	PL	A	CB17 CC&S LOGIC	34	L	10	63	JPL	MC	8200720		OSE
J	8200721		B	CB17 PC LOGIC CC&S	34	L	10	63	JPL	MC	8200720		OSE
D	8200738		B	BALL VALVE ASSY	34	L	09	64	JPL	MC	8200982		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 29 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DESIG. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	WHO DO	NEXT ASSEMBLY	OFF COL	REFERENCE NUMBER
J	8200742		A	MARKING MASTER CB1 ASSY	34	L	10	63	JPL	MC	8200554		OSE
J	8200743		A	MARKING MASTER CB3 ASSY	34	L	10	63	JPL	MC	8200560		OSE
J	8200744		A	MARKING MASTER CB7 ASSY	34	L	10	63	JPL	MC	8200566		OSE
J	8200745		B	MARKING MASTER CB9 ASSY	34	L	12	63	JPL	MC	8200569		OSE
J	8200746		B	MARKING MASTER CB10 ASSY	34	L	12	63	JPL	MC	8200572		OSE
J	8200747		A	MARKING MASTER CB11 ASSY	34	L	10	63	JPL	MC	8200575		OSE
J	8200748		A	MARKING MASTER CB12 ASSY	34	L	10	63	JPL	MC	8200578		OSE
J	8200749		C	MARK MASTER CB 13 ASSY	34	L	06	64	JPL	MC	8200581		OSE
J	8200750		B	MARKING MASTER CB14 ASSY	34	L	06	64	JPL	MC	8200584		OSE
J	8200751		A	MARKING MASTER CB8 ASSY	34	L	10	63	JPL	MC	8200617		OSE
J	8200752		B	MARKING MASTER CB4 ASSY	34	L	10	63	JPL	MC	8200632		OSE
J	8200753		D	MARKING MASTER CB 6 ASSY	34	L	07	64	JPL	MC	8200635		OSE
J	8200754		C	MARKING MASTER CB8 ASSY	34	L	02	64	JPL	MC	8200638		OSE
J	8200755		C	MARKING MASTER CB 15 ASY	34	L	02	64	JPL	MC	8200392		OSE
J	8200756		A	MARKING MASTER CB1 PC	34	L	10	63	JPL	MC	8200671		OSE
J	8200757		A	MARKING MASTER CB2 ASSY	34	L	10	63	JPL	MC	8200674		OSE
J	8200758		B	MARKING MASTER CB3 ASSY	34	L	10	63	JPL	MC	8200677		OSE
J	8200759		B	MARKING MASTER CB4 ASSY	34	L	10	63	JPL	MC	8200680		OSE
J	8200760		A	MARKING MASTER CB5 ASSY	34	L	10	63	JPL	MC	8200683		OSE
J	8200761		B	MARKING MASTER CB6 ASSY	34	L	10	63	JPL	MC	8200686		OSE
J	8200762		A	MARKING MASTER CB7 ASSY	34	L	10	63	JPL	MC	8200689		OSE
J	8200763		A	MARKING MASTER CB9 ASSY	34	L	10	63	JPL	MC	8200695		OSE
J	8200764		C	MARKING MASTER CB11 ASSY	34	L	12	63	JPL	MC	8200701		OSE
J	8200765		A	MARKING MASTER CB12 ASSY	34	L	10	63	JPL	MC	8200704		OSE
J	8200766		C	MARKING MASTER CB13 ASSY	34	L	12	63	JPL	MC	8200707		OSE
J	8200767		C	MARKING MASTER CB14 ASSY	34	L	12	63	JPL	MC	8200710		OSE
J	8200768		B	MARKING MASTER CB15 ASSY	34	L	10	63	JPL	MC	8200713		OSE
J	8200769		B	MARKING MASTER CB16 ASSY	34	L	10	63	JPL	MC	8200716		OSE
B	8200771	IL	A	TEST SET A/C	34	L	07	64	JPL	MC			OSE
J	8200773		A	WIRE HARNESS CONSOLE #1	34	L	08	64	JPL	MC	8200771		
B	8200773	IL		CONSOLE WIRE & CONN	34	V	05	63	NOR	MC	8200771		OSE
J	8200774			CABLES W1 W2 W5 W6 W7 W8	34	L	09	64	JPL	MC	8200771		OSE
B	8200775	IL	A	GYRO & GYRO ELECTRONICS	34	L	07	64	JPL	MC	8200771		
J	8200776			CHASSIS-MECHANICAL	34	L	07	64	JPL	MC	8200775		
J	8200777		A	SCHEM GYRO & GYRO ELECT	34	L	07	64	JPL	MC	8200775		OSE
B	8200777	IL		GYRO & GYRO EL RACK1	34	V	05	63	NOR	MC	8200771		OSE
B	8200778	IL	A	SUN & CANOPUS TRACKR A/C	34	L	07	64	JPL	MC	8200778		OSE
J	8200779			CHASSIS SUN & CANOPUS	34	L	07	64	JPL	MC	8200778		OSE
J	8200781		A	SCHEM SUN & CANOPUS	34	L	07	64	JPL	MC			OSE
B	8200782	IL	A	CC&S COMMAND AUTOPILOT	34	L	07	64	JPL	MC	8200771		OSE

JPL 1000 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 30 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DESIG. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	WHO DO	NEXT ASSEMBLY	OFF COL	REFERENCE NUMBER
J	8200783			CHASSIS MECHANICAL CC&S	34	L	07	64	JPL	MC	8200782		OSE
J	8200785			SCHEM CC&S COMMAND	34	L	07	64	JPL	MC			OSE
B	8200785	IL		COMMAND DECODER	34	V	05	63	NOR	MC	8200771		OSE
B	8200786	IL	A	400 CYCLE 3 PHASE	34	L	07	64	JPL	MC	8200771		OSE
J	8200787			CHASSIS A/C	34	L	07	64	JPL	MC			OSE
J	8200788		A	SCHEM GYRO POWER SUPPLY	34	V	11	63	NTS	MC	8200785		
B	8200788	IL		RACK-1	34	V	05	63	NOR	MC	8200771		OSE
J	8200795			WIRE HARNESS	34	L	07	64	JPL	MC			OSE
B	8200796	IL	A	SYSTEM MONITOR A/C	34	L	07	64	JPL	MC	8200771		OSE
J	8200797			CHASSIS MECHANICAL	34	L	07	64	JPL	MC	8200796		OSE
J	8200799		A	SCHEM SYSTEMS MONITOR	34	L	07	64	JPL	MC			OSE
B	8200799	IL		SYSTEMS MONITOR	34	L	07	64	JPL	MC	8200771		OSE
B	8200800	IL		TEST POINT MONITOR	34	V	12	63	NTS	MC	8200771		OSE
J	8200801		A	CHASSIS MECHANICAL	34	L	07	64	JPL	MC	8200800		OSE
J	8200810			TEST HOOD DERIVED RATE	34	L	07	64	JPL	MC			OSE
J	8200811			HOOD SQUARE ROOT SENSOR	34	L	07	64	JPL	MC			OSE
J	8200814			TST HOOD SQ ROOT SUN SEN	34	L	07	64	JPL	MC	8200811		OSE
J	8200815			COVER BOT SQ ROOT SENSOR	34	L	07	64	JPL	MC	8200811		OSE
J	8200816			STIMULUS ASY SQ ROOT SEN	34	L	07	64	JPL	MC	8200811		OSE
J	8200877			CONSOLE CANOPUS TRACKER	34	L	08	63	JPL	MC			OSE
D	8200878			REAR PANEL ASSY	34	L	10	63	JPL	MC	8200877		OSE
D	8200879			OSCILLOSCOPE ASSY	34	L	10	63	JPL	MC	8200877		OSE
J	8200880			CANOPUS ASSY	34	L	10	63	JPL	MC	8200877		OSE
J	8200881		A	CANOPUS TRACKER SCHEM	34	L	10	64	JPL	MC	8200888		OSE
J	8200881		A	CANOPUS TRACKER SCHEM	34	L	10	64	JPL	MC	8200887		OSE
J	8200881		A	CANOPUS TRACKER SCHEM	34	L	10	64	JPL	MC	8200880		OSE
J	8200881		A	CANOPUS TRACKER SCHEM	34	L	10	64	JPL	MC	8200886		OSE
J	8200881		A	CANOPUS TRACKER SCHEM	34	L	10	64	JPL	MC	8200885		OSE
A	8200881	PL	A	CANOPUS TRACKER TEST	34	L	10	64	JPL	MC	8200881		
J	8200882			CHASSIS CANOPUS TRACKER	34	L	10	63	JPL	MC	8200880		OSE
J	8200883			PANEL MACHINING & ENGRAV	34	L	10	63	JPL	MC	8200880		OSE
D	8200884			BRKT SIDE CANOPUS TRACKR	34	L	10	63	JPL	MC	8200880		OSE
D	8200885			COMPONENT BD TB1	34	L	10	64	JPL	MC	8200880		OSE
D	8200886		A	COMPONENT BD TB2	34	L	10	64	JPL	MC	8200880		OSE
D	8200887			COMPONENT BD TB3	34	L	10	64	JPL	MC	8200880		OSE
D	8200888		A	COMPONENT BD TB4	34	L	10	64	JPL	MC	8200880		OSE
J	8200889			CANOPUS SIMULATOR	34	L	07	63	JPL	MC			OSE
J	8200890			CB CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200889		OSE
J	8200891			CB1 PC CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200893		OSE
J	8200892			CB2 PC CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200894		OSE

JPL 1000 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 31 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8200893			TB1 CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200890		OSE
J	8200894			TB2 CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200890		OSE
D	8200895		A	SCHEM DIAG OSE SIMULATOR	34	L	05	64	JPL	MC	8200889		OSE
A	8200895	PL		BASE CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200895		OSE
C	8200896			RAIL CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200889		OSE
D	8200897			COVER CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200889		OSE
C	8200898			TUBE OPTICAL SYSTEM	34	L	07	63	JPL	MC	8200899		OSE
C	8200899			OPTICAL TUBE ASSY	34	L	07	63	JPL	MC	9200889		OSE
C	8200900			LAMP RETAINING NUT	34	L	07	63	JPL	MC	8200899		OSE
C	8200901			STUD CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200889		OSE
J	8200902			BASE CANOPUS SIMULATOR	34	L	07	63	JPL	MC	8200889		OSE
J	8200904		A	CB18 CLEAR COMM MONITOR	34	L	10	63	JPL	MC	8200536		OSE
J	8200904		B	CIRCUIT BOARD 18 ASSY	34	L	12	63	JPL	MC	8200600		OSE
A	8200904	PL	A	CB18 CLEAR COMM MONITOR	34	L	10	63	JPL	MC	8200904		OSE
J	8200905		A	CLEAR COMM MONITOR CB18	34	L	10	63	JPL	MC	8200904		OSE
J	8200906		A	CB18 PRINTED CIRCUITRY	34	L	10	63	JPL	MC	8200904		OSE
J	8200907		A	MARKING MASTER CB18 ASSY	34	L	10	63	JPL	MC	8200904		OSE
C	8200908			DIFFUSER & APERTAURE ASY	34	L	07	63	JPL	MC	8200899		OSE
C	8200909			DIFFUSER OPTICAL SYSTEM	34	L	07	63	JPL	MC	8200908		OSE
C	8200910			DISC OPTICAL SYSTEM	34	L	07	63	JPL	MC	8200908		OSE
C	8200911			TUBE APERTURE	34	L	07	63	JPL	MC	8200908		OSE
J	8200912			POWER SUPPLY ASSY	34	L	07	63	JPL	MC	122012		OSE
J	8200913			CHASSIS POWER SUPPLY	34	L	07	63	JPL	MC	8200912		OSE
D	8200914			SCHEM POWER SUPPLY	34	L	07	63	JPL	MC	8200912		OSE
D	8200914			SCHEM POWER SUPPLY	34	L	07	63	JPL	MC	8200916		OSE
A	8200914	PL		IMAGE DISSECTOR TUBE	34	L	07	63	JPL	MC	8200914		OSE
C	8200915			ADAPTER RING	34	L	07	63	JPL	MC	8200912		OSE
D	8200916			RECTIFIER ASSY	34	L	07	63	JPL	MC	8200912		OSE
D	8200917			RECTIFIER CHASSIS	34	L	07	63	JPL	MC	8200916		OSE
D	8200918			HEAT SINK	35	L	07	63	JPL	MC	8200916		OSE
J	8200919		B	SPIDER WELDMENT	34	L	05	64	JPL	MC	8200922		OSE
J	8200920		B	SUPPORT EQUIP PLATE WELD	34	L	05	64	JPL	MC	8200922		OSE
C	8200921		A	PLATE	34	L	05	64	JPL	MC	8200922		OSE
J	8200922		B	FRAME GAS SYS ASSEMBLY	34	L	05	64	JPL	MC			OSE
C	8200973			LENS OPTICAL SYSTEM	34	L	07	63	JPL	MC	8200899		OSE
J	8200974			CARD RACK ASSY	34	L	10	63	JPL	MC	8200600		OSE
J	8200975		A	STAND FRAME GAS SYS	34	L	05	64	JPL	MC	8200922		OSE
J	8200976			FIXTURE WELDNG HP TUBING	34	L	09	63	JPL	MC			OSE
D	8200977		A	BRACKET WELDMENT	34	L	09	64	JPL	MC	8200978		OSE
J	8200978		C	FRAME JET VALVE	34	L	11	64	JPL	MC			OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 32 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	8200979		A	BRACKET WELDMENT	34	L	10	63	JPL	MC	8200978		OSE
J	8200980		A	FIXTURE WELDING	34	L	10	64	JPL	MC			OSE
J	8200981			BODY FILL MANIFOLD	34	L	09	63	JPL	MC	8200982		OSE
J	8200982		B	FILL MANIFOLD ASSEMBLY	34	L	04	65	JPL	MC			OSE
D	8200983			FITTING RETAINER	34	L	09	63	JPL	MC	8200982		OSE
B	8200984			PLUG	34	L	09	63	JPL	MC	8200981		OSE
J	8200985		B	CONTROL PANEL ASSY	34	L	10	64	JPL	MC			OSE
J	8200986			PANEL MACHIN & ENGRAVING	34	L	08	63	JPL	MC	8200985		OSE
D	8200987		A	CHASSIS CANOPUS TRACKER	35	L	02	64	JPL	MC	8200985		OSE
J	8200988		A	CONTROL PANEL SCHEM	34	L	02	64	JPL	MC	8200985		OSE
J	8200990		A	PWB ASSY #1 CDS	34	L	06	64	JPL	MC	8200993		OSE
J	8200991			PRINTED WIRING BOARD #1	34	L	10	63	JPL	MC	8200990		OSE
J	8200992		A	SCHEMATIC DIAG CDS	34	L	06	64	JPL	MC	8200990		OSE
A	8200992	PL	A	PW ASSY #1 CDS INTERFACE	34	L	06	64	JPL	MC	8200992		OSE
J	8200993		A	CDS JUNCTION BOX ASSY	34	L	07	64	JPL	MC	8200376		OSE
J	8200994	CD		CDS JUNCTION BOX	34	L	01	64	JPL	MC	8200993		OSE
D	8200995			BRACKET STRAP MOUNTING	34	L	01	64	JPL	MC	8200993		OSE
D	8200996			STRAP CONNECTOR MOUNTING	34	L	01	64	JPL	MC	8200993		OSE
D	8200997			STRAP	34	L	01	64	JPL	MC	8200993		OSE
D	8200998			STRAD TERMINAL	35	L	01	64	JPL	MC	8200993		OSE
D	8200999		A	COMPONENT BD TB 2 ASSY	34	L	07	64	JPL	MC	8200993		OSE
D	8201000		A	COMPONENT BD TB3 ASSY	34	L	07	64	JPL	MC	8200993		OSE
C	8201001			COMPONENT BOARD TB3-A	34	L	01	64	JPL	MC	8200993		OSE
J	8201002		B	HANDLING & SHIPPING	34	L	11	64	JPL	MC			OSE
C	8201004			BRACKET CONNECTOR MTG	34	L	10	63	JPL	MC	8200978		OSE
C	8201005			BRACKET	34	L	05	64	JPL	MC	8200922		OSE
J	8201008		A	FIXTURE MOUNTING	34	L	08	64	JPL	MC	8201002		OSE
D	8201009			COMPONENT BD TB-3	35	L	02	64	JPL	MC	8201037		OSE
J	8201010		A	YOKE FRAME SUPPORT	34	L	09	64	JPL	MC	8201008		OSE
D	8201011		A	CLEVIS WELDMENT	34	L	09	64	JPL	MC	8201008		OSE
B	8201013	WL		CONTROL PNL CANOPUS SIM	35	L	02	64	JPL	MC	8200985		OSE
J	8201014		A	SHIPPING CONTAINER ATT	34	L	09	64	JPL	MC			OSE
J	8201015		A	FRAME INSIDE CONTAINER	34	L	09	64	JPL	MC	8201014		OSE
D	8201016		A	BASE INSIDE CONTAINER	34	L	09	64	JPL	MC	8201014		OSE
D	8201017		A	COVER INSIDE CONTAINER	34	L	09	64	JPL	MC	8201014		OSE
D	8201018		A	SIDE PANEL LOWER INSIDE	34	L	09	64	JPL	MC	8201014		OSE
D	8201019		A	SIDE PANEL UPPER INSIDE	34	L	09	64	JPL	MC	8201014		OSE
C	8201020		A	BRACE INSIDE CONTAINER	34	L	09	64	JPL	MC	8201014		OSE
D	8201021		A	SUPPORT WELDMENT	34	L	09	64	JPL	MC	8201014		OSE
D	8201022		A	SUPPORT WELDMENT	34	L	09	64	JPL	MC	8201014		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 33 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8201023		A	BOX DESSICANT ASSY	34	L	09	64	JPL	MC	8201014		OSE
J	8201024		A	FRAME OUTSIDE CONTAINER	34	L	09	64	JPL	MC	8201014		OSE
D	8201025		A	BASE OUTSIDE CONTAINER	34	L	09	64	JPL	MC	8201014		OSE
D	8201026		A	COVER OUTSIDE CONTAINER	34	L	09	64	JPL	MC	8201014		OSE
D	8201027		A	SIDE PANELS OUTSIDE CONT	34	L	09	64	JPL	MC	8201014		OSE
C	8201028		A	BRACE OUTSIDE CONTAINER	34	L	09	64	JPL	MC	8201014		OSE
J	8201029			CB ASSEMBLY	34	L	03	64	JPL	MC	8200600		OSE
J	8201030			CB PC UPDATE MONITOR	34	L	03	64	JPL	MC	8201029		OSE
J	8201031			SCHEM DIAG UPDATE MON	34	L	03	64	JPL	MC	8201029		OSE
A	8201031	PL		CB UPDATE MON CC&S	34	L	03	64	JPL	MC	8201031		OSE
J	8201032			MARKING MASTER CB	34	L	03	64	JPL	MC	8201029		OSE
C	8201034			COMPONENT BOARD TB2-A	34	L	01	64	JPL	MC	8200993		OSE
C	8201035			COMPONENT BD TB 4	35	L	02	64	JPL	MC	8200985		OSE
D	8201036			TRIMPOT BOARD ASSY A1	35	L	02	64	JPL	MC	8201037		OSE
D	8201037			COMPONENT&TRIMPOT BD ASY	35	L	02	64	JPL	MC	8200985		OSE
D	8201038			COMPONENT BD TB3	35	L	02	64	JPL	MC	8200985		OSE
J	8201039			COMPONENT BOARD TB5	35	L	02	64	JPL	MC	8200985		OSE
J	8201040			CB ASSY INTERFACE 3	34	L	06	64	JPL	MC	8200536		OSE
B	8201041			SCHEM DIAG INTERFACE 3	34	L	06	64	JPL	MC	8201040		OSE
J	8201042			P CIRCUITRY INTERFACE 3	34	L	06	64	JPL	MC	8201040		OSE
C	8201043			SUPPORT-SWITCH CANOPUS	34	L	12	64	JPL	MC			OSE
J	8201101			ATT CONT ASSEMBLY	34	L	08	64	JPL	MC	8201100		OSE
J	8201102			ATT CONTROL ASSY	34	L	08	64	JPL	MC	8201100		OSE
D	8201103			RUNNING TIME PNL ASSY	34	L	06	64	JPL	MC	8201200		OSE
J	8201105			CARD FILE ASSEMBLY	34	L	08	64	JPL	MC	8201120		OSE
J	8201105			CARD FILE ASSEMBLY	34	L	08	64	JPL	MC	8201150		OSE
C	8201106			DIFFERENTIAL AMPL ASSY	34	L	08	64	JPL	MC	8201120		OSE
C	8201106			DIFFERENTIAL AMPL ASSY	34	L	08	64	JPL	MC	8201150		OSE
J	8201108			GYRO MONITOR PNL ASSY	34	L	07	64	JPL	MC	8201101		OSE
J	8201109			PANEL FRONT GYRO MON PNL	34	L	07	64	JPL	MC	8201108		OSE
J	8201110			CHANNEL GYRO MON PNL	34	L	07	64	JPL	MC	8201108		OSE
D	8201111			TB 1 ASSY GYRO MONITOR	34	L	07	64	JPL	MC	8201108		OSE
D	8201112			TB 2 ASSY GYRO MON PNL	34	L	07	64	JPL	MC	8201108		OSE
C	8201113			BD CAPACITOR MOUNTING	34	L	07	64	JPL	MC	8201108		OSE
J	8201114		A	SCHEMATIC DIAG GYRO MON	34	L	07	64	JPL	MC	8201108		OSE
D	8201116			PWIR ASSY GYRO MON PNL	34	L	07	64	JPL	MC	8201108		OSE
J	8201120			SYSTEM ANALYSIS ASSEMBLY	34	L	08	64	JPL	MC	8201101		OSE
J	8201121			PNL FRONT SYS ANALYSIS	34	L	08	64	JPL	MC	8201120		OSE
J	8201122			CHASSIS SYS ANALYSIS A3	34	L	08	64	JPL	MC	8201120		OSE
A	8201123	PL		TERMINAL BOARD ASSY 1	34	L	08	64	JPL	MC	8201123		OSE

JPL 1500 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 34 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	8201123			TERMINAL BOARD ASSY 1	34	L	08	64	JPL	MC	8201120		OSE
D	8201124			TERMINAL BOARD ASSY 2	34	L	08	64	JPL	MC	8201120		OSE
C	8201125			TERMINAL BOARD ASSY 3	34	L	08	64	JPL	MC	8201120		OSE
D	8201126			TERMINAL BOARD ASSY 4	34	L	08	64	JPL	MC	8201120		OSE
D	8201127			MOUNTING BRACKET	34	L	08	64	JPL	MC	8201120		OSE
D	8201128			RELAY MOUNT ASSY 1	34	L	08	64	JPL	MC	8201120		OSE
D	8201129			RELAY MOUNT ASSY 2	34	L	08	64	JPL	MC	8201120		OSE
J	8201130		P	WIR ASY 13 SYS ANALYSIS	34	L	07	64	JPL	MC	8201120		OSE
J	8201131		A	ARTWORK WB13	34	L	08	64	JPL	MC	8201130		OSE
A	8201132	PL		PWIR ASSY 13	34	L	07	64	JPL	MC	8201132		OSE
D	8201132			SCHEM PWIR ASSY 13 SYS	34	L	07	64	JPL	MC	8201130		OSE
J	8201133		A	P WIRING ASSY 14	34	L	08	64	JPL	MC	8201120		OSE
J	8201134			ARTWORK WB14 SYS ANALYS	34	L	07	64	JPL	MC	8201133		OSE
D	8201135		A	SCHEMATIC DIAG PWIR ASY	34	L	08	64	JPL	MC	8201133		OSE
A	8201135	PL		PWIR ASSEMBLY 14	34	L	07	64	JPL	MC	8201135		OSE
J	8201136			PRINT WIRE 18	34	L	07	64	JPL	MC	8201120		OSE
J	8201137			ARTWORK WB 18	34	L	07	64	JPL	MC	8201136		OSE
D	8201138			SCHEM PW 18	34	L	07	64	JPL	MC	8201136		OSE
A	8201138			PW 18 SYSTEM ANALYSIS	34	L	07	64	JPL	MC	8201138		OSE
J	8201139			PWIR ASSY 1 POS VOLTAGE	34	L	07	64	JPL	MC	8201120		OSE
J	8201140			ARTWORK PWIR ASSEMBLY 1	34	L	07	64	JPL	MC	8201139		OSE
J	8201140			ARTWORK PWIR ASSEMBLY 1	34	L	07	64	JPL	MC	8201142		OSE
A	8201141	PL		PWIR ASSEMBLY 1	34	L	07	64	JPL	MC	8201141		OSE
D	8201141			SCHEMATIC PWIR ASSY 1	34	L	07	64	JPL	MC	8201139		OSE
J	8201142			PWIR ASSY 4 POS VOLTAGE	34	L	07	64	JPL	MC	8201120		OSE
A	8201143	PL		PWIR ASSEMBLY 4	34	L	07	64	JPL	MC	8201143		OSE
D	8201143			SCHEMATIC PWIR ASSY 4	34	L	07	64	JPL	MC	8201142		OSE
J	8201144			P WIR ASSY 7 NEG VOLTAGE	31	L	08	64	JPL	MC	8201120		OSE
A	8201145	PL		P WIRING ASSY 7	31	L	08	64	JPL	MC	8201145		OSE
D	8201145			SCHM DIAG P WIRING ASSY 7	31	L	08	64	JPL	MC	8201144		OSE
J	8201146			P WIR ASY 10 NEG VOLTAGE	31	L	08	64	JPL	MC	8201120		OSE
A	8201147	PL		P WIRING ASSY 10	31	L	03	64	JPL	MC	8201147		OSE
D	8201147			SCHM DIAG P WIR ASSY 10	31	L	08	64	JPL	MC	8201146		OSE
J	8201148			SYS ANAL PANEL SCHEM	34	L	05	64	JPL	MC	8201120		OSE
J	8201150			SUN AND CANOPUS ACQ ASSY	34	L	08	64	JPL	MC	8201101		OSE
J	8201151			PNL DETAIL SUN&CANOPUS	31	L	08	64	JPL	MC	8201150		OSE
J	8201152			CHASSIS SUN&CANOPUS ACQ	34	L	07	64	JPL	MC	8201150		OSE
D	8201153		A	TERMINAL BD ASSY 1	34	L	12	64	JPL	MC	8201150		OSE
D	8201155			TB ASSY 2 SUN & CANOPUS	34	L	07	64	JPL	MC	8201150		OSE
D	8201157			TERMINAL BOARD ASSY 3	34	L	07	64	JPL	MC	8201150		OSE

JPL 1500 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 35 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	8201159			FIXTURE RELAY MOUNTING	34	L	07	64	JPL	MC	8201150		OSE
J	8201160		A	P & WIRING ASSY 13	34	L	08	64	JPL	MC	8201150		OSE
J	8201161		A	ARTWORK WB 13	34	L	08	64	JPL	MC	8201160		OSE
A	8201162	PL		PW 13 SUN & CANOPUS	34	L	07	64	JPL	MC	8201162		OSE
D	8201162			SCHEM PW 13	34	L	07	64	JPL	MC	8201160		OSE
J	8201163			P WIRING ASSY 4	34	L	08	64	JPL	MC	8201150		OSE
J	8201164		A	ARTWORK WB 4 SUN & CAN	34	L	08	64	JPL	MC	8201163		OSE
A	8201165	PL		PWIR ASSEMBLY 4	34	L	07	64	JPL	MC	8201165		OSE
D	8201165			SCHEM PWIR ASSY 4	34	L	07	64	JPL	MC	8201163		OSE
J	8201166			PWIR ASY5 SUN&CANOPUS	34	L	07	64	JPL	MC	8201150		OSE
J	8201167			ARTWORK WB5 SUN&CANOPUS	34	L	07	64	JPL	MC	8201166		OSE
A	8201168	PL		PW 5 SUN & CANOPUS AQUIS	34	L	07	64	JPL	MC	8201168		OSE
D	8201168			SCHEM PWIR ASSY 5	34	L	07	64	JPL	MC	8201166		OSE
J	8201169			PWIR ASSEMBLY C	34	L	07	64	JPL	MC	8201150		OSE
J	8201170		A	ARTWORK WBO	34	L	08	64	JPL	MC	8201169		OSE
D	8201171		A	SCHEMATIC DIAG P W ASSY	34	L	08	64	JPL	MC	8201169		OSE
A	8201171	PL	A	PRINTED W ASSY C	34	L	08	64	JPL	MC	8201171		OSE
J	8201172			PWIR ASSY 3 SUN&CANOPUS	34	L	07	64	JPL	MC	8201150		OSE
J	8201173			ARTWORK WB3 SUN&CANOPUS	34	L	07	64	JPL	MC	8201172		OSE
D	8201174			SCHEMATIC PWIR ASSY 3	34	L	07	64	JPL	MC	8201172		OSE
	8201174	PL		PWIR ASSY 3	34	L	07	64	JPL	MC	8201174		OSE
J	8201178		A	SUN & CANOPUS SCHEMATIC	34	L	12	64	JPL	MC	8201150		OSE
J	8201180			ATT CONT 125VDC PWR SUP	34	L	06	64	JPL	MC	8201101		OSE
J	8201180			ATT CONT 125VDC PWR SUP	34	L	06	64	JPL	MC	8201102		OSE
J	8201181			PNL ATTITUDE CONTROL	34	L	06	64	JPL	MC	8201180		OSE
D	8201182			CHANNEL MOUNTING	34	L	06	64	JPL	MC	8201180		OSE
C	8201183			ANGLE CONN MOUNTING	34	L	06	64	JPL	MC	8201180		OSE
C	8201184			ANGLE RELAY MOUNTING	34	L	06	64	JPL	MC	8201180		OSE
C	8201185			TB 1 ASSY ATTITUDE	34	L	06	64	JPL	MC	8201180		OSE
C	8201187			TERMINAL BD 2 ASSY	34	L	06	64	JPL	MC	8201180		OSE
C	8201188			125V PWR SUP ASSY SCHEM	34	L	05	64	JPL	MC	8201180		OSE
J	8201190			CONN PNL ASSY ATT CONT	34	L	07	64	JPL	MC	8201101		OSE
J	8201191			CONN PNL ATT CONT 10TRC1	34	L	07	64	JPL	MC	8201190		OSE
J	8201192			SELECTORS CHANNEL	34	L	06	64	JPL	MC	8201101		OSE
J	8201193			PANEL	34	L	06	64	JPL	MC	8201192		OSE
D	8201194			CONNECTOR MOUNTING BRKT	34	L	06	64	JPL	MC	8201192		OSE
D	8201195		A	RECORDER CHANNEL SCHEM	34	L	06	64	JPL	MC	8201192		OSE
J	8201198			CONN PNL ASSY ATT CONT	34	L	07	64	JPL	MC	8201102		OSE
J	8201199			CONN PNL ATT CONTROL	34	L	07	64	JPL	MC	8201198		OSE
J	8201201			GYRO LINE AMPLIFIER ASSY	31	L	08	64	JPL	MC	8201200		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 36 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8201202			SHELL ASSY GYRO LINE AMP	31	L	08	64	JPL	MC	8201201		OSE
D	8201203			REAR COVER ASSY GYRO ASY	31	L	08	64	JPL	MC	8201201		OSE
D	8201204			FRONT COVER GYRO LINE	31	L	08	64	JPL	MC	8201201		OSE
D	8201205		D	GYRO MONITOR LINE SCHEM	34	L	09	64	JPL	MC	8201201		OSE
J	8201206			CARD FILE ASSY GYRO LINE	31	L	08	64	JPL	MC	8201201		OSE
D	8201208			MTG PLATE ASSY GYRO LINE	31	L	08	64	JPL	MC	8201201		OSE
J	8201209		A	PWIRING ASSY 1	34	L	09	64	JPL	MC	8201201		OSE
J	8201210		A	ARTWORK WB1 GYRO LINE	34	L	09	64	JPL	MC	8201209		OSE
D	8201211		A	SCHEMATIC DIAG PW ASSY	34	L	09	64	JPL	MC	8201209		OSE
A	8201211	PL	A	P WIRING ASSY 1	31	L	08	64	JPL	MC	8201211		OSE
D	8201211			SCHEMATIC PWIR ASSY 1	34	L	07	64	JPL	MC	8201209		OSE
D	8201212			ASY EARTH DET COVER	34	L	06	64	JPL	MC	8201200		OSE
D	8201213			COVER BODY EARTH DET	34	L	06	64	JPL	MC	8201212		OSE
D	8201214			END PLATE EARTH DETECTOR	34	L	06	64	JPL	MC	8201212		OSE
C	8201215			SIDE PLATE EARTH DET	34	L	06	64	JPL	MC	8201212		OSE
C	8201216			SCREW EARTH DET COVER	34	L	06	64	JPL	MC	8201212		OSE
B	8201217			SEAL EARTH DET COVER	34	L	06	64	JPL	MC	8201212		OSE
C	8201218			LIGHT SOURCE EARTH DET	34	L	12	64	JPL	MC	8201212		OSE
C	8201220			OPTICAL TUBE ASSY	34	L	12	64	JPL	MC	8201200		OSE
C	8201221			LAMP HOLDER ASSY	34	L	12	64	JPL	MC	8201220		OSE
C	8201222			APERTURE DISK CANOPUS	34	L	12	64	JPL	MC	8201221		OSE
C	8201223			HOLDER LAMP & APERTURE	34	L	12	64	JPL	MC	8201221		OSE
B	8201224			LAMP BASE ASSY	34	L	12	64	JPL	MC	8201221		OSE
C	8201225			LAMP BASE	34	L	12	64	JPL	MC	8201224		OSE
C	8201225			LAMP BASE	34	L	12	64	JPL	MC	8201231		OSE
B	8201226			LENS CANOPUS SIMULATOR	34	L	12	64	JPL	MC	8201220		OSE
C	8201227			TUBE OPTICAL SYSTEM	34	L	12	64	JPL	MC	8201220		OSE
C	8201230			LIGHT SOURCE ASSY	34	L	12	64	JPL	MC	8201200		OSE
B	8201231			LAMP BASE ASSY	34	L	12	64	JPL	MC	8201230		OSE
C	8201232			REFLECTOR LIGHT SOURCE	34	L	12	64	JPL	MC	8201230		OSE
J	8201237			PRESSURE SWITCH J BOX	31	L	08	64	JPL	MC	8201200		OSE
D	8201238			MANIFOLD 4 UNIT PRESSURE	34	L	08	64	JPL	MC	8201247		OSE
B	8201239			UNION PRESSURE SWITCH	34	L	08	64	JPL	MC	8201237		OSE
B	8201239			UNION PRESSURE SWITCH	34	L	08	64	JPL	MC	8201247		OSE
B	8201240			90 ELBOW PRESSURE SWITCH	34	L	08	64	JPL	MC	8201237		OSE
B	8201240			90 ELBOW PRESSURE SWITCH	34	L	08	64	JPL	MC	8201247		OSE
B	8201241			TEE PRESSURE SWITCH SYS	34	L	08	64	JPL	MC	8201237		OSE
B	8201241			TEE PRESSURE SWITCH SYS	34	L	08	64	JPL	MC	8201247		OSE
B	8201242			NIPPLE PRESSURE SWITCH	34	L	12	64	JPL	MC	8201247		OSE
B	8201242			NIPPLE PRESSURE SWITCH	34	L	12	64	JPL	MC	8201237		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 37 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	SPT CSL	REFERENCE NUMBER
B	8201243			CHECK VALVE PRESSURE	34	L	08	64	JPL	MC	8201237		OSE
B	8201243			CHECK VALVE PRESSURE	34	L	08	64	JPL	MC	8201247		OSE
D	8201244			CHASSIS PRESSURE SWITCH	34	L	08	64	JPL	MC	8201237		OSE
D	8201245			MANIFOLD 2 UNIT PRESSURE	34	L	08	64	JPL	MC	8201237		OSE
C	8201246			SCHEMATIC DIAG 107A2	34	L	08	64	JPL	MC	8201237		OSE
J	8201247			PRESSURE SWITCH J-BOX	31	L	08	64	JPL	MC	8201200		OSE
D	8201248			CHASSIS PRESSURE SWITCH	34	L	08	64	JPL	MC	8201247		OSE
C	8201249			SCHEMATIC DIAG 107A1	34	L	08	64	JPL	MC	8201247		OSE
B	8201250			W HARNESS A/C CSL 107RC1	34	L	05	64	JPL	MC	8201101		OSE
B	8201251			CABLE ASSY 107WR3	34	L	07	64	JPL	MC	8201101		OSE
B	8201252			CABLE ASSY 107WR6	34	L	07	64	JPL	MC	8201102		OSE
B	8201253		A	CABLE ASSY 107WR7	34	L	10	64	JPL	MC	8201102		OSE
B	8201254		A	CABLE ASSY 107WR8	34	L	10	64	JPL	MC	8201101		OSE
B	8201254		A	CABLE ASSY 107WR8	34	L	10	64	JPL	MC	8201102		OSE
B	8201255			CABLE ASSY 107WR2	34	L	07	64	JPL	MC	8201101		OSE
B	8201256			CABLE ASSY 107WR5	34	L	07	64	JPL	MC	8201102		OSE
J	8201257			STANDARD RACK ASSEMBLY	31	L	08	64	JPL	MC	8201101		OSE
J	8201257			STANDARD RACK ASSEMBLY	31	L	08	64	JPL	MC	8201102		OSE
D	8201260			CABLE CLAMP STRIP	34	L	07	64	JPL	MC	8201101		OSE
D	8201261			BLOWER CABLE ASSY 107WR1	34	L	07	64	JPL	MC	8201101		OSE
J	8201262		A	FAN PLATE ASSEMBLY	31	L	08	64	JPL	MC	8201101		OSE
J	8201262		A	FAN PLATE ASSEMBLY	31	L	08	64	JPL	MC	8201102		OSE
D	8201265			BLOWER CABLE ASSY 107WR4	34	L	07	64	JPL	MC	8201102		OSE
J	8201268			RELAY BOX ASSEMBLY	34	L	07	64	JPL	MC	8201101		OSE
J	8201268			RELAY BOX ASSEMBLY	34	L	07	64	JPL	MC	8201102		OSE
D	8201270			CONSOLE DUCTING ASSY	34	L	07	64	JPL	MC	8201257		OSE
D	8201280			ARTWORK WB GYRO MONITOR	34	L	07	64	JPL	MC	8201116		OSE
C	8201300			ANGLE TUBE SUPPORT ASY	34	L	08	64	JPL	MC	8200978		OSE
C	8201302			ANGLE TUBE SUPPORT ASY	34	L	08	64	JPL	MC	8200978		OSE
B	8201304			BRACKET CIRCUIT BREAKER	34	L	07	64	JPL	MC	8200621		OSE
D	8201305			BRACKET RELAY	34	L	07	64	JPL	MC	8200605		OSE
D	8201342			FIXTURE WELDING	34	L	08	64	JPL	MC			OSE
C	8201343			WELD FIXTURE	34	L	08	64	JPL	MC			OSE
C	8201354			PLATE SPACER	34	L	08	64	JPL	MC	4200978		OSE
C	8201355			ANGLE TUBE SUPPORT ASSY	34	L	08	64	JPL	MC	4200978		OSE
J	8201365			WELDING FIXTURE	34	L	10	64	JPL	MC	8200980		OSE
C	8201366			BLOCK HINGE SUPPORT	34	L	08	64	JPL	MC	8200978		OSE
C	8201367			ANGLE	34	L	08	64	JPL	MC	8200978		OSE
B	8201395			SPACER	34	L	08	64	JPL	MC	8201008		OSE
B	8201395			SPACER	34	L	08	64	JPL	MC	8201396		OSE

JPL 1500 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 38 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	SPT CSL	REFERENCE NUMBER
J	8201396		A	ATTITUDE CONTROL	34	L	11	64	JPL	MC	4201381		OSE
C	8201415			GAUGE WELD FIXTURE	34	L	10	64	JPL	MC	8200980		OSE
C	8201416			BRACKET WELD FIXTURE	34	L	10	64	JPL	MC	8200980		OSE
C	8201417			BRACE WELD FIXTURE	34	L	10	64	JPL	MC	8200980		OSE
C	8201418			STIFFNER WELD FXTURE	34	L	10	64	JPL	MC	8200980		OSE
C	8201419			BALL STAINLESS STEEL	34	L	09	64	JPL	MC	8200738		OSE
J	8201453		A	COVER PROTECTIVE SOLAR	34	L	09	64	JPL	MC	8201396		OSE
J	8300008			CG LOCATIONS SHIPPING	35	L	11	63	JPL	MC	8100215		OSE
J	8400059			BOX 43-01	34	L	10	63	JPL	MC	8400074		OSE
J	8400060			SCHEM WIRING DGM	34	L	10	63	JPL	MC	8400074		OSE
C	8400062		A	FUNCTIONAL BLOCK DIAG	34	L	11	64	JPL	MC			OSE
C	8400063			INSULATOR	34	L	04	64	JPL	MC	8400236		OSE
D	8400064			TOP COVER ASSY	34	L	10	63	JPL	MC	8400074		OSE
D	8400065			BRACKET #1 HOLD DOWN	34	L	10	63	JPL	MC	8400064		OSE
D	8400066			BRACKET #2 HOLD DOWN	34	L	10	63	JPL	MC	8400064		OSE
D	8400067			PLATE TOP COVER	34	L	10	63	JPL	MC	8400064		OSE
D	8400068			TEST POINT PLATE ASSY	34	L	10	63	JPL	MC	8400074		OSE
D	8400069			PLATE BOTTOM COVER	34	L	10	63	JPL	MC	8400074		OSE
J	8400070			PLATE CHASSIS	34	L	10	63	JPL	MC	8400074		OSE
D	8400071			GASKET TOP COVER ASSY	34	L	10	63	JPL	MC	8400074		OSE
D	8400072			GASKET BOTTOM COVER	34	L	10	63	JPL	MC	8400074		OSE
C	8400073			GASKET TEST POINT PLATE	34	L	10	63	JPL	MC	8400074		OSE
J	8400074		A	AC COND ASSY 43-01	34	L	05	64	JPL	MC	8902515		OSE
C	8400076			FUNCTIONAL BLOCK DIAGRAM	34	L	06	64	JPL	MC			OSE
D	8400079			CELL SPACER	34	L	12	63	JPL	MC	8400078		
C	8400081			HANDLE P-CONTACT	34	L	12	63	JPL	MC	8400080		
C	8400082			BLOCK P-CONTACT	34	L	12	63	JPL	MC	8400080		
J	8400083			P-CONDUCTR SOLDERING FIX	34	L	08	63	JPL	MC			OSE
J	8400093			SUBMODULE ELECTRICAL	34	L	12	63	JPL	MC	8400086		
I	8400096			TEST FIXTURE	34	L	08	63	JPL	MC			OSE
D	8400097			SUPPORT SUB MODULE	34	L	12	63	JPL	MC	8400101		
J	8400099			CHECK FIXT SUBMODULE ASY	34	L	09	63	JPL	MC			OSE
D	8400100			CLAMP P SOLDERING FIXTUR	34	L	12	63	JPL	MC	8400083		
J	8400101			FIXTURE ASSY	34	L	08	63	JPL	MC			OSE
D	8400102			BASE SUBMODULE FILTER	34	L	08	63	JPL	MC	8400101		OSE
D	8400103			SHAFT	34	L	08	63	JPL	MC	8400101		OSE
C	8400104			VARIABLE LOAD BOX SCHEM	34	L	09	63	JPL	MC			OSE
D	8400105			SOLAR TEMPERATURE METER	34	L	10	63	JPL	MC			OSE
A	8400105	PL		COLOR TEMPERATURE METER	34	L	10	63	JPL	MC	8400105		OSE
C	8400106			HOLDING FIXTURE	32	L	09	63	JPL	MC			OSE

JPL 1500 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 39 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8400107		A	SOLDER BOAT ASSY	34	L	11	63	JPL	MC			OSE
D	8400108			BUS BAR TAB BENDING TOOL	34	L	09	63	JPL	MC			OSE
J	8400109		A	P WIRING BD ASSY #51062	34	L	04	64	JPL	MC	8400074		OSE
D	8400110		A	SCHEM PWB ASSY 51062-1A	34	L	05	64	JPL	MC	8400109		OSE
A	8400110	PL		PRINTED WIR BD 51062-1A	34	L	12	63	JPL	MC	8400110		OSE
J	8400111		B	PW BOARD ASSY #51062-1B	34	L	10	64	JPL	MC	8400074		OSE
D	8400112		A	SCHEM PR W BD ASY #51062	34	L	05	64	JPL	MC	8400111		OSE
A	8400112	PL	A	PWB ASSY 51062-1B	34	L	12	64	JPL	MC	8400112		OSE
J	8400113		A	P WIRING BD #51062-1A	34	L	04	64	JPL	MC	8400378		OSE
J	8400114		A	P WIRING ASSY #8463-1	34	L	04	64	JPL	MC	8400147		OSE
D	8400115		A	SCHEM PB 8463-1	34	L	05	64	JPL	MC	8400114		OSE
A	8400115	PL		PRINTED WIRING BOARD	34	L	12	63	JPL	MC	8400115		OSE
J	8400116		A	P WIRING BD #8463-1	34	L	04	64	JPL	MC	8400380		OSE
J	8400117		A	P WIRING ASSY #191262-1	34	L	04	64	JPL	MC	8400161		OSE
C	8400118			SCHEM PW191262-1	34	L	03	64	JPL	MC	8400117		OSE
A	8400118			PW191262-1	34	L	03	64	JPL	MC	8400118		OSE
J	8400119		A	P WIRING BD #191262-1	34	L	04	64	JPL	MC	8400381		OSE
J	8400120		A	P WIRING ASSY #14363-1	34	L	04	64	JPL	MC	8400147		OSE
J	8400121		A	P WIRING BD #14363-1	34	L	04	64	JPL	MC	8400382		OSE
J	8400122		B	PW ASSY #8163-1	34	L	12	64	JPL	MC	8400147		OSE
J	8400122		B	PW ASSY #8163-1	34	L	12	64	JPL	MC	8400354		OSE
D	8400123		A	SCHEMATIC PB 8163-1	34	L	05	64	JPL	MC	8400122		OSE
A	8400123	PL		PRINTED WIRING ASSY	34	L	10	63	JPL	MC	8400123		OSE
J	8400124		A	PRINTED WIRING BD #8163	34	L	04	64	JPL	MC	8400383		OSE
J	8400125		A	P WIRING ASSY #151162-1	34	L	04	64	JPL	MC	8400197		OSE
D	8400126		A	SCHEMATIC PWB 151162-1	34	L	05	64	JPL	MC	8400125		OSE
4	8400127		A	P WIRING BD #151162-1	34	L	04	64	JPL	MC	8400384		OSE
J	8400128		A	P WIRING ASSY #19463-1	34	L	04	64	JPL	MC	8400147		OSE
D	8400129		A	SCHEMATIC PWB ASY19463-1	34	L	05	64	JPL	MC	8400128		OSE
A	8400129	PL		P WIR ASSY 19463-1	34	L	03	64	JPL	MC	8400129		OSE
J	8400130		A	P WIRING BOARD #19463-1	34	L	04	64	JPL	MC	8400385		OSE
J	8400131		A	P WIRING ASSY #3163-1	34	L	04	64	JPL	MC	8400147		OSE
D	8400132		A	SCHEMATIC PWB ASSY3163-1	34	L	05	64	JPL	MC	8400131		OSE
A	8400132	PL		PRINTED WIRING ASSY	34	L	11	63	JPL	MC	8400132		OSE
J	8400133		A	PRINTED WIRING BD #3163	34	L	04	64	JPL	MC	8400386		OSE
J	8400134		B	PWIR ASSY #5163-1	34	L	11	64	JPL	MC	8400161		OSE
D	8400135		A	PWIR ASSY SCHEMATIC	34	L	11	64	JPL	MC	8400134		OSE
A	8400135	PL		INTERLOCK SUBASY 5163-1	34	L	03	64	JPL	MC	8400135		OSE
J	8400136		B	PWIR BD #5163-1	34	L	11	64	JPL	MC	8400387		OSE
J	8400137		A	P WIRING ASSY #221262-1	34	L	04	64	JPL	MC	8400161		OSE

JPL 1000 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 40 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8400138		A	SCHEM DIAG PRINTED W BD	34	L	05	64	JPL	MC	8400137		OSE
A	8400138	PL		INTERLOCK ASSY 221262-1	34	L	03	64	JPL	MC	8400138		OSE
J	8400139		A	P WIRING BD #221262-1	34	L	04	64	JPL	MC	8400388		OSE
J	8400140		B	P WIR ASSY #261262-1	34	L	08	64	JPL	MC	8400161		OSE
A	8400141	PL	B	P WIRING ASSY #261262-1	34	L	08	64	JPL	MC	8400141		OSE
D	8400141		A	P WIR ASY #261262-1 SCHM	34	L	08	64	JPL	MC	8400140		OSE
J	8400142		B	P WIR BD 261262-1	34	L	08	64	JPL	MC	8400140		OSE
J	8400143		A	P WIRING BD ASSY #51062	34	L	04	64	JPL	MC	8400200		OSE
D	8400144		A	SCHEMATIC PWB 51062-1C	34	L	05	64	JPL	MC	8400143		OSE
A	8400144	PL		PRINTED WIRING BOARD	34	L	10	63	JPL	MC	4800144		OSE
J	8400145		A	P WIRING BD ASSY #51062	34	L	04	64	JPL	MC	8400199		OSE
D	8400146		A	SCHEM PWB ASSY 51062-1D	34	L	05	64	JPL	MC	8400145		OSE
A	8400146	PL		PRINTED WIRING BOARD	34	L	10	63	JPL	MC	8400146		OSE
J	8400147		B	TRANSFER ASSY 41-10	34	L	12	64	JPL	MC	8902256		OSE
D	8400148			SHUNT PLATE ASSEMBLY	35	L	02	64	JPL	MC	8400147		OSE
D	8400149		A	PLATE SHUNT XFER ASSY	34	L	04	64	JPL	MC	8400148		OSE
D	8400150		A	HEAT SINK 6 DIODE	34	L	04	64	JPL	MC	8400148		OSE
D	8400150		A	HEAT SINK 6 DIODE	34	L	04	64	JPL	MC	8400425		OSE
D	8400150		A	HEAT SINK 6 DIODE	34	L	04	64	JPL	MC	8400440		OSE
C	8400151		A	BRACKET SHUNT	34	L	04	64	JPL	MC	8400148		OSE
C	8400151		A	BRACKET SHUNT	34	L	04	64	JPL	MC	8400425		OSE
J	8400152		A	PLATE BASE XFER ASSY	34	L	04	64	JPL	MC	8400147		OSE
J	8400152		A	PLATE BASE XFER ASSY	34	L	04	64	JPL	MC	8400356		OSE
J	8400153		A	PANEL FRONT	34	L	04	64	JPL	MC	8400147		OSE
J	8400154			RELAY CASE ASSY	34	L	04	64	JPL	MC	8400147		OSE
J	8400154			RELAY CASE ASSY	34	L	04	64	JPL	MC	8400356		OSE
D	8400155			RELAY PLATE ASSEMBLY	35	L	02	64	JPL	MC	8400147		OSE
D	8400156		A	PLATE RELAY XFER ASSY	34	L	04	64	JPL	MC	8400426		OSE
D	8400156		A	PLATE RELAY	34	L	04	64	JPL	MC	8400155		OSE
C	8400157		A	HEAT SINK 2DIODE MTG	34	L	04	64	JPL	MC	8400440		OSE
C	8400157		A	HEAT SINK 2 DIODE MTG	34	L	04	64	JPL	MC	8400155		OSE
D	8400158		A	BRACKET RELAY XFER ASSY	34	L	04	64	JPL	MC	8400426		OSE
D	8400158		A	BRACKET RELAY	34	L	04	64	JPL	MC	8400155		OSE
D	8400159			BRACKET CONNECTOR BOX	35	L	02	64	JPL	MC	8400147		OSE
J	8400160			BRACKET CONNECTOR MTG	35	L	02	64	JPL	MC	8400147		OSE
J	8400161		B	CONTROL PANEL ASSY	34	L	08	64	JPL	MC			OSE
J	8400162		A	PANEL FRONT CONTROL	34	L	04	64	JPL	MC	8400161		OSE
J	8400163			PLATE BASE	34	L	04	64	JPL	MC	8400161		OSE
D	8400164			TERMINAL BOARD ASSY	34	L	04	64	JPL	MC	8400161		OSE
D	8400165			COVER STEPPING SWITCH	34	L	04	64	JPL	MC	8400161		OSE

JPL 1000 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 41 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CDL	REFERENCE NUMBER
D	8400167			COVER STEPPING SWITCH	34	L	04	64	JPL	MC	8400164		OSE
D	8400167			COVER STEPPING SWITCH	34	L	04	64	JPL	MC	8400416		OSE
D	8400168			BRACKET RELAY	34	L	04	64	JPL	MC	8400161		OSE
D	8400169			BRACKET CONNECTOR	34	L	04	64	JPL	MC	8400161		OSE
D	8400170			HEAT SINK DIODE	34	L	04	64	JPL	MC	8400199		OSE
D	8400170			HEAT SINK DIODE	34	L	04	64	JPL	MC	8400247		OSE
D	8400170			HEAT SINK DIODE	34	L	04	64	JPL	MC	8400248		OSE
D	8400170			HEAT SINK DIODE	34	L	04	64	JPL	MC	8400377		OSE
C	8400171		A	TB	34	L	04	64	JPL	MC	8400426		OSE
C	8400171		A	TB	34	L	04	64	JPL	MC	8400200		OSE
C	8400171		A	TB	34	L	04	64	JPL	MC	8400155		OSE
D	8400172		A	BRACKET TB	34	L	04	64	JPL	MC	8400200		OSE
D	8400172		A	BRACKET TB	34	L	04	64	JPL	MC	8400426		OSE
D	8400172		A	BRACKET TB	34	L	04	64	JPL	MC	8400155		OSE
J	8400173		B	P WIRING ASSY #27263-1	34	L	04	64	JPL	MC	8400147		OSE
D	8400174		B	SCHEM PB 27263-1	34	L	05	64	JPL	MC	8400173		OSE
A	8400174	PL	A	PW27263 1 TEMP MON SEL	34	L	03	64	JPL	MC	8400174		OSE
J	8400175		C	P WIRING BD #27263-1	34	L	08	64	JPL	MC	8400390		OSE
J	8400176		A	P WIRING ASSY #28263-1	34	L	04	64	JPL	MC	8400147		OSE
D	8400177		A	SCHEMATIC PB 28263-1	34	L	05	64	JPL	MC	8400176		OSE
A	8400177	PL		BATTERY CHARG INTERLOCK	34	L	12	63	JPL	MC	8400177		OSE
J	8400178		A	P WIRING BD #28263-1	34	L	04	64	JPL	MC	8400391		OSE
J	8400179		A	P WIRING ASSY #115039	34	L	04	64	JPL	MC	8400161		OSE
D	8400180		B	SCHEMATIC DIAG PWR ASSY	34	L	11	64	JPL	MC	8400179		OSE
A	8400180	PL	A	PWR BD #115039	34	L	11	64	JPL	MC	8400180		OSE
J	8400181		A	P WIRING BD #115039	34	L	04	64	JPL	MC	8400392		OSE
J	8400182		A	P WIRING ASSY #1363-1	34	L	04	64	JPL	MC	8400147		OSE
D	8400183		A	SCHEMATIC PB 1363-1	34	L	05	64	JPL	MC	8400182		OSE
J	8400184		A	P WIRING BD #1363-1	34	L	04	64	JPL	MC	8400393		OSE
J	8400185		A	P WIRING ASSY #21563-1	34	L	04	64	JPL	MC	8400147		OSE
D	8400186			SCHEM PW21563-1	34	L	03	64	JPL	MC	8400185		OSE
A	8400186	PL		PW21563-1 INTERLOCK SUBY	34	L	03	64	JPL	MC	8400186		OSE
J	8400187		A	P WIRING BD #21563-1	34	L	04	64	JPL	MC	8400394		OSE
J	8400188		A	P WIRING ASSY #18-1	34	L	04	64	JPL	MC	8400147		OSE
D	8400189		A	SCHEMATIC PWB ASY 18-1	34	L	05	64	JPL	MC	8400188		OSE
A	8400189	PL		TOLERANCE DETECTOR 18-1	34	L	02	64	JPL	MC	8400189		OSE
J	8400190		A	P WIRING BD #18-1	34	L	04	64	JPL	MC	8400395		OSE
J	8400191		B	PRINTED W BOARD ASSY	34	L	10	64	JPL	MC	8400200		OSE
D	8400192			SCHEMATIC DIAGRAM	34	L	02	64	JPL	MC	8400191		OSE
J	8400193		B	PWB #18663-1	34	L	11	64	JPL	MC	8400396		OSE

JPL 1868 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 42 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CDL	REFERENCE NUMBER
J	8400194		B	PW ASSY #10-1	34	L	09	64	JPL	MC	8400147		OSE
J	8400194		B	PW ASSY #10-1	34	L	09	64	JPL	MC	8400356		OSE
D	8400195		B	SCHEMATIC DIAG PWB	34	L	09	64	JPL	MC	8400194		OSE
A	8400195	PL	A	SENSOR RESTORER TIMER	34	L	09	64	JPL	MC	8400195		OSE
J	8400196		B	PWB #10-1	34	L	09	64	JPL	MC	8400397		OSE
J	8400197		A	SELF TEST ASSY	34	L	08	64	JPL	MC			OSE
J	8400199		C	TEST MONITOR ASSY	34	L	01	65	JPL	MC	8902457		OSE
J	8400199		C	TEST MONITOR ASSY	34	L	01	65	JPL	MC	8902330		OSE
J	8400200		B	SWITCHING LOGIC PNL ASSY	34	L	08	64	JPL	MC	8902457		OSE
J	8400201			AUX PWR SUPP ASSY	34	L	03	64	JPL	MC	8902330		OSE
J	8400202			SOLAR PNL SUBSTITUTION	35	L	02	64	JPL	MC	8901550		OSE
J	8400203			SOLAR PNL SUB ASSY	34	L	02	64	JPL	MC	8901550		OSE
D	8400204			TERMINAL BOARD ASSY 11	34	L	04	64	JPL	MC	8400161		OSE
D	8400204			TERMINAL BOARD	34	L	04	64	JPL	MC	8400354		OSE
D	8400205			TERMINAL BOARD	34	L	04	64	JPL	MC	8400164		OSE
D	8400205			TERMINAL BOARD	34	L	04	64	JPL	MC	8400416		OSE
D	8400206		A	BRACKET END CARD FILE	34	L	04	64	JPL	MC	8400147		OSE
D	8400206		A	BRACKET END CARD FILE	34	L	04	64	JPL	MC	8400356		OSE
J	8400207		A	FIELD TEST KIT SCHEM	38	L	10	64	JPL	MC	8400209		OSE
A	8400207			FIELD TEST KIT	35	L	05	64	JPL	MC	8400207		OSE
C	8400208			TB CONTROL PANEL	34	L	05	64	JPL	MC	8400354		OSE
J	8400209			FIELD TEST KIT ASSEMBLY	35	L	05	64	JPL	MC			OSE
J	8400210			CASE ASSY FIELD TEST KIT	35	L	05	64	JPL	MC	8400209		OSE
J	8400211		A	PANEL ASSY FIELD TEST	38	L	10	64	JPL	MC	8400209		OSE
D	8400212			COMP BD FIELD TEST KIT	35	L	05	64	JPL	MC	8400209		OSE
D	8400213			BRKT BATTERY	35	L	05	64	JPL	MC	8400209		OSE
D	8400214			BATT TERM STRAP	35	L	05	64	JPL	MC	8400209		OSE
J	8400216		A	T/R MONITOR PANEL ASSY	34	L	05	64	JPL	MC	8902256		OSE
J	8400217			PANEL FRONT T/R MONITOR	34	L	03	64	JPL	MC	8400216		OSE
[illegible]	[illegible]			PLATE BASE T/R MONITOR	34	L	03	64	JPL	MC	8400216		OSE
J	8400219			BRACKET CONNECTOR	34	L	03	64	JPL	MC	8400216		OSE
J	8400220		B	SCHEMATIC T/R MONITOR	34	L	05	64	JPL	MC	8400216		OSE
J	8400221		A	P WIRING ASSY 1763-1A	34	L	04	64	JPL	MC	8400199		OSE
D	8400222		A	SCHEMATIC PB 1763-1A	34	L	05	64	JPL	MC	8400221		OSE
A	8400222	PL		POWER ASSY 1763-1A	34	L	01	64	JPL	MC	8400222		OSE
J	8400223		A	P WIRING ASSY #1763-1B	34	L	04	64	JPL	MC	8400199		OSE
D	8400224		A	SCHEM PR BD #1763-1B	34	L	05	64	JPL	MC	8400223		OSE
A	8400224	PL		POWER ASSY 1763-1B	34	L	01	64	JPL	MC	8400224		OSE
J	8400225		A	P WIRING ASSY #1763-1C	34	L	04	64	JPL	MC	8400199		OSE
D	8400226		A	SCHEM PR BD #1763-1C	34	L	05	64	JPL	MC	8400225		OSE

JPL 1868 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 43 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
A	8400226	PL		POWER ASSY 1763-1C	34	L	01	64	JPL	MC	8400226		OSE
J	8400227		A	P WIRING BD #1763-1A	34	L	04	64	JPL	MC	8400398		OSE
C	8400228		A	SCHEMATIC PWB 14363-1	34	L	05	64	JPL	MC	8400120		OSE
A	8400228	PL		OVERVOLT INTLK 14363-1	34	L	01	64	JPL	MC	8400228		OSE
J	8400229		A	SCHEMATIC DIAG 41-20	34	L	07	64	JPL	MC	8400161		OSE
A	8400229			CONTROL PANEL ASSY	34	L	04	64	JPL	MC	8400229		OSE
B	8400230	WL		CONTROL PANEL ASSY	34	L	04	64	JPL	MC	8400161		OSE
J	8400231		D	TRANSFER ASSY SCHEM	34	L	12	64	JPL	MC	8400147		OSE
A	8400231	PL		TRANSFER ASSY 41-10	34	L	03	64	JPL	MC	8400231		OSE
B	8400232		C	WIR LIST XFER ASSY 41-10	34	L	08	64	JPL	MC	8400147		OSE
B	8400233	WL	B	T/R MONITOR	34	L	05	64	JPL	MC	8400216		OSE
J	8400234			CHASSIS POWER SUPPLY	34	L	04	64	JPL	MC	8400292		OSE
C	8400235			SCHEM DIAG PWR SUPP PS2	34	L	04	64	JPL	MC	8400292		OSE
J	8400236			XFORMER & RELAY ASSY	34	L	04	64	JPL	MC	8400197		OSE
D	8400237			BRACKET XFORMER & RELAY	34	L	04	64	JPL	MC	8400236		OSE
C	8400238			BRACKET CONNECTOR	34	L	04	64	JPL	MC	8400236		OSE
D	8400239			SCHEM DIAG	34	L	04	64	JPL	MC	8400236		OSE
J	8400240			PANEL FRONT 41-30	34	L	04	64	JPL	MC	8400197		OSE
J	8400241			BRACKET CONNECTOR 41-30	34	L	04	64	JPL	MC	8400197		OSE
J	8400242			PLATE BASE 41-30	34	L	04	64	JPL	MC	8400197		OSE
C	8400243			SPACER SLIDE	34	L	04	64	JPL	MC	8400197		OSE
C	8400245			SPACER POWER SUPPLY	34	L	04	64	JPL	MC	8400197		OSE
D	8400246			BRACKET ASSY	34	L	04	64	JPL	MC	8400197		OSE
C	8400247			DIODE & TEMP CONT ASSY	34	L	04	64	JPL	MC	8400197		OSE
C	8400248			DIODE & HEAT SINK ASSY	34	L	04	64	JPL	MC	8400197		OSE
B	8400249	WL		SELF TEST ASSY	34	L	04	64	JPL	MC	8400197		OSE
J	8400250			PLATE ASSY	35	L	02	64	JPL	MC	8400202		OSE
D	8400251			PLATE DIODE	35	L	02	64	JPL	MC	8400250		OSE
D	8400251			PLATE DIODE	35	L	02	64	JPL	MC	8400339		OSE
J	8400252			BOX	35	L	02	64	JPL	MC	8400202		OSE
J	8400253			BOX	34	L	02	64	JPL	MC	8400203		OSE
J	8400254		A	SCHEMATIC DIAGRAM	34	L	02	64	JPL	MC	8400250		OSE
D	8400255			JIG FIXTURE 1	35	L	02	64	JPL	MC	8400250		OSE
D	8400255			JIG FIXTURE 1	35	L	02	64	JPL	MC	8400339		OSE
D	8400256			JIG FIXTURE 2	35	L	02	64	JPL	MC	8400250		OSE
D	8400256			JIG FIXTURE 2	35	L	02	64	JPL	MC	8400339		OSE
B	8400257			SOLAR PNL SUBSTITUTION	34	L	02	64	JPL	MC	8400250		OSE
B	8400257	WL		SOLAR PNL SUBSTITUTION	34	L	02	64	JPL	MC	8400339		OSE
J	8400258		B	SCHEM SW LOGIC J2-04	34	L	04	64	JPL	MC	8400200		OSE
J	8400259		B	BASE PLATE SW LOGIC	34	L	04	64	JPL	MC	8400200		OSE

JPL 1880 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 44 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8400260			PANEL FRONT	35	L	02	64	JPL	MC	8400200		OSE
J	8400261			BRACKET CONNECTOR LOWER	35	L	02	64	JPL	MC	8400200		OSE
D	8400262			BRACKET CONNECTOR UPPER	35	L	02	64	JPL	MC	8400200		OSE
D	8400263			BRACKET RELAY	35	L	02	64	JPL	MC	8400200		OSE
B	8400264		B	WIRE LIST SW LOGIC ASSY	34	L	04	64	JPL	MC	8400200		OSE
J	8400275		A	P WIRING ASSY #161162-2	34	L	04	64	JPL	MC	8400147		OSE
D	8400276		A	SCHEM PR BD #161162-2	34	L	05	64	JPL	MC	8400275		OSE
A	8400276	PL		TEST DIVIDER 161162-2	34	L	01	64	JPL	MC	8400276		OSE
J	8400277		A	P WIRING BD #161162-2	34	L	04	64	JPL	MC	8400399		OSE
J	8400278		A	P WIRING ASSY #8363-1	34	L	04	64	JPL	MC	8400199		OSE
D	8400279		A	PWB ASY 8362-1 SCHEMATIC	34	L	05	64	JPL	MC	8400278		OSE
A	8400279	PL		ONE-SHOT SUBASSY 8363-1	34	L	03	64	JPL	MC	8400279		OSE
J	8400280		A	P WIRING BD #8363-1	34	L	04	64	JPL	MC	8400400		OSE
J	8400281		A	P WIRING ASSY #8763-1	34	L	04	64	JPL	MC	8400199		OSE
D	8400282		A	SCHEM PWB ASSY 8763-1	34	L	05	64	JPL	MC	8400281		OSE
A	8400282	PL		TEST MONITOR 8763-1	34	L	01	64	JPL	MC	8400282		OSE
J	8400283		A	P WIRING BD #8763-1	34	L	04	64	JPL	MC	8400401		OSE
J	8400284			AUXILIARY PWR SUPP ASSY	34	L	03	64	JPL	MC	8400201		OSE
J	8400285			PANEL-FRONT AUX POWER	34	L	04	64	JPL	MC	8400201		OSE
J	8400286			BASE PLATE	34	L	03	64	JPL	MC	8400201		OSE
C	8400287			BRACKET CARD FILE END	34	L	03	64	JPL	MC	8400201		OSE
D	8400288			CONNECTOR BRACKET	34	L	03	64	JPL	MC	8400201		OSE
B	8400290	WL		AUXILIARY PWR SUPP ASSY	34	L	03	64	JPL	MC	8400201		OSE
C	8400291			BLOCK MTG AUX PWR SUPP	34	L	03	64	JPL	MC	8400201		OSE
J	8400292			POWER SUPPLY LOW VOLTAGE	34	L	04	64	JPL	MC	8400197		OSE
J	8400292			POWER SUPPLY LOW VOLTAGE	34	L	04	64	JPL	MC	8400345		OSE
C	8400293			HOUSING THERMO SWITCH	34	L	04	64	JPL	MC	8400247		OSE
J	8400294		B	P WIRING BD #51062-1B	34	L	11	64	JPL	MC	8400379		OSE
J	8400295			PANEL FRONT	34	L	03	64	JPL	MC	8400199		OSE
D	8400296			BRACKET SUPPORT	34	L	03	64	JPL	MC	8400199		OSE
J	8400297		A	BASE PLATE	34	L	04	64	JPL	MC	8400199		OSE
D	8400298			BRACKET CONNECTOR	34	L	03	64	JPL	MC	8400199		OSE
D	8400299			MOUNT WELDMENT	34	L	03	64	JPL	MC	8900199		OSE
D	8400300			RESISTOR ASSY 1	34	L	03	64	JPL	MC	8400199		OSE
D	8400301			RESISTOR ASSY 2	34	L	03	64	JPL	MC	8400199		OSE
D	8400302			RESISTOR ASSY 3	34	L	03	64	JPL	MC	8400199		OSE
D	8400303			RESISTOR ASSY 4	34	L	03	64	JPL	MC	8400199		OSE
D	8400304			RESISTOR ASSY 5	34	L	03	64	JPL	MC	8400199		OSE
J	8400305			RESISTOR AND RELAY ASSY	34	L	03	64	JPL	MC	8400199		OSE
D	8400306			MOUNT DUMMY LOAD	34	L	03	64	JPL	MC	8400300		OSE

JPL 1880 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 45 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL.	REFERENCE NUMBER
D	8400307			MOUNT DUMMY LOAD	34	L	03	64	JPL	MC	8400301		OSE
D	8400308			MOUNT DUMMY LOAD	34	L	03	64	JPL	MC	8400302		OSE
D	8400309			MOUNT DUMMY LOAD	34	L	03	64	JPL	MC	8400303		OSE
D	8400309			MOUNT DUMMY LOAD	34	L	03	64	JPL	MC	8400304		OSE
D	8400310			MOUNT DUMMY LOAD	34	L	03	64	JPL	MC	8400305		OSE
C	8400311			SCHEM DIAG RESISTOR ASSY	34	L	03	64	JPL	MC	8400300		OSE
C	8400312			SCHEM DIAG RESISTOR ASSY	34	L	03	64	JPL	MC	8400301		OSE
C	8400313			SCHEM DIAG RESISTOR ASSY	34	L	03	64	JPL	MC	8400302		OSE
C	8400314			SCHEM DIAG RESISTOR ASSY	34	L	03	64	JPL	MC	8400303		OSE
C	8400315			SCHEM DIAG RESISTOR ASSY	34	L	03	64	JPL	MC	8400304		OSE
D	8400316			SCHEM DIAG RESISTOR	34	L	03	64	JPL	MC	8400305		OSE
J	8400317		A	SCHEM TEST MONITOR	34	L	04	64	JPL	MC	8400199		OSE
B	8400318			SHIM TEMP CONTROL ASSY	34	L	04	64	JPL	MC	8400247		OSE
B	8400319			THERMOELECTRIC MODULE	34	L	04	64	JPL	MC	8400197		OSE
B	8400320	WL	A	TEST MONITOR	34	L	04	64	JPL	MC	8400199		OSE
C	8400321			PLATE MTG AUX PWR SUPP	34	L	03	64	JPL	MC	8400201		OSE
J	8400322		A	P WIRING ASSY #118488	34	L	04	64	JPL	MC	8400147		OSE
D	8400323		A	SCHEMATIC PWB 118488	34	L	05	64	JPL	MC	8400322		OSE
A	8400323			PW118488 TOLERANCE DET	34	L	03	64	JPL	MC	8400323		OSE
J	8400324		A	P WIRING BD #118488	34	L	04	64	JPL	MC	8400402		OSE
J	8400325		A	P WIRING ASSY #151063-1	34	L	04	64	JPL	MC	8400749		OSE
D	8400326		A	PWIR ASY 151063-1SCHEM	34	L	05	64	JPL	MC	8400325		OSE
A	8400326	PL		SELF TEST & XFER INLOCK	34	L	03	64	JPL	MC	8400326		OSE
J	8400327		A	P WIRING BD #151063-1	34	L	04	64	JPL	MC	8400403		OSE
J	8400328		A	P WIRING ASSY #19863-1	34	L	04	64	JPL	MC	8400199		OSE
D	8400329			SCHEM PW19863-1	34	L	03	64	JPL	MC	8400328		OSE
A	8400329	PL		42-03 TEST MONITOR	34	L	03	64	JPL	MC	8400329		OSE
J	8400330		A	P WIRING BD #19863-1	34	L	04	64	JPL	MC	8400404		OSE
B	8400338	WL	A	RESISTOR & RELAY	34	L	04	64	JPL	MC	8400305		OSE
J	8400339			PLATE ASSY	34	L	02	64	JPL	MC	8400203		OSE
J	8400340		A	AUXILIARY POWER SUPPLIES	34	L	04	64	JPL	MC	8902565		OSE
B	8400341	WL	A	AUXILIARY PWR SUPP ASSY	34	L	04	64	JPL	MC	8400340		OSE
J	8400342			PLATE BASE 42A22	34	L	03	64	JPL	MC	8400340		OSE
J	8400343		A	PANEL FRONT 42A22	34	L	04	64	JPL	MC	8400340		OSE
J	8400344			BRACKET CONNECTOR 42A22	34	L	03	64	JPL	MC	8400340		OSE
J	8400345			SELF TEST ASSY 42A20	34	L	05	64	JPL	MC	8902565		OSE
J	8400346			PANEL FRONT	34	L	05	64	JPL	MC	8400345		OSE
J	8400347			BRKT CONNECTOR	34	L	05	64	JPL	MC	8400345		OSE
B	8400348	WL		SELF-TEST 42A20	34	L	05	64	JPL	MC	8400345		OSE
J	8400354		B	CONTROL PANEL	34	L	12	64	JPL	MC	8902565		OSE

JPL 1200 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 46 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL.	REFERENCE NUMBER
J	8400356			XFER ASSY 42A23	34	L	04	64	JPL	MC	8902565		OSE
J	8400357		A	PANEL FRONT	34	L	12	64	JPL	MC	8400354		OSE
D	8400358			BRACKET CARD RACK	35	L	02	64	JPL	MC	8400161		OSE
D	8400358			BRACKET CARD RACK	35	L	02	64	JPL	MC	8400197		OSE
D	8400358			BRACKET CARD RACK	35	L	02	64	JPL	MC	8400199		OSE
D	8400358			BRACKET CARD RACK	35	L	02	64	JPL	MC	8400200		OSE
D	8400358			BRACKET CARD RACK	35	L	02	64	JPL	MC	8400345		OSE
C	8400359			SPACER CARD RACK	35	L	02	64	JPL	MC	8400161		OSE
C	8400359			SPACER CARD RACK	35	L	02	64	JPL	MC	8400197		OSE
C	8400359			SPACER CARD RACK	35	L	02	64	JPL	MC	8400199		OSE
C	8400359			SPACER CARD RACK	35	L	02	64	JPL	MC	8400200		OSE
C	8400359			SPACER CARD RACK	35	L	02	64	JPL	MC	8400345		OSE
C	8400360			WASHER IDENTIFICATION	35	L	02	64	JPL	MC	8400202		OSE
C	8400360			WASHER IDENTIFICATION	35	L	02	64	JPL	MC	8400203		OSE
D	8400362			BRACKET RELAY	34	L	04	64	JPL	MC	8400197		OSE
D	8400362			BRACKET RELAY	34	L	04	64	JPL	MC	8400345		OSE
J	8400363			UTILITY DRAWER ASSY	35	L	02	64	JPL	MC	8902330		OSE
J	8400364		A	SCHEMATIC DIAG	34	L	12	64	JPL	MC	8400354		OSE
J	8400365			PRINT WIRE 640213-1	34	L	04	64	JPL	MC	8400216		OSE
D	8400366			SCHEM PW 640213-1	34	L	04	64	JPL	MC	8400365		OSE
J	8400367			PWB 640213-1	34	L	04	64	JPL	MC	8400365		OSE
J	8400368			PRINT WIRE ASY 640213-2	34	L	04	64	JPL	MC	8400216		OSE
D	8400369			SCHEMATIC PW 640213-2	34	L	04	64	JPL	MC	8400368		OSE
J	8400370			PWB 640213-2	34	L	04	64	JPL	MC	8400368		OSE
J	8400371			PLATE BASE CONTROL PNL	34	L	05	64	JPL	MC	8400354		OSE
J	8400372		A	BRACKET CONNECTOR	34	L	12	64	JPL	MC	8400354		OSE
D	8400373			BRACKET CARD GUIDE	34	L	03	64	JPL	MC	8400216		OSE
J	8400374			SCHEMATIC DIAGRAM 41-30	34	L	04	64	JPL	MC	8400197		OSE
J	8400375			SCHEMATIC DIAG SELF TEST	34	L	05	64	JPL	MC	8400345		OSE
J	8400376			SCHEMATIC DIAGRAM	34	L	02	64	JPL	MC	8400339		OSE
[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
J	8400378			P WIRING TB #51062-1A	34	L	04	64	JPL	MC	8400109		OSE
J	8400379		A	PW TERMINAL BD #51062-1B	34	L	10	64	JPL	MC	8400111		OSE
J	8400380			P WIRING TB #8463-1	34	L	04	64	JPL	MC	8400114		OSE
J	8400381			P WIRING TB #191262-1	34	L	04	64	JPL	MC	8400117		OSE
J	8400382			P WIRING TB #14363-1	34	L	04	64	JPL	MC	8400120		OSE
J	8400383			P WIRING TB #8163-1	34	L	04	64	JPL	MC	8400122		OSE
J	8400384			P WIRING TB #151162-1	34	L	04	64	JPL	MC	8400125		OSE
J	8400385			P WIRING TB #19463-1	34	L	04	64	JPL	MC	8400128		OSE
J	8400386			P WIRING TB #3163-1	34	L	04	64	JPL	MC	8400131		OSE

JPL 1200 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 47 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	8400387		A	PWIR TERMINAL BD #5163-1	34	L	11	64	JPL	MC	8400134		OSE
J	8400388			P WIRING TB #221262-1	34	L	04	64	JPL	MC	8400137		OSE
J	8400390			P WIRING TB #27263-1	34	L	04	64	JPL	MC	8400173		OSE
J	8400391			P WIRING TB #28263-1	34	L	04	64	JPL	MC	8400176		OSE
J	8400392			P WIRING TB #115039	34	L	04	64	JPL	MC	8400179		OSE
J	8400393			P WIRING TB #1363-1	34	L	04	64	JPL	MC	8400182		OSE
J	8400394			P WIRING TB #21563-1	34	L	04	64	JPL	MC	8400185		OSE
J	8400395			P WIRING TB #18-1	34	L	04	64	JPL	MC	8400188		OSE
J	8400396		A	PW TERMINAL BD #18663-1	34	L	10	64	JPL	MC	8400191		OSE
J	8400397		A	PW TERMINAL BOARD #10-1	34	L	09	64	JPL	MC	8400194		OSE
J	8400398			P WIRING TB #1763-1A	34	L	04	64	JPL	MC	8400221		OSE
J	8400399			P WIRING TB #161162-2	34	L	04	64	JPL	MC	8400275		OSE
J	8400400			P WIRING TB #8363-1	34	L	04	64	JPL	MC	8400278		OSE
J	8400401			P WIRING TB #8763-1	34	L	04	64	JPL	MC	8400281		OSE
J	8400402			P WIRING TB #118488	34	L	04	64	JPL	MC	8400322		OSE
J	8400403			P WIRING TB #151063-1	34	L	04	64	JPL	MC	8400325		OSE
J	8400404			WIRING BD #19863-1	34	L	04	64	JPL	MC	8400328		OSE
J	8400405			P WIRING TB #1763-1C	34	L	04	64	JPL	MC	8400225		OSE
D	8400416			TERMINAL BD ASSEMBLY	34	L	05	64	JPL	MC	8400354		OSE
J	8400417		A	AUXILIARY POWER SUPPLIES	34	L	04	64	JPL	MC	8400340		OSE
J	8400418			CASE VOLTMETER ASSY	34	L	03	64	JPL	MC	8400419		OSE
J	8400419		A	VOLTMETER ASSY	34	L	04	64	JPL	MC	8400437		OSE
J	8400419		A	VOLTMETER ASSY	34	L	04	64	JPL	MC	8902395		OSE
B	8400420		A	WIRE LIST CONT PANEL	34	L	12	64	JPL	MC	8400354		OSE
J	8400421			PANEL FRONT XFER ASSY	34	L	04	64	JPL	MC	8400356		OSE
J	8400422			SCHEM DIAG XFER ASSY	34	L	04	64	JPL	MC	8400356		OSE
A	8400422	PL		TRANSFER ASSY 42A23	34	L	04	64	JPL	MC	8400422		OSE
D	8400424			PLATE SHUNT	34	L	04	64	JPL	MC	8400425		OSE
D	8400425			SHUNT PLATE ASSY	34	L	04	64	JPL	MC	8400356		OSE
D	8400426			RELAY PLATE ASSY	34	L	04	64	JPL	MC	8400356		OSE
J	8400427			BRACKET CONNECTOR MTG	34	L	04	64	JPL	MC	8400356		OSE
D	8400429			PLATE MTG TERMINAL	34	L	04	64	JPL	MC	8400200		OSE
C	8400430			INSULATOR TERMINAL STRIP	34	L	04	64	JPL	MC	8400200		OSE
B	8400431	WL		POWER DISTRIBUTION	34	L	04	64	JPL	MC	8400437		OSE
J	8400432			SCHEMATIC DIAGRAM 42A16	34	L	04	64	JPL	MC	8400437		OSE
J	8400433			PANEL CONNECTOR	34	L	04	64	JPL	MC	8400437		OSE
D	8400434			BRACKET SIDE	34	L	04	64	JPL	MC	8400437		OSE
J	8400435			PLATE BASE	34	L	04	64	JPL	MC	8400437		OSE
J	8400436			PANEL FRONT	34	L	04	64	JPL	MC	8400437		OSE
J	8400437			POWER DISTRIBUTION	34	L	04	64	JPL	MC	8902565		OSE

JPL 1286 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 48 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	8400439			PNL FRONT PWR CONTROL	34	L	05	64	JPL	MC	8400440		OSE
J	8400440			POWER CONTROL ASSEMBLY	34	L	05	64	JPL	MC	8902565		OSE
J	8400441			SCHEM DIAG PWR CONT ASSY	34	L	05	64	JPL	MC	8400440		OSE
B	8400442	WL		POWER CONTROL ASSY	34	L	06	64	JPL	MC	8400440		OSE
J	8400443			BRKT CONN MOUNTING	34	L	05	64	JPL	MC	8400440		OSE
J	8400444			CHASSIS SPARE	34	L	04	64	JPL	MC	8902565		OSE
D	8400445			PANEL FRONT	34	L	04	64	JPL	MC	8400444		OSE
D	8400446			PLATE BASE	34	L	04	64	JPL	MC	8400444		OSE
D	8400447			BRACKET CONNECTOR	34	L	04	64	JPL	MC	8400444		OSE
J	8400448			PRINTED W ASSY #640321	34	L	05	64	JPL	MC	8400147		OSE
D	8400449			SCHEM DIAG PRINTED W BD	34	L	05	64	JPL	MC	8400448		OSE
4	8400450			P WIRING BD 640321-1	34	L	05	64	JPL	MC	8400677		OSE
J	8400451			PRINTED W ASSY 640323	34	L	05	64	JPL	MC	8400161		OSE
D	8400452			SCHEM DIAG PRINTED W BD	34	L	05	64	JPL	MC	8400451		OSE
4	8400453			P WIRING BD 640323-2	34	L	05	64	JPL	MC	8400678		OSE
J	8400454			SOLDER BOAT ASSY MOD 2	34	L	03	64	JPL	MC			OSE
J	8400458			P WIRING TB #1763-1B	34	L	04	64	JPL	MC	8400223		OSE
J	8400459			P WIRING BD #1763-1B	34	L	04	64	JPL	MC	8400458		OSE
J	8400460			P WIRING BD #1763-1C	34	L	04	64	JPL	MC	8400405		OSE
J	8400461			PWB #51062-1C SWITCHING	34	L	08	64	JPL	MC	8400463		OSE
J	8400462			P WIRING BD #51062-1D	34	L	04	64	JPL	MC	8400464		OSE
J	8400463		A	PW TERMINAL BD #51062-1C	34	L	09	64	JPL	MC	8400143		OSE
J	8400464			P WIRING TB #51062-1D	34	L	04	64	JPL	MC	8400145		OSE
J	8400672			PLATE BASE	34	L	05	64	JPL	MC	8400440		OSE
J	8400673			PWIR TERMINAL BD #640424	34	L	07	64	JPL	MC	8400674		OSE
J	8400674		A	PWIR ASSY #640424-1	34	L	11	64	JPL	MC	8400440		OSE
D	8400675			SCHEMATIC PWIR ASSY	34	L	07	64	JPL	MC	8400673		OSE
	8400675	PL		# 640424-1 BOLTAGE	34	L	07	64	JPL	MC	8400675		OSE
J	8400676			PWB #640424-1	34	L	07	64	JPL	MC	8400673		OSE
J	8400677			PRINTED W TERM BD#640321	34	L	05	64	JPL	MC	8400448		OSE
J	8400678			PRINTED W TERM BD#640323	34	L	05	64	JPL	MC	8400451		OSE
C	8400679		A	TERMINAL BD CONT PANEL	34	L	12	64	JPL	MC	8400354		OSE
D	8400900			AIR CIRCULATOR FAN ASSY	34	L	07	64	JPL	MC	8902564		OSE
D	8400901			PLATE FAN MOUNTING	33	L	07	64	JPL	MC	8400900		OSE
J	8400902		A	PRINTED W ASSY 640818-1	34	L	12	64	JPL	MC	8400147		OSE
J	8400903		A	PRINTED W TERMINAL BD	34	L	12	64	JPL	MC	8400902		OSE
J	8400904		A	PRINTED W BD 640818-1	34	L	12	64	JPL	MC	8400903		OSE
D	8400905		A	SCHEMATIC DIAG	34	L	12	64	JPL	MC	8400902		OSE
A	8400905	PL		TOLERANCE DETECTOR	34	L	09	64	JPL	MC	8400905		OSE
J	8400906			PRINTED WIRING ASSY	34	L	12	64	JPL	MC	8400354		OSE

JPL 1286 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 49 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	SYS STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	SEQUENCE NUMBER
J	8400906			PRINTED WIRING ASSY	34	L	12	64	JPL	MC	8400161		OSE
J	8400907			PRINTED WIRING TERMINAL	34	L	12	64	JPL	MC	8400906		OSE
D	8400908			PRINTED WIRING BD 640915	34	L	12	64	JPL	MC	8400907		OSE
D	8400909			SCHEMATIC DIAGRAM	34	L	12	64	JPL	MC	8400906		OSE
J	8400910			METER PANEL ASSY	34	L	12	64	JPL	MC			OSE
D	8400912			CHASSIS METER PANEL	34	L	12	64	JPL	MC	8400910		OSE
C	8400913			INSULATION BD RELAY	34	L	12	64	JPL	MC	8400906		OSE
J	8500041		B	CB INDICATOR LIGHT ASSY	32	L	02	64	JPL	MC	8800498		OSE
J	8500041		B	CB INDICATOR LIGHT ASSY	32	L	02	64	JPL	MC	8800499		OSE
J	8600247		B	PANEL FRONT	33	L	12	64	JPL	MC			OSE
D	8600248		A	COMMAND RWV SYS BLOCK	33	L	12	64	JPL	MC			OSE
D	8600249		B	WIRING DIAGRAM	33	L	12	64	JPL	MC			OSE
D	8600250		K	SYSTEM CONTROL	33	L	12	64	JPL	MC			OSE
D	8600251		L	SYSTEM AUX PNL & DRAWER	33	L	02	65	JPL	MC			OSE
D	8600252		Q	CONTROL LOGIC	33	L	01	65	JPL	MC			OSE
D	8600253		J	VERIFY LOGIC	33	L	12	64	JPL	MC			OSE
D	8600254			EMERGENCY DATA	33	L	12	64	JPL	MC			OSE
D	8600255		K	MODULATOR LOGIC	33	L	02	65	JPL	MC			OSE
D	8600256		E	DETECTOR LOGIC	33	L	12	64	JPL	MC			OSE
D	8600257		E	TM & COMMAND EVENTS	33	L	02	65	JPL	MC			OSE
D	8600258		C	T O D LOGIC	33	L	12	64	JPL	MC			OSE
J	8600259		H	TOP MECHANICAL ASSY SYS	33	L	12	64	JPL	MC			OSE
C	8600260		D	AUXILARY COMPONENT ASSY	33	L	12	64	JPL	MC			OSE
J	8600261		H	TOP MECHANICAL ASSY	33	L	12	64	JPL	MC			OSE
D	8600401			JIG LOW GAIN ANTENNA	34	L	08	63	JPL	MC			OSE
C	8600402			DRILL TEMPLATE SUBCHASS	35	L	06	63	JPL	MC	4600484		OSE
C	8600402			DRILL TEMPLATE SUBCHASS	35	L	06	63	JPL	MC	4600485		OSE
D	8600403			RELAY COVER	33	L	12	64	JPL	MC			OSE
J	8700031		B	FUEL FILL VACUUM ASSY	35	L	07	64	JPL	MC	8700135		OSE
D	8700050		A	PLUG CHECK VALVE	34	L	08	64	JPL	MC	8200982		OSE
D	8700066		B	VALVE CHECK	34	L	07	64	JPL	MC	8700052		OSE
D	8700081		A	CORE PATTERN	38	L	05	63	JPL	MC	8700083		OSE
J	8700082			CURING MOLD BLADDER	38	L	05	63	JPL	MC	8700083		OSE
J	8700083		A	CURING MOLD ASSY	38	L	05	63	JPL	MC			OSE
J	8700090			DRILL JIG	38	L	05	63	JPL	MC			OSE
D	8700091			DRILL JIG ASSY	38	L	05	63	JPL	MC	8700092		OSE
J	8700092			RIVITIN FIXTURE	38	L	05	63	JPL	MC			OSE
J	8700094			TEST FIXTURE	38	L	05	63	JPL	MC			OSE
J	8700095			DRILL PLATE	38	L	04	63	JPL	MC			OSE
B	8700096		B	SCREW CURING MOLD BLADER	38	L	09	63	JPL	MC	8700083		OSE

JPL 1806 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 50 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	SYS STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	SEQUENCE NUMBER
J	8700097			WELD FIXTURE	38	L	06	63	JPL	MC			OSE
J	8700098			TEST FIXTURE ASSY	38	L	06	63	JPL	MC			OSE
J	8700100			WELD FIXTURE ASSY	38	L	07	63	JPL	MC			OSE
C	8700103			SPLIT RING	38	L	05	63	JPL	MC	8700083		OSE
D	8700104			PIN CORE CURING MOLD	38	L	05	63	JPL	MC	8700083		OSE
C	8700107			FUEL TANK PROOF TEST FIX	38	L	07	63	JPL	MC			OSE
C	8700108			PRESSURE TEST FIXTURE	38	L	07	63	JPL	MC			OSE
C	8700109			PRESSURE TEST FIXTURE	38	L	07	63	JPL	MC			OSE
C	8700110			PRESSURE TEST FIXTURE	38	L	07	63	JPL	MC			OSE
C	8700111			NITROGEN TANK	38	L	07	63	JPL	MC			OSE
D	8700112			PRESSURE TEST FIXTURE	38	L	07	63	JPL	MC			OSE
J	8700114		A	FITTING FILL VALVE WELD	38	L	09	63	JPL	MC			OSE
J	8700126			LEAK TEST FIXTURE	38	L	08	63	JPL	MC			OSE
J	8700127		B	TEST FIXTURE N2& PROP	38	L	05	64	JPL	MC			OSE
J	8700128			LEAK TEST FIXTURE	38	L	08	63	JPL	MC			OSE
J	8700135			PROP FILL FIXTURE	38	L	10	63	JPL	MC			OSE
J	8700138			OXIDIZER FILL BRAZED ASY	38	L	10	63	JPL	MC	8700139		OSE
J	8700139			OXIDIZER FILL INSTL	38	L	10	63	JPL	MC			OSE
J	8700140		B	TEST FIXTURE OXIDIZER	38	L	05	64	JPL	MC			OSE
B	8800047			HEAT SINK	32	L	02	62	JPL	MC			OSE
J	8800207		A	CBI ASSY RELAY DRIVER	32	L	03	64	JPL	MC	8800697		OSE
J	8800207		A	CBI ASSY RELAY DRIVER	32	L	03	64	JPL	MC	8800210		OSE
J	8800208			CBI PC RELAY DRIVER	32	L	01	63	JPL	MC	8800207		OSE
J	8800209			CBI ASSY SCHEMATIC	32	L	01	63	JPL	MC	8800207		OSE
J	8800210			CLOCK RELAY ASSY	32	L	05	63	JPL	MC	8800296		OSE
J	8800212		A	SUBCHASSIS ASSY	32	L	03	64	JPL	MC	8800697		OSE
J	8800212		A	SUBCHASSIS ASSY	32	L	03	64	JPL	MC	8800210		OSE
D	8800213			FRONT PANEL-MACHINE	32	L	05	63	JPL	MC	8800210		OSE
J	8800214			SUBCHASS CLOCK RELAY	32	L	05	63	JPL	MC	8800212		OSE
D	8800215			REAR PANEL CHASSIS	32	L	05	63	JPL	MC	8800210		OSE
C	8800216			BRACKET SUB-CHASSIS	32	L	05	63	JPL	MC	8800210		OSE
D	8800217			SIDE PANEL RH	32	L	05	63	JPL	MC	8800210		OSE
D	8800218			SIDE PANEL LH	32	L	05	63	JPL	MC	8800210		OSE
D	8800219			RAIL 1 CHASSIS	32	L	05	63	JPL	MC	8800210		OSE
D	8800220			RAIL 2 CHASSIS	32	L	05	63	JPL	MC	8800210		OSE
C	8800293			INSULATE STRIP CHASS	32	L	05	63	JPL	MC	8800210		OSE
C	8800294			INSULATE STRIP CHASS	32	L	05	63	JPL	MC	8800210		OSE
J	8800295			DECK CHASSIS	32	L	05	63	JPL	MC	8800210		OSE
J	8800297			CLOCK RELAY CHASSIS	32	L	05	63	JPL	MC	8800212		OSE
D	8800298		A	TELETYP CONVERSION SCHEM	32	L	10	63	JPL	MC	8800299		OSE

JPL 1806 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 51 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8800299		A	PRINTED WIRING ASSY #1	32	L	10	63	JPL	MC	8800301		OSE
J	8800299		A	PRINTED WIRING ASSY #1	32	L	10	63	JPL	MC	8800329		OSE
A	8800299	PL	A	CB1 TELETYPE CONVERSION	32	L	10	63	JPL	MC	8800299		OSE
J	8800300		A	PRINTED WIR BOARD #1	32	L	10	63	JPL	MC	8800299		OSE
J	8800320			CIRCUIT BOARD	32	L	05	63	JPL	MC			OSE
J	8800329		A	REAL TIME DATA XLATOR	32	L	03	64	JPL	MC	8800540		OSE
J	8800330		A	DECK REAL TIME DATA	32	L	03	64	JPL	MC	8800329		OSE
J	8800331			FRONT PANEL	32	L	07	63	JPL	MC	8800329		OSE
D	8800332			INDICATOR PANEL	32	L	07	63	JPL	MC	8800329		OSE
D	8800333			INDICATOR LIGHT ASSY 1	32	L	07	63	JPL	MC	8800329		OSE
D	8800334			INDICATOR LIGHT ASSY 2	32	L	07	63	JPL	MC	8800329		OSE
D	8800335			BRACKET LIGHT	32	L	07	63	JPL	MC	8800333		OSE
D	8800335			BRACKET LIGHT	32	L	07	63	JPL	MC	8800334		OSE
J	8800336			CB1 ASSY	32	L	07	63	JPL	MC	8800333		OSE
J	8800336			CB1 ASSY	32	L	07	63	JPL	MC	8800334		OSE
C	8800337			CB2 ASSEMBLY	32	L	07	63	JPL	MC	8800347		OSE
D	8800338		A	SIDE PANEL	32	L	03	64	JPL	MC	8800329		OSE
J	8800340			CB1 PC INDICATOR LIGHT	32	L	07	63	JPL	MC	8800336		OSE
J	8800342		B	W DIAG REAL TIME DATA	32	L	07	64	JPL	MC	8800329		OSE
D	8800344		A	CROSS RAIL	32	L	03	64	JPL	MC	8800329		OSE
D	8800345		A	RAIL	32	L	03	64	JPL	MC	8800329		OSE
D	8800346		A	REAR PANEL	32	L	03	64	JPL	MC	8800329		OSE
D	8800347			INDICATOR LIGHT PWR SUP	32	L	07	63	JPL	MC	8800329		OSE
D	8800348			SUBCHASSIS	32	L	07	63	JPL	MC	8800347		OSE
D	8800349			SCHEMATIC DGM	32	L	07	63	JPL	MC	8800347		OSE
C	8800351			TERMINAL BOARD	32	L	07	63	JPL	MC	8800337		OSE
J	8800353			DECK CMPTR LOGIC	32	L	02	64	JPL	MC	8800498		OSE
J	8800353			DECK CMPTR LOGIC	32	L	02	64	JPL	MC	8800499		OSE
D	8800354			RAIL COMPUTER LOGIC	32	L	02	64	JPL	MC	8800498		OSE
D	8800354			RAIL COMPUTER LOGIC	32	L	02	64	JPL	MC	8800499		OSE
D	8800355			CROSS RAIL CMPTR LOGIC	32	L	02	64	JPL	MC	8800498		OSE
D	8800355			CROSS RAIL CMPTR LOGIC	32	L	02	64	JPL	MC	8800499		OSE
D	8800356			REAR PANEL CMPTR LOGIC	32	L	02	64	JPL	MC	8800498		OSE
D	8800356			REAR PANEL CMPTR LOGIC	32	L	02	64	JPL	MC	8800499		OSE
J	8800359		E	SCIENCE CABLING DIAG	32	L	02	65	JPL	MC	8901550		OSE
J	8800360			SPACE SCIENCE OSE ASSY	32	L	02	65	JPL	MC			OSE
J	8800361		C	SCIENCE OSE IN-RACK CBLE	32	L	07	64	JPL	MC	8800360		OSE
J	8800362		B	120RC1A5J25 PLUGBOARD	32	L	03	65	JPL	MC	8800552		OSE
B	8800363			CABLE ASSY 120RC1WA1	31	L	01	64	JPL	MC	8800361		OSE
B	8800364		A	CABLE ASSY 120RC1WA2	32	L	06	64	JPL	MC	8800361		OSE

JPL 1806 JUN 62

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 52 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
B	8800365			CABLE ASSY 120RC1WA3	32	L	01	64	JPL	MC	8800361		OSE
B	8800366			CABLE ASSY 12/RC1WA4	32	L	01	64	JPL	MC	8800361		OSE
B	8800367			CABLE ASSY 120RC1WA5	32	L	01	64	JPL	MC	8800361		OSE
B	8800368			CABLE ASSY 120RC1WA6	32	L	01	64	JPL	MC	8800361		OSE
B	8800369			CABLE ASSY 120RC1WA7	32	L	01	64	JPL	MC	8800361		OSE
B	8800370			CABLE ASSY 120RC1WA8	32	L	01	64	JPL	MC	8800361		OSE
B	8800371			CABLE ASSY 120RC1WA9	32	L	01	64	JPL	MC	8800361		OSE
B	8800372			CABLE ASSY 120RC1WA10	32	L	01	64	JPL	MC	8800361		OSE
B	8800373		A	CABLE ASSEMBLY	32	L	07	64	JPL	MC	8800361		OSE
B	8800374			CABLE ASSY 120RC1WA12	32	L	01	64	JPL	MC	8800361		OSE
B	8800375			CABLE ASSY 120RC1WA13	32	L	01	64	JPL	MC	8800361		OSE
B	8800376			CABLE ASSY 120RC1WA14	32	L	01	64	JPL	MC	8800361		OSE
B	8800377			CABLE ASSY 12/RC1WA15	32	L	01	64	JPL	MC	8800361		OSE
B	8800378			CABLE ASSY 120RC1WA16	32	L	01	64	JPL	MC	8800361		OSE
B	8800379			CABLE ASSY 120RC1WA17	32	L	01	64	JPL	MC	8800361		OSE
B	8800380			CABLE ASSY 120RC1WA18	32	L	01	64	JPL	MC	8800361		OSE
B	8800381			CABLE ASSY 120RC1WA19	32	L	01	64	JPL	MC	8800361		OSE
B	8800382			CABLE ASSY 120RC1WA20	32	L	01	64	JPL	MC	8800361		OSE
B	8800383			CABLE ASSY 120RC1WA21	32	L	01	64	JPL	MC	8800361		OSE
B	8800384			CABLE ASSY 120RC1WA22	32	L	01	64	JPL	MC	8800361		OSE
B	8800385			CABLE ASSY 12/RC1WA23	32	L	01	64	JPL	MC	8800361		OSE
B	8800386			CABLE ASSY 120RC1WA24	32	L	01	64	JPL	MC	8800361		OSE
B	8800387			CABLE ASSY 12/RC1WA25	32	L	01	64	JPL	MC	8800361		OSE
B	8800388			CABLE ASSY 12/RC1WA26	32	L	01	64	JPL	MC	8800361		OSE
B	8800389		A	CABLE ASSY 120RC1WA27	32	L	03	64	JPL	MC	8800361		OSE
B	8800390		A	CABLE ASSY 120RC1WA28	32	L	03	64	JPL	MC	8800361		OSE
B	8800391			CABLE ASSY 12/RC4WA1	32	L	01	64	JPL	MC	8800361		OSE
B	8800392		A	CABLE ASSY 120RC4WA2	32	L	01	65	JPL	MC	8800361		OSE
B	8800393			CABLE ASSY 120RC2WA1	32	L	01	64	JPL	MC	8800361		OSE
B	8800394		A	CABLE ASSY 120RC2WA2	32	L	03	64	JPL	MC	8800361		OSE
B	8800395			CABLE ASSY 12/RC2WA3	32	L	01	64	JPL	MC	8800361		OSE
B	8800396			CABLE ASSY 12/RC2WA4	32	L	01	64	JPL	MC	8800361		OSE
B	8800397			CABLE ASSY 120RC2WA5	32	L	01	64	JPL	MC	8800361		OSE
B	8800398			CABLE ASSY 120RC2WA6	32	L	01	64	JPL	MC	8800361		OSE
B	8800399			CABLE ASSY 120RC2WA7	32	L	01	64	JPL	MC	8800361		OSE
B	8800400			CABLE ASSY 120RC2WA8	32	L	01	64	JPL	MC	8800361		OSE
B	8800401			CABLE ASSY 120RC2WA9	32	L	01	64	JPL	MC	8800361		OSE
B	8800402			CABLE ASSY 120RC2WA10	32	L	01	64	JPL	MC	8800361		OSE
B	8800403			CABLE ASSY 120RC2WA11	32	L	01	64	JPL	MC	8800361		OSE
B	8800404			CABLE ASSY 12/RC2WA12	32	L	01	64	JPL	MC	8800361		OSE

JPL 1806 JUN 62

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 53 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	MAJ. DIV.	DWG STAT	RELEASE DATE DAY	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY REQ.	REFERENCE NUMBER
B	8800407			CABLE ASSY 12/RC2WA15	32	L	01	64	JPL	MC	8800361		OSE
B	8800408			CABLE ASSY 12/RC2WA16	32	L	01	64	JPL	MC	8800361		OSE
B	8800409			CABLE ASSY 12/RC2WA17	32	L	01	64	JPL	MC	8800361		OSE
B	8800410			CABLE ASSY 120RC2WA18	32	L	01	64	JPL	MC	8800361		OSE
B	8800411			CABLE ASSY 120RC2WA19	32	L	01	64	JPL	MC	8800361		OSE
B	8800412			CABLE ASSY 12/RC2WA20	32	L	01	64	JPL	MC	8800361		OSE
B	8800413			CABLE ASSY 120RC2WA21	32	L	03	64	JPL	MC	8800361		OSE
B	8800414		A	CABLE ASSY 120RC3WA1	32	L	03	64	JPL	MC	8800361		OSE
B	8800415			CABLE ASSY 120RC3WA2	32	L	01	64	JPL	MC	8800361		OSE
B	8800416			CABLE ASSY 12/RC3WA3	32	L	01	64	JPL	MC	8800361		OSE
B	8800417			CABLE ASSY 12/RC3WA4	32	L	01	64	JPL	MC	8800361		OSE
B	8800418			CABLE ASSY 120RC3WA5	32	L	03	64	JPL	MC	8800361		OSE
B	8800419		A	CABLE ASSY 120RC5WA1	31	L	04	64	JPL	MC	8800361		OSE
B	8800420		A	CABLE ASSY 120RC5WA2	32	L	06	64	JPL	MC	8800361		OSE
B	8800421		A	CABLE ASSY 123RC4WA3-1-2	32	L	07	64	JPL	MC	8800361		OSE
B	8800422		A	CABLE ASSY 120RC5WA4	32	L	03	64	JPL	MC	8800361		OSE
B	8800423			CABLE ASSY 12/RC5WA5	32	L	01	64	JPL	MC	8800361		OSE
B	8800424			CABLE ASSY 12/RC5WA6	32	L	01	64	JPL	MC	8800361		OSE
B	8800425			CABLE ASSY 12/RC5WA7	32	L	01	64	JPL	MC	8800361		OSE
B	8800427		B	CABLE ASSY 120RC6WA1	32	L	03	64	JPL	MC	8800361		OSE
B	8800428			CABLE ASSY 12/RC6WA2	32	L	01	64	JPL	MC	8800361		OSE
B	8800429		A	CABLE ASSY 120RC6WA3	32	L	03	64	JPL	MC	8800361		OSE
B	8800430			CABLE ASSY 120RC6WA4	32	L	03	64	JPL	MC	8800361		OSE
B	8800431	DL		SCIENCE GROUND CABLES	32	L	03	64	JPL	MC	8800360		OSE
B	8800432	DL		SCIENCE TEST CABLES	32	L	03	64	JPL	MC	8800360		OSE
B	8800433	DL		SCIENCE INTER-RACK CABLE	32	L	03	64	JPL	MC	8800360		OSE
B	8800434			SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800359		OSE
B	8800435	DL		SCIENCE INTRA-RACK CABLE	32	L	03	64	JPL	MC	8800361		OSE
B	8800436	DL		SCIENCE DAS-PDP4 CABLE	32	L	03	64	JPL	MC	8800360		OSE
J	8800437			W DIAG COMPUTER J-BOX	32	L	09	64	JPL	MC	8800439		OSE
J	8800438			CHASSIS ASSY COMPUTER	32	L	09	64	JPL	MC	8800439		OSE
J	8800439		A	COMPUTER JUNCTION BOX	32	L	01	65	JPL	MC	8800447		OSE
B	8800440			CABLE ASSY 120RC6WA5	32	L	06	64	JPL	MC	8800361		OSE
B	8800441			CABLE ASSY 120RC1WA29	32	L	06	64	JPL	MC	8800361		OSE
B	8800442			CABLE ASSY 120RC1WA30	32	L	06	64	JPL	MC	8800361		OSE
B	8800443			CABLE ASSY 120RC1WA31	32	L	06	64	JPL	MC	8800361		OSE
B	8800444			CABLE ASSY 120RC1WA32	32	L	06	64	JPL	MC	8800361		OSE
B	8800445			CABLE ASSY 120RC1WA33	32	L	06	64	JPL	MC	8800361		OSE
B	8800446			CABLE ASSY 120RC1WA34	32	L	06	64	JPL	MC	8800361		OSE
D	8800447			COVER COMPUTER J-BOX	32	L	09	64	JPL	MC	8800438		OSE

JPL 1000 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 54 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	MAJ. DIV.	DWG STAT	RELEASE DATE DAY	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY REQ.	REFERENCE NUMBER
D	8800448			PANEL COMPUTER J-BOX	32	L	09	64	JPL	MC	8800438		OSE
D	8800449			SIDE PANEL COMPUTER J-BO	32	L	09	64	JPL	MC	8800438		OSE
B	8800450			CABLE ASSY 120RC5 WA2X	32	L	06	64	JPL	MC	8800361		OSE
B	8800451			CABLE ASSY 120RC11WA1	32	L	01	65	JPL	MC	8800812		OSE
B	8800452			CABLE ASSY 120RC11WA2	32	L	01	65	JPL	MC	8800812		OSE
B	8800453			CABLE ASSY 120RC3WA6	32	L	07	64	JPL	MC	8800361		OSE
B	8800454			CABLE ASSY 120RC3WA7	32	L	07	64	JPL	MC	8800361		OSE
D	8800459			SIDE PNL CMPTR LOGIC 1&2	32	L	02	64	JPL	MC	8800498		OSE
D	8800459			SIDE PNL CMPTR LOGIC 1&2	32	L	02	64	JPL	MC	8800499		OSE
J	8800473			CROSSBAR SELECTOR #1 ASY	32	L	04	64	JPL	MC	8800605		OSE
J	8800474			PANEL FRONT	32	L	04	64	JPL	MC	8800473		OSE
J	8800475			PLATE TOP	32	L	04	64	JPL	MC	8800473		OSE
D	8800476			CHANNEL REAR	32	L	04	64	JPL	MC	8800473		OSE
D	8800477			CHANNEL FRONT	32	L	04	64	JPL	MC	8800473		OSE
D	8800478			CHANNEL SIDE	32	L	04	64	JPL	MC	8800473		OSE
D	8800479			CHANNEL SUPPORT	32	L	04	64	JPL	MC	8800473		OSE
D	8800480			POWER SUPPLY ASSY A25	32	L	04	64	JPL	MC	8800604		OSE
D	8800480			POWER SUPPLY ASSY A25	32	L	04	64	JPL	MC	8800473		OSE
D	8800481			CHASSIS POWER SUPPLY	32	L	04	64	JPL	MC	8800480		OSE
C	8800482			WIRING BOARD ASSEMBLY	32	L	04	64	JPL	MC	8800480		OSE
C	8800483			WIRING BD POWER SUPPLY	32	L	04	64	JPL	MC	8800482		OSE
C	8800484			POWER SUPPLY SCHEM DIAG	32	L	04	64	JPL	MC	8800482		OSE
J	8800486		A	STANDARD RACK	32	L	01	64	JPL				OSE
J	8800487			CB SPECIAL MULTIPLEXER	32	L	08	63	JPL	MC	8800499		OSE
D	8800488			SCHEMATIC DGM	32	L	08	63	JPL	MC	8800487		OSE
A	8800488	PL		SPECIAL MULTIPLEXOR SET	32	L	08	63	JPL	MC	8800488		OSE
D	8800489			CHANNEL GUIDE	32	L	08	63	JPL	MC	8800494		OSE
D	8800489			CHANNEL GUIDE	32	L	08	63	JPL	MC	8800487		OSE
J	8800492			PC SPECIAL MULTIPLEXER	32	L	08	63	JPL	MC	8800487		OSE
J	8800494		A	CB SPECIAL INTERRUPT	32	L	10	63	JPL	MC	8800508		OSE
D	8800495		B	CB SCHEM DIAG	32	L	03	64	JPL	MC	8800887		OSE
D	8800495		B	CB SCHEM DIAG	32	L	03	64	JPL	MC	8800494		OSE
A	8800495	PL	A	SPECIAL INTERRUPT CB	32	L	10	63	JPL	MC	8800495		OSE
J	8800496		B	P WIR BD SPECIAL INTERPT	32	L	03	64	JPL	MC	8800494		OSE
J	8800496		B	P WIR BD SPECIAL INTERPT	32	L	03	64	JPL	MC	8800887		OSE
C	8800497			BRACKET	32	L	07	63	JPL	MC	8800351		OSE
J	8800498			COMPUTER LOGIC 1 ASSY	32	L	02	64	JPL	MC	8800545		OSE
J	8800499			COMPUTER LOGIC 2 ASSY	32	L	02	64	JPL	MC	8800545		OSE
C	8800500			FILE COVER RELAY CHASSIS	32	L	01	64	JPL	MC	8800508		OSE
C	8800501			BRKT PWR SUPP RELAY CHAS	32	L	01	64	JPL	MC	8800508		OSE

JPL 1000 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 55 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	8800502			BRKT PWR SUPP RELAY CHAS	32	L	01	64	JPL	MC	8800508		OSE
C	8800503			BRKT PWR SUPP RELAY CHAS	32	L	01	64	JPL	MC	8800508		OSE
C	8800504			BRKT PWR SUPP RELAY CHAS	32	L	01	64	JPL	MC	8800508		OSE
D	8800505			RAIL RELAY CHASSIS	32	L	01	64	JPL	MC	8800508		OSE
D	8800506			REAR PANEL RELAY CHASSIS	32	L	01	64	JPL	MC	8800508		OSE
J	8800507			DECK RELAY CHASSIS	32	L	01	64	JPL	MC	8800508		OSE
J	8800508			RELAY CHASSIS ASSY	32	L	01	64	JPL	MC	8800545		OSE
J	8800509			RELAY-OVER/RIDE SCHEM	32	L	01	64	JPL	MC	8800508		OSE
J	8800510			FRONT PANEL RELAY CHASS	32	L	01	64	JPL	MC	8800508		OSE
D	8800511			CROSS RAIL RELAY CHASSIS	32	L	01	64	JPL	MC	8800508		OSE
D	8800512			SIDE PANEL RELAY CHASSIS	32	L	01	64	JPL	MC	8800508		OSE
J	8800513		A	TIME METER PANEL ASSY	32	L	03	65	JPL	MC	8800545		OSE
J	8800514			FRONT PANEL	32	L	03	65	JPL	MC	8800513		OSE
D	8800515		A	TIME METER PNL SCHEM	32	L	03	65	JPL	MC	8800513		OSE
J	8800516		A	CHASSIS	32	L	03	65	JPL	MC	8800513		OSE
J	8800518		A	PRINTED WIRING ASSY 1	32	L	03	65	JPL	MC	8800513		OSE
D	8800519			SCHEM FR PNL SW CMPTR 2	35	L	02	64	JPL	MC	8800499		OSE
D	8800519			SCHEM FR PNL SW CMPTR 2	35	L	02	64	JPL	MC	8800531		OSE
D	8800520			IND LT ASY CMPTR LOGIC 1	32	L	02	64	JPL	MC	8800498		OSE
J	8800521			FR PNL CMPTR LOGIC 1	32	L	02	64	JPL	MC	8800498		OSE
D	8800522			IND PNL CMPTR LOGIC 1	32	L	02	64	JPL	MC	8800498		OSE
D	8800524			END PLATE CARD FILE	32	L	02	64	JPL	MC	8800525		OSE
D	8800525			CARD FILE ASSEMBLY	32	L	02	64	JPL	MC	8800499		OSE
D	8800526			IND LT ASY CMPTR LOGIC 2	32	L	02	64	JPL	MC	8800499		OSE
J	8800528			FRONT PNL CMPTR LOGIC 2	32	L	02	64	JPL	MC	8800499		OSE
D	8800530			IND PNL CMPTR LOGIC 2	32	L	02	64	JPL	MC	8800499		OSE
C	8800531			COMPONENT BD ASY CMPTR 2	32	L	02	64	JPL	MC	8800499		OSE
J	8800532		A	PRINTED WIRING BD 1	32	L	03	65	JPL	MC	8800518		OSE
J	8800533			PRINTED WIRING ASSY A24	32	L	04	64	JPL	MC	8800604		OSE
J	8800534			CROSSBAR SELECTOR	32	L	04	64	JPL	MC	8800533		OSE
C	8800535			PRINTER IDENT SCHEM DIAG	32	L	04	64	JPL	MC	8800533		OSE
J	8800537			JUMPER CARD POWER SUPPLY	32	L	07	63	JPL	MC	8800499		OSE
J	8800538			PC JUMPER CARD	32	L	07	63	JPL	MC	8800537		OSE
C	8800539			JUMPER CARD SCHEM CGM	32	L	07	63	JPL	MC	8800537		OSE
J	8800540		A	DAS CONTROL CONSOLE	32	L	03	65	JPL	MC	8800360		OSE
J	8800541			TWO-ROW CONNECTOR PANEL	32	L	09	63	JPL	MC	8800545		OSE
J	8800542			UPPER BRACKET ASSY	32	L	09	63	JPL	MC	8800541		OSE
J	8800543			LOWER BRACKET	32	L	09	63	JPL	MC	8800541		OSE
J	8800544		A	FRAME TWO-ROW CONNECTOR	32	L	01	65	JPL	MC	8800541		OSE
J	8800545			COMPUTER CONT CONSOLE	32	L	07	64	JPL	MC	8800360		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 56 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8800546		B	JUNCTION BOX ASSEMBLY	32	L	02	64	JPL	MC	8800606		OSE
D	8800548			FRONT PNL JUNCTION BOX	32	L	09	63	JPL	MC	8800546		OSE
J	8800549			DECK SMALL JUNCTION BOX	32	L	09	63	JPL	MC	8800546		OSE
J	8800552		A	PATCH CHASSIS ASSY	32	L	04	64	JPL	MC	8800545		OSE
D	8800553			FRONT PANEL WELDMENT	32	L	09	63	JPL	MC	8800561		OSE
J	8800554			SIDE PANEL	32	L	09	63	JPL	MC	8800552		OSE
J	8800555			REAR PANEL	32	L	09	63	JPL	MC	8800552		OSE
J	8800556			DECK CONNECTOR MTG ASSY	32	L	09	63	JPL	MC	8800552		OSE
D	8800557			ANGLE SUPPORT	32	L	09	63	JPL	MC	8800552		OSE
D	8800558			STIFFENER CHASSIS	32	L	09	63	JPL	MC	8800552		OSE
D	8800559			SHELF CABLE	32	L	09	63	JPL	MC	8800552		OSE
D	8800560			BRACKET MOUNTING	32	L	09	63	JPL	MC	8800552		OSE
D	8800561			FRONT PANEL ENGRAVING	32	L	09	63	JPL	MC	8800552		OSE
D	8800562			TRAY SPACER	34	L	03	64	JPL	MC	8800763		OSE
J	8800563			TRAY CONN MTG WELDMENT	34	L	03	64	JPL	MC	8800763		OSE
C	8800564			CONNECTOR BRACKET	34	L	03	64	JPL	MC	8800566		OSE
D	8800565			PLATE TOP CARD FILE	34	L	03	64	JPL	MC	8800566		OSE
J	8800566			MARRIAGE UNIT ASSEMBLY	34	L	03	64	JPL	MC	8800545		OSE
J	8800567			PLATE BOTTOM CARD FILE	34	L	03	64	JPL	MC	8800763		OSE
J	8800568		A	TV CONTROL PNL ASSY	32	L	02	64	JPL	MC	8800605		OSE
J	8800569		A	FRONT PNL TV CONTROL	32	L	02	64	JPL	MC	8800568		OSE
J	8800571			DECK CHASSIS	32	L	12	63	JPL	MC	8800568		OSE
D	8800572			PANEL SIDE CHASSIS	32	L	12	63	JPL	MC	8800568		OSE
D	8800573		A	PANEL REAR	32	L	02	64	JPL	MC	8800568		OSE
D	8800574			CROSS RAIL	32	L	12	63	JPL	MC	8800568		OSE
C	8800575			MOUNT POWER SUPPLY	32	L	12	63	JPL	MC	8800568		OSE
J	8800576		A	CONNECTOR PANEL ASSY	32	L	01	65	JPL	MC	8800606		OSE
J	8800577		A	BRACKET CONNECTOR PANEL	32	L	01	65	JPL	MC	8800576		OSE
J	8800578			FRAME CONNECTOR PANEL	32	L	09	63	JPL	MC	8800576		OSE
J	8800579			COUNT RATE ACCUMULATOR	32	L	10	63	JPL	MC	8800606		OSE
J	8800580			FRONT PANEL	32	L	10	63	JPL	MC	8800579		OSE
D	8800581			SIDE PANEL	32	L	10	63	JPL	MC	8800579		OSE
D	8800582			REAR PANEL	32	L	10	63	JPL	MC	8800579		OSE
D	8800583			CROSS RAIL	32	L	10	63	JPL	MC	8800579		OSE
J	8800584			DECK COUNT RATE ACCUMLTR	32	L	10	63	JPL	MC	8800759		OSE
D	8800585			RAIL RIGHT	32	L	12	63	JPL	MC	8800568		OSE
D	8800586			RAIL LEFT	32	L	12	63	JPL	MC	8800568		OSE
C	8800587			PLATE MTG CONNECTOR	32	L	12	63	JPL	MC	8800568		OSE
J	8800588			PRINTED WIRING BD 1 ASSY	32	L	12	63	JPL	MC	8800568		OSE
J	8800589			PRINTED WIRING BOARD #1	32	L	11	63	JPL	MC	8800588		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 57 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
J	8800590			PRINTED WIR BD #2 ASSY	32	L	12	63	JPL	MC	8800568		OSE
J	8800591			PRINTED WIRING BOARD #2	32	L	11	63	JPL	MC	8800590		OSE
J	8800592		A	SCHEM TV CONTROL PANEL	32	L	02	64	JPL	MC	8800568		OSE
A	8800592	PL	A	T.V. CONTROL PNL ASSY	32	L	02	64	JPL	MC	8800592		OSE
J	8800593			PANEL FRONT	32	L	04	64	JPL	MC	8800604		OSE
D	8800594			PLATE BOTTOM	32	L	04	64	JPL	MC	8800604		OSE
J	8800595			PLATE TOP	32	L	04	64	JPL	MC	8800604		OSE
D	8800596			CHANNEL FRONT	32	L	04	64	JPL	MC	8800604		OSE
D	8800597			CHANNEL SIDE	32	L	04	64	JPL	MC	8800604		OSE
D	8800598			CHANNEL SUPPORT	32	L	04	64	JPL	MC	8800604		OSE
D	8800602			CHANNEL REAR	32	L	04	64	JPL	MC	8800604		OSE
J	8800603			FUNCTION PLATE	32	L	04	64	JPL	MC	8800604		OSE
J	8800603			FUNCTION PLATE	32	L	04	64	JPL	MC	8800473		OSE
J	8800604			CROSSBAR SELECTOR #2 ASY	32	L	04	64	JPL	MC	8800605		OSE
J	8800605			MONITOR & TV CONTROL	32	L	01	65	JPL	MC	8800360		OSE
J	8800606			INSTRUMENT CONT CONSOLE	32	L	07	64	JPL	MC	8800360		OSE
D	8800607			SCHEM PRINTED WIR BD #1	32	L	12	63	JPL	MC	8800588		OSE
A	8800607	PL		CB1 TV CONTROL PANEL	32	L	12	63	JPL	MC	8800607		OSE
D	8800608			SCHEM PRINTED WIR BD #2	32	L	12	63	JPL	MC	8800590		OSE
A	8800608	PL		CB2 TV CONTROL PANEL	32	L	12	63	JPL	MC	8800608		OSE
J	8800609		B	SCIENCE ISOLATION	32	L	09	64	JPL	MC	8800359		OSE
J	8800610		C	CASE ISOLATION BOX	32	L	09	64	JPL	MC	8800609		OSE
J	8800611		C	END PLATES CASE	32	L	03	64	JPL	MC	8800609		OSE
D	8800612		A	SIDE PLATE CASE	32	L	10	63	JPL	MC	8800609		OSE
D	8800613		A	CARD FILE END PLATE	32	L	09	64	JPL	MC	8800609		OSE
D	8800614		B	LATCH PLATE CARD FILE	32	L	09	64	JPL	MC	8800609		OSE
J	8800615		C	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800609		OSE
A	8800615	PL		SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800615		OSE
J	8800616		B	PRINTED W ASSY	32	L	09	64	JPL	MC	8800609		OSE
J	8800616		B	PRINTED W ASSY	32	L	09	64	JPL	MC	8800717		OSE
A	8800616	PL	B	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800616		OSE
J	8800617		B	PRINTED W ASSY	32	L	09	64	JPL	MC	8800609		OSE
A	8800617	PL	A	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800617		OSE
4	8800619		C	PW ASSY #2 SCIENCE	32	L	09	64	JPL	MC	8800609		OSE
A	8800619	PL	C	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800619		OSE
J	8800620		C	PRINTED WIRING ASSY #3	32	L	12	63	JPL	MC	8800609		OSE
A	8800620	PL	C	SCIENCE ISOLATION BOX	32	L	12	63	JPL	MC	8800620		OSE
A	8800621	PL		COMPONENT PARTS LIST	32	L	09	64	JPL	MC	8800621		OSE
J	8800622		D	P WIR ASSY #4-1	32	LX	03	64	JPL	MC	8800609		OSE
A	8800622	PL	D	SCIENCE ISOLATION BOX	32	LX	03	64	JPL	MC	8800622		OSE

JPL 1200 JAN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 58 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
J	8800623		C	P WIRING ASSY #5	32	LX	03	64	JPL	MC	8800609		OSE
A	8800623	PL	C	SCIENCE ISOLATION BOX	32	LX	03	64	JPL	MC	8800623		OSE
J	8800624			PRINT WIR ASY #6	32	L	09	63	JPL	MC	8800609		OSE
A	8800624	PL		CIRCUIT CB6 120JB1	32	L	09	63	JPL	MC	8800624		OSE
J	8800625		A	PRINTED WIRING ASSY #6-1	32	L	10	63	JPL	MC	8800609		OSE
A	8800625	PL		CIRCUIT CB6-1 120JB1	32	L	09	63	JPL	MC	8800625		OSE
J	8800626		A	PRINTED WIRING ASSU #6-2	32	L	10	63	JPL	MC	8800609		OSE
A	8800626	PL	A	SCIENCE ISOLATION BOX	32	L	10	63	JPL	MC	8800626		OSE
J	8800627		B	PRINTED WIRING ASY #6-3	32	L	01	64	JPL	MC	8800609		OSE
A	8800627	PL	B	SCIENCE ISO BOX 120JB1	32	L	01	64	JPL	MC	8800627		OSE
J	8800628		B	PW ASSY CB7 & CB7-1	32	L	09	64	JPL	MC	8800609		OSE
A	8800628	PL	A	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800628		OSE
J	8800629		B	PRINTED WIRING ASSY #8	32	L	01	64	JPL	MC	8800609		OSE
A	8800629	PL	A	SCIENCE ISOLATION BOX	32	L	10	63	JPL	MC	8800629		OSE
J	8800630		D	PRINTED W ASSY #9	32	L	09	64	JPL	MC	8800609		OSE
A	8800630	PL	D	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800630		OSE
J	8800631		B	PRINTED WIRING ASSY #10	32	L	01	64	JPL	MC	8800609		OSE
A	8800631	PL	A	SCIENCE ISOLATION BOX	32	L	11	63	JPL	MC	8800631		OSE
J	8800632		B	PRINTED WIRING ASSY #11	32	L	12	63	JPL	MC	8800609		OSE
A	8800632	PL	B	SCIENCE ISOLATION BOX	32	L	12	63	JPL	MC	8800632		OSE
J	8800633			PRINT WIR ASY #12	32	L	09	63	JPL	MC	8800609		OSE
A	8800633	PL		CIRCUIT CB12 120JB1	32	L	09	63	JPL	MC	8800633		OSE
J	8800634			PRINT WIR ASY #13	32	L	09	63	JPL	MC	8800609		OSE
J	8800635			PRINT WIR ASSY #13-1	32	L	09	63	JPL	MC	8800609		OSE
A	8800635	PL		CIRCUIT CB13-1 120JB1	32	L	09	63	JPL	MC	8800635		OSE
4	8800636		B	PRINTED W BOARD	32	L	09	64	JPL	MC	8800616		OSE
4	8800636		B	PRINTED W BOARD	32	L	09	64	JPL	MC	8800617		OSE
4	8800636		B	PRINTED W BOARD	32	L	09	64	JPL	MC	8800618		OSE
4	8800636		B	PRINTED W BOARD	32	L	09	64	JPL	MC	8800810		OSE
[illegible]	[illegible]		[illegible]	PRINTED W BOARD	32	L	09	64	JPL	MC	8800619		OSE
J	8800637		A	PRINTED W BOARD	32	L	09	64	JPL	MC	8800891		OSE
J	8800637		A	PRINTED W BOARD	32	L	09	64	JPL	MC	8800973		OSE
J	8800638		B	PRINTED W BOARD	32	L	09	64	JPL	MC	8800620		OSE
J	8800638		B	PRINTED W BOARD	32	L	09	64	JPL	MC	8800903		OSE
J	8800639			PRINT WIRE BD #4	32	L	09	63	JPL	MC	8800621		OSE
J	8800639			PRINT WIRE BD #4	32	L	09	63	JPL	MC	8800622		OSE
J	8800640		A	PRINTED WIRING BOARD #5	32	L	10	63	JPL	MC	8800623		OSE
J	8800640		A	PRINTED WIRING BOARD #5	32	L	10	63	JPL	MC	8800798		OSE
J	8800641			PRINT WIRE BD #6	32	L	09	63	JPL	MC	8800624		OSE
J	8800641			PRINT WIRE BD #6	32	L	09	63	JPL	MC	8800625		OSE

JPL 1200 JAN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 59 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8800641			PRINT WIR BD #6	32	L	09	63	JPL	MC	8800626		OSE
J	8800641			PRINT WIR BD #6	32	L	09	63	JPL	MC	8800627		OSE
J	8800642			PRINTED WIRING BOARD 7	32	L	08	63	JPL	MC	8800628		OSE
J	8800643			PRINT WIRE BD #8	32	L	09	63	JPL	MC	8800629		OSE
J	8800644			PRINT WIR BD #9	32	L	09	63	JPL	MC	8800630		OSE
J	8800645			PRINT WIRE BD #10	32	L	09	63	JPL	MC	8800631		OSE
J	8800646			PRINT WIR BD #11	32	L	09	63	JPL	MC	8800632		OSE
J	8800646			PRINT WIR BD #11	32	L	09	63	JPL	MC	8800635		OSE
J	8800647			PRINT WIRE BD #12	32	L	09	63	JPL	MC	8800633		OSE
J	8800648			PRINT WIR BD #13	32	L	09	63	JPL	MC	8800634		OSE
J	8800648			PRINT WIR BD #13	32	L	09	63	JPL	MC	8800635		OSE
J	8800649			PRINT WIRE BD EXTENDER	32	L	09	63	JPL	MC	8800650		OSE
J	8800650			PRINT WIR EXTENDER	32	L	09	63	JPL	MC	8800609		OSE
D	8800651			HINGE BRACKET	32	L	09	63	JPL	MC	8800609		OSE
C	8800652		D	CARD EJECTOR	32	L	09	64	JPL	MC			OSE
B	8800653		B	WIRE INSTALLATION	32	L	09	64	JPL	MC	8800609		OSE
J	8800656		A	ISOLATION BOX POWER	32	L	02	64	JPL	MC	8800605		OSE
J	8800657			FRONT ISO BOX PWR SUPPLY	32	L	12	63	JPL	MC	8800656		OSE
J	8800658			DECK ISO BOX PWR SUPPLY	32	L	12	63	JPL	MC	8800656		OSE
D	8800659			REAR PANEL	32	L	12	63	JPL	MC	8800656		OSE
D	8800660			CROSS RAIL ISOLATION BOX	32	L	12	63	JPL	MC	8800656		OSE
J	8800661			SCHEMATIC DIAG ISO BOX	32	L	01	65	JPL	MC	8800656		OSE
J	8800662		A	PRINT WIRE CABLE DRIVE	32	L	01	64	JPL	MC	8800773		OSE
J	8800662		A	PRINT WIRE CABLE DRIVE	32	L	01	64	JPL	MC	8800688		OSE
J	8800663		A	PRINT WIR BD CABL DRIVER	32	L	01	64	JPL	MC	8800662		OSE
J	8800664		A	SCHEM CABLE DRIVER	32	L	01	64	JPL	MC	8800662		OSE
A	8800664	PL	A	PRINT WIRE CABLE DRIVER	32	L	01	64	JPL	MC	8800664		OSE
B	8800665		A	INSULATION BOARD	32	L	03	64	JPL	MC	8800609		OSE
J	8800666		B	JUNCTION BOX ASSEMBLY	32	L	02	64	JPL	MC	8800605		OSE
J	8800667		A	DECK ASSY JUNCTION BOX	32	L	02	64	JPL	MC	8800666		OSE
J	8800668			SHELF CABLE JUNCTION BOX	32	L	10	63	JPL	MC	8800666		OSE
J	8800670		A	RAIL ASSY JUNCTION BOX	32	L	03	64	JPL	MC	8800666		OSE
J	8800671			PANEL FRONT JUNCTION BOX	32	L	10	63	JPL	MC	8800666		OSE
D	8800672			SIDE PANEL	32	L	12	63	JPL	MC	8800656		OSE
J	8800674			ULTRA VIOLET PLANET	32	L	09	64	JPL	MC	8800606		OSE
J	8800675			PANEL FRONT	32	L	09	64	JPL	MC	8800674		OSE
J	8800676			DECK CHASSIS	32	L	09	64	JPL	MC	8800674		OSE
D	8800677			CHANNEL FRONT	32	L	09	64	JPL	MC	8800674		OSE
D	8800678			CHANNEL SIDE	32	L	09	64	JPL	MC	8800674		OSE
D	8800679			CHANNEL SUPPORT	32	L	09	64	JPL	MC	8800674		OSE

JPL 1388 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 60 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	8800680			CHANNEL REAR	32	L	09	64	JPL	MC	8800674		OSE
B	8800681	WL		COUNT RATE ACCUMULATOR	32	L	12	63	JPL	MC	8800568		OSE
J	8800682		A	PW ASSY 3 TV CONTROL	32	L	02	64	JPL	MC	8800568		OSE
J	8800683			PRINTED WIRING BOARD #3	32	L	11	63	JPL	MC	8800682		OSE
D	8800684			SCHEM PRINTED WIR BD #3	32	L	12	63	JPL	MC	8800682		OSE
A	8800684	PL		TV CONTROL PANEL CB3	32	L	12	63	JPL	MC	8800684		OSE
J	8800685			PRINTED WIR BD ASSY #4	32	L	12	63	JPL	MC	8800568		OSE
J	8800686			PRINTED WIRING BOARD #4	32	L	11	63	JPL	MC	8800685		OSE
D	8800687		A	SCHEM PW BD 4	32	L	02	64	JPL	MC	8800685		OSE
A	8800687	PL	A	T.V. CONTROL PNL CB 4	32	L	02	64	JPL	MC	8800687		OSE
J	8800688			COSMIC RAY DUST INDICATR	32	L	01	64	JPL	MC	8800606		OSE
J	8800689			PANEL FRONT COSMIC RAY	32	L	01	64	JPL	MC	8800688		OSE
D	8800690			CHANNEL SIDE	32	L	01	64	JPL	MC	8800688		OSE
D	8800691			CHANNEL SUPPORT COSMIC	32	L	01	64	JPL	MC	8800688		OSE
D	8800692			CHANNEL FRONT	32	L	01	64	JPL	MC	8800688		OSE
D	8800693			CHANNEL REAR COSMIC RAY	32	L	01	64	JPL	MC	8800688		OSE
J	8800696			PLATE TOP COSMIC RAY	32	L	01	64	JPL	MC	8800688		OSE
J	8800697		B	CLOCK DISPLAY UNIT ASSY	32	L	01	65	JPL	MC	8800605		OSE
J	8800698			CHANNEL BOTTOM	32	L	03	64	JPL	MC	8800697		OSE
D	8800699			PLATE TOP	32	L	03	64	JPL	MC	8800697		OSE
D	8800700			CHANNEL SIDE	32	L	03	64	JPL	MC	8800697		OSE
D	8800701			CHANNEL REAR	32	L	03	64	JPL	MC	8800697		OSE
C	8800702			SPACER CARD FILE	32	L	03	64	JPL	MC	8800697		OSE
D	8800703			ANGLE CONNECTOR MTG	32	L	03	64	JPL	MC	8800697		OSE
C	8800704			INSULATION STRIP 3 RELAY	32	L	03	64	JPL	MC	8800697		OSE
J	8800705		A	FRONT PNL CLOCK DISPLAY	32	L	04	64	JPL	MC	8800697		OSE
D	8800706			PLATE BOTTOM	32	L	04	64	JPL	MC	8800473		OSE
J	8800707			CASE ISOLATION BOX	32	L	10	63	JPL	MC	8800717		OSE
D	8800708			END PLATE ISOLATION BOX	32	L	10	63	JPL	MC	8800717		OSE
D	8800710			RAIL ISOLATION BOX	32	L	12	63	JPL	MC	8800656		OSE
B	8800711	WL	A	ISOLATION BOX PWR SUP	32	L	02	64	JPL	MC	8800656		OSE
C	8800715			INSULATION STRIP 4 RELAY	32	L	03	64	JPL	MC	8800697		OSE
J	8800717			ISOLATION BOX ASY 120JB3	32	L	10	63	JPL	MC	8800359		OSE
J	8800719			PRINTED WIRING ASSY 2	32	L	10	63	JPL	MC	8800717		OSE
J	8800720			PRINTED WIRING ASSY 3	32	L	10	63	JPL	MC	8800717		OSE
J	8800722			PRINTED WIRING BOARD 2	32	L	10	63	JPL	MC	8800719		OSE
J	8800723			PRINTED WIRING BOARD 3	32	L	10	63	JPL	MC	8800720		OSE
J	8800724		A	CABLE ASSY ISOLATION	32	L	07	64	JPL	MC	8800717		OSE
C	8800725			SPACER	32	L	10	63	JPL	MC	8800717		OSE
C	8800725			SPACER	32	L	10	63	JPL	MC	8800609		OSE

JPL 1388 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 61 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DESIG. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY CHG.	REFERENCE NUMBER
J	8800726		B	SPECIAL TWO-ROW CONNECTO	32	L	09	64	JPL	MC	8800605		OSE
J	8800727		B	UPPER BRACKET ASSY	32	L	09	64	JPL	MC	8800726		OSE
J	8800728		A	LOWER BRACKET ASSY	32	L	09	64	JPL	MC	8800726		OSE
J	8800729			STANDARD CONNECTOR PANEL	35	L	09	63	JPL	MC	8800606		OSE
J	8800729		A	STANDARD CONN ASSY	32	L	06	64	JPL	MC	8800540		OSE
J	8800730			BRACKET ASSY CONN PANEL	35	L	09	63	JPL	MC	8800729		OSE
J	8800732		A	SIDE RAIL ASSEMBLY	32	L	03	64	JPL	MC	8800546		OSE
B	8800733			ANGLE CHASSIS MOUNTING	32	L	04	64	JPL	MC	8800604		OSE
J	8800734			ART MASTER FUNCT PLATE	32	L	04	64	JPL	MC	8800603		OSE
J	8800737			POWER SUPPLY ASSY 28VDC	32	L	10	63	JPL	MC	8800605		OSE
D	8800738			PANEL	32	L	10	63	JPL	MC	8800737		OSE
C	8800739			SHIELD	32	L	10	63	JPL	MC	8800737		OSE
D	8800740		B	PANEL ASSY DATA AUTOMATN	32	L	05	64	JPL	MC	8800540		OSE
D	8800741			PANEL MACHINING & ENGRAV	32	L	10	63	JPL	MC	8800740		OSE
D	8800742		B	SCHEM DATA AUTOMATION	32	L	05	64	JPL	MC	8800740		OSE
J	8800745			CHASSIS ASSY OUTER BOX 1	32	L	11	63	JPL	MC	8800744		OSE
D	8800746		A	DOOR	32	L	01	64	JPL	MC	8800744		OSE
D	8800746		A	DOOR	32	L	01	64	JPL	MC	8800822		OSE
D	8800746		A	DOOR	32	L	01	64	JPL	MC	8800841		OSE
C	8800747		A	HINGE	32	L	01	64	JPL	MC	8800744		OSE
C	8800747		A	HINGE	32	L	01	64	JPL	MC	8800822		OSE
C	8800747		A	HINGE	32	L	01	64	JPL	MC	8800841		OSE
J	8800748			JUNCTION/PATCH PANEL ASY	32	L	11	63	JPL	MC	8800743		OSE
J	8800749			DECK JUNCTION/PATCH	32	L	11	63	JPL	MC	8800748		OSE
D	8800750		A	BRACE	32	L	01	64	JPL	MC	8800748		OSE
D	8800750		A	BRACE	32	L	01	64	JPL	MC	8800826		OSE
D	8800750		A	BRACE	32	L	01	64	JPL	MC	8800845		OSE
D	8800750		A	BRACE	32	L	01	64	JPL	MC	8800863		OSE
D	8800751		A	STIFFENER	32	L	01	64	JPL	MC	8800826		OSE
D	8800751		A	STIFFENER	32	L	01	64	JPL	MC	8800845		OSE
D	8800751		A	STIFFENER	32	L	01	64	JPL	MC	8800863		OSE
D	8800752		A	RAIL	32	L	01	64	JPL	MC	8800748		OSE
D	8800752		A	RAIL	32	L	01	64	JPL	MC	8800826		OSE
D	8800752		A	RAIL	32	L	01	64	JPL	MC	8800845		OSE
D	8800752		A	RAIL	32	L	01	64	JPL	MC	8800863		OSE
J	8800753			UPPER PANEL JUNCTN/PATCH	32	L	11	63	JPL	MC	8800748		OSE
J	8800754			LOWER PANEL JUNCTN/PATCH	32	L	11	63	JPL	MC	8800748		OSE
J	8800755		A	SIDE PANEL	32	L	01	64	JPL	MC	8800748		OSE
J	8800755		A	SIDE PANEL	32	L	01	64	JPL	MC	8800826		OSE
J	8800755		A	SIDE PANEL	32	L	01	64	JPL	MC	8800845		OSE

JPL 1506 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 62 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DESIG. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY CHG.	REFERENCE NUMBER
J	8800755		A	SIDE PANEL	32	L	01	64	JPL	MC	8800863		OSE
J	8800756		A	PANEL	32	L	01	64	JPL	MC	8800748		OSE
J	8800756		A	PANEL	32	L	01	64	JPL	MC	8800826		OSE
J	8800756		A	PANEL	32	L	01	64	JPL	MC	8800845		OSE
J	8800756		A	PANEL	32	L	01	64	JPL	MC	8800863		OSE
J	8800757		A	PANEL REAR	32	L	01	64	JPL	MC	8800748		OSE
J	8800757		A	PANEL REAR	32	L	01	64	JPL	MC	8800826		OSE
J	8800757		A	PANEL REAR	32	L	01	64	JPL	MC	8800845		OSE
J	8800757		A	PANEL REAR	32	L	01	64	JPL	MC	8800863		OSE
J	8800758		A	BACKING PLATE	32	L	01	64	JPL	MC	8800748		OSE
J	8800758		A	BACKING PLATE	32	L	01	64	JPL	MC	8800826		OSE
J	8800758		A	BACKING PLATE	32	L	01	64	JPL	MC	8800845		OSE
J	8800758		A	BACKING PLATE	32	L	01	64	JPL	MC	8800863		OSE
J	8800759		A	GUIDE WELDMENT	32	L	01	64	JPL	MC	8800745		OSE
J	8800759		A	GUIDE WELDMENT	32	L	01	64	JPL	MC	8800823		OSE
J	8800759		A	GUIDE WELDMENT	32	L	01	64	JPL	MC	8800842		OSE
J	8800761		A	SELF PWR & COMMAND SCHEM	35	LX	01	64	JPL	MC	8800760		OSE
A	8800761	PL	A	SELF POWER & COMMAND	35	L	01	64	JPL	MC	8800761		OSE
B	8800762			PIN GUIDE	32	L	09	63	JPL	MC	8800556		OSE
J	8800763			CONNECTOR PLATE SUBASSY	34	L	03	64	JPL	MC	8800566		OSE
B	8800765	WL	B	JUNCTION BOX	32	L	05	64	JPL	MC	8800666		OSE
C	8800766			SPACER DECK	32	L	03	64	JPL	MC	8800697		OSE
J	8800767			VISICORDER AMPL ASSY	32	L	11	63	JPL	MC	8800605		OSE
J	8800768			CHASSIS VISICORDER AMPL	32	L	11	63	JPL	MC	8800767		OSE
J	8800769			WIR DGM VISICORDER AMPL	32	L	11	63	JPL	MC	8800767		OSE
D	8800771			COMPONENT BOARD ASSY 1	34	L	03	64	JPL	MC	8800763		OSE
C	8800772			BRACKET ISOLATION BOX	32	L	10	63	JPL	MC	8800717		OSE
J	8800773			PANEL ASSY	32	L	02	64	JPL	MC	8800606		OSE
J	8800774			PANEL FRONT	32	L	02	64	JPL	MC	8800773		OSE
[illegible]	8800775			CHASSIS DECK	32	L	02	64	JPL	MC	8800773		OSE
D	8800776			CROSS RAIL	32	L	02	64	JPL	MC	8800773		OSE
D	8800777			SIDE RAIL	32	L	02	64	JPL	MC	8800773		OSE
D	8800778			CHANNEL REAR	32	L	02	64	JPL	MC	8800773		OSE
J	8800779			SCHEM SUB SYSTEM COMMAND	32	L	02	64	JPL	MC	8800773		OSE
D	8800781			OUTER BOX #1 INSTL	32	L	11	63	JPL	MC	8800743		OSE
J	8800782		B	CHASSIS ASSY STIMULUS	32	L	09	64	JPL	MC	8800606		OSE
J	8800784		A	FRONT PANEL STIMULUS	32	L	07	64	JPL	MC	8800793		OSE
J	8800785			TRAY WELDMENT	32	L	12	63	JPL	MC	8800793		OSE
C	8800786			COVER	32	L	12	63	JPL	MC	8800782		OSE
C	8800786			COVER	32	L	12	63	JPL	MC	8800792		OSE

JPL 1506 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 63 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	8800787			HINGE ASSY	32	L	12	63	JPL	MC	8800782		OSE
C	8800787			HINGE ASSY	32	L	12	63	JPL	MC	8800792		OSE
J	8800788		B	MOUNTING PLATE COMPONENT	32	L	09	64	JPL	MC	8800793		OSE
J	8800789		A	SCHEMATIC STIMULUS CONT	32	L	09	64	JPL	MC	8800782		OSE
B	8800790	WL		STIMULUS CONTROL	32	L	09	64	JPL	MC	8800782		OSE
J	8800792		A	CHASSIS ASSY STIMULUS	32	L	07	64	JPL	MC	8800359		OSE
J	8800793		B	PANEL ASSY FRONT STIMUL	32	L	09	64	JPL	MC	8800782		OSE
J	8800794		A	FRONT PNL STIMULUS CONT	32	L	07	64	JPL	MC	8800792		OSE
B	8800795	WL		STIMULUS CONTROL	32	L	07	64	JPL	MC	8800792		OSE
J	8800798			PRINTED WIRING ASSY #14	32	L	10	63	JPL	MC	8800609		OSE
A	8800798	PL		SCIENCE ISOLATION BOX	32	L	10	63	JPL	MC	880798		OSE
J	8800799		A	SCHEMATIC STIMULUS	32	L	07	64	JPL	MC	8800792		OSE
J	8800802			DECK CHASSIS ION CHAMBER	34	L	01	64	JPL	MC	8800764		OSE
J	8800803			FRONT PANEL CHASSIS	34	L	01	64	JPL	MC	8800764		OSE
D	8800804			SIDE PANEL CHASSIS	34	L	01	64	JPL	MC	8800764		OSE
D	8800805			RAIL CHASSIS ION CHAMBER	34	L	01	64	JPL	MC	8800764		OSE
D	8800806			CROSS RAIL CHASSIS	34	L	01	64	JPL	MC	8800764		OSE
D	8800807			REAR PANEL CHASSIS	34	L	01	64	JPL	MC	8800764		OSE
B	8800808	WL		WIRE LIST ION CHAMBER	32	L	01	65	JPL	MC	8800764		OSE
J	8800810		A	CIRCUIT BD #1-3 ASSY	32	L	09	64	JPL	MC	8800609		OSE
A	8800810	PL	A	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800810		OSE
B	8800811	WL		STIMULUS CONT PANEL ASSY	32	L	09	64	JPL	MC	8800793		OSE
J	8800812			RACK ASSY STIMULUS PWR	32	L	01	65	JPL	MC	8800360		OSE
J	8800813			RACK CABINET STIMULUS	32	L	01	65	JPL	MC	8800812		OSE
B	8800818	WL		WIRE LIST COMPUTER	32	L	01	65	JPL	MC	8800498		OSE
D	8800819			SPECIAL PULSE GENERATOR	35	L	01	64	JPL	MC			OSE
C	8800820			SCHEM SPECIAL PULSE GEN	35	L	01	64	JPL	MC	8800819		OSE
J	8800823			CHASSIS ASSY	32	L	01	64	JPL	MC	8800822		OSE
J	8800826			JUNCTION-PATCH PANEL 2	32	L	01	64	JPL	MC	8800821		OSE
J	8800827			DECK	32	L	01	64	JPL	MC	8800826		OSE
J	8800831			UPPER PANEL	32	L	01	64	JPL	MC	8800826		OSE
J	8800832			LOWER PANEL	32	L	01	64	JPL	MC	8800826		OSE
D	8800838			OUTER BOX PANEL 2 INSTL	32	L	01	64	JPL	MC	8800821		OSE
D	8800841			OUTER BOX PANEL 3 ASSY	32	L	01	64	JPL	MC	8800857		OSE
J	8800842			CHASSIS ASSY	32	L	01	64	JPL	MC	8800841		OSE
J	8800845			JUNCTION-PATCH PANEL 3	32	L	01	64	JPL	MC	8800840		OSE
J	8800846			DECK	32	L	01	64	JPL	MC	8800845		OSE
J	8800850			UPPER PANEL	32	L	01	64	JPL	MC	8800845		OSE
J	8800851			LOWER PANEL	32	L	01	64	JPL	MC	8800845		OSE
D	8800857			OUTER BOX PANEL 3&4 INST	32	L	01	64	JPL	MC	8800840		OSE

JPL 1365 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 64 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	8800857			OUTER BOX PANEL 3&4 INST	32	L	01	64	JPL	MC	8800858		OSE
J	8800863			JUNCTION-PATCH PANEL 4	32	L	01	64	JPL	MC	8800858		OSE
J	8800864			DECK	32	L	01	64	JPL	MC	8800863		OSE
J	8800868			UPPER PANEL	32	L	01	64	JPL	MC	8800863		OSE
J	8800869			LOWER PANEL	32	L	01	64	JPL	MC	8800863		OSE
B	8800876	WL	A	JUNCTION BOX 120RC6A10	32	L	03	64	JPL	MC	8800546		OSE
J	8800887			CB ASSY SPECIAL INTERUPT	32	L	03	64	JPL	MC	8800508		OSE
J	8800891		A	PRINTED W ASSEMBLY #2-1	32	L	09	64	JPL	MC	8800609		OSE
A	8800891	PL	A	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800891		OSE
C	8800892		B	PLATE MOUNTING	32	L	09	64	JPL	MC	8800726		OSE
B	8800902			W LIST MANUAL SYS TEST	32	L	05	64	JPL	MC	8800908		OSE
J	8800903		A	PRINTED W ASSY #3-2	32	L	09	64	JPL	MC	8800609		OSE
A	8800903	PL	A	SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800903		OSE
D	8800906		B	CROSSBAR TERM PANEL ASSY	34	L	08	64	JPL	MC	8800605		OSE
D	8800907		B	PANEL CROSSBAR TERMINAL	34	L	08	64	JPL	MC	8800906		OSE
J	8800908			PLUG BOARD ASSY	32	L	04	64	JPL	MC	8800552		OSE
B	8800909			SPACER	32	L	04	64	JPL	MC	8800473		OSE
C	8800910			NAMEPLATE	32	L	04	64	JPL	MC	8800545		OSE
C	8800910			NAMEPLATE	32	L	04	64	JPL	MC	8800605		OSE
C	8800910			NAMEPLATE	32	L	04	64	JPL	MC	8800540		OSE
C	8800910			NAMEPLATE	32	L	04	64	JPL	MC	8800606		OSE
C	8800910			NAMEPLATE	32	L	04	64	JPL	MC	8800812		OSE
C	8800911			BRACKET METER	32	L	07	64	JPL	MC	8800793		OSE
D	8800912			TB ASSY ISOLATION XFMR	32	L	07	64	JPL	MC	8800792		OSE
D	8800913			TB ASSY ISOLATION XFMR	32	L	07	64	JPL	MC	8800782		OSE
C	8800914			INSULATOR TERMINAL BOARD	32	L	07	64	JPL	MC	8800782		OSE
C	8800914			INSULATOR TERMINAL BOARD	32	L	07	64	JPL	MC	8800792		OSE
D	8800915			ARTWORK BOARD #15	32	L	09	64	JPL	MC	8800916		OSE
J	8800915			PRINTED W ASSEMBLY	32	L	09	64	JPL	MC	8800609		OSE
A	8800916	PL		SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800916		OSE
J	8800917			SCHEMATIC DIAGRAM	32	L	09	64	JPL	MC	8800919		OSE
J	8800918			PANEL COIL NULLING	32	L	09	64	JPL	MC	8800919		OSE
J	8800919			COIL NULLING PANEL	32	L	09	64	JPL	MC	8800812		OSE
J	8800920			SCHEMATIC DIAGRAM	32	L	09	64	JPL	MC	8800923		OSE
J	8800921			CHASSIS COIL NULLING	32	L	09	64	JPL	MC	8800923		OSE
C	8800922			INSULATOR CONNECTOR	32	L	09	64	JPL	MC	8800923		OSE
J	8800923			COIL NULLING CHASSIS	32	L	09	64	JPL	MC	8800812		OSE
D	8800930			SCHEMATIC UV STIMULUS	32	L	07	64	JPL	MC	8800934		OSE
J	8800931			CHASSIS POWER SUPPLY	32	L	07	64	JPL	MC	8800934		OSE
J	8800932			CHASSIS TRANSFORMER	32	L	07	64	JPL	MC	8800934		OSE

JPL 1365 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 65 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END LTR	TITLE	DESIGN DIV.	DWG STAT	RELEASE DATE NO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CHL	SEQUENCE NUMBER
J	8800934			UV STIMULUS PWR SUPPLY	32	L	07	64	JPL	MC	8800964		OSE
D	8800935			TERMINAL BOARD	32	L	07	64	JPL	MC	8800936		OSE
D	8800936			COMPONENT BOARD ASSY	32	L	07	64	JPL	MC	8800934		OSE
B	8800937	WL		COIL NULLING PANEL	32	L	09	64	JPL	MC	8800919		OSE
B	8800938	LM		COIL NULLING CHASSIS	32	L	09	64	JPL	MC	8800923		OSE
B	8800956	WL		UV STIMULUS POWER SUPPLY	32	L	07	64	JPL	MC	8800934		OSE
C	8800959			INSULATOR CONNECTOR	32	L	01	65	JPL	MC	8800961		OSE
J	8800960			PANEL CONNECTOR	32	L	01	65	JPL	MC	8800961		OSE
J	8800961			PANEL CONNECTOR ASSY	32	L	01	65	JPL	MC	8800812		OSE
B	8800962	WL		DRY NITROGEN REGULATOR	32	L	07	64	JPL	MC	8800964		OSE
4	8800963			CHASSIS REG DRY NITROGEN	32	L	07	64	JPL	MC	8800964		OSE
J	8800964			REG DRY NITROGEN ASSY	32	L	07	64	JPL	MC	8800812		OSE
C	8800965			SPACER	32	L	07	64	JPL	MC	8800545		OSE
D	8800966			PANEL DC VARIABLE PWR	32	L	07	64	JPL	MC	8800967		OSE
J	8800967			DC VARIABLE PWR SUPPLY	32	L	07	64	JPL	MC	8800545		OSE
D	8800968			PNL STIMULUS INDICATOR	32	L	07	64	JPL	MC	8800970		OSE
J	8800969			SCHEMATIC DIAG STIMULUS	32	L	07	64	JPL	MC	8800970		OSE
J	8800970			STIMULUS INDICATOR PNL	32	L	07	64	JPL	MC	8800606		OSE
C	8800971			BRACKET TERMINAL	32	L	07	64	JPL	MC	8800970		OSE
D	8800972			PANEL BLANK	32	L	07	64	JPL	MC	8800545		OSE
J	8800973			PRINTED W ASSEMBLY #2-0	32	L	09	64	JPL	MC	8800609		OSE
A	8800973	PL		SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800973		OSE
C	8800975			PLATE SPACER	32	L	01	65	JPL	MC	8800812		OSE
D	8800976			ANGLE CHASSIS MOUNTING	32	L	01	65	JPL	MC	8800813		OSE
C	8800977			BRACKET RELAY	32	L	09	64	JPL	MC	8800674		OSE
J	8800978			TALLY CONTROL ASSEMBLY	32	L	07	64	JPL	MC	8800540		OSE
C	8800979			PLATE CONNECTOR MOUNTING	32	L	07	64	JPL	MC	8800978		OSE
D	8800980			PANEL TALLY CONTROL	32	L	07	64	JPL	MC	8800978		OSE
B	8800981	WL		ULTRA VIOLET PLANET	32	L	09	64	JPL	MC	8800674		OSE
J	8800982			ARTWORK BOARD #16	32	L	09	64	JPL	MC	8800983		OSE
J	8800983			PRINTED W ASSY	32	L	09	64	JPL	MC	8800609		OSE
A	8800983	PL		SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800983		OSE
J	8800984			PRINTED W ASSY	32	L	09	64	JPL	MC	8800609		OSE
A	8800984	PL		SCIENCE ISOLATION BOX	32	L	09	64	JPL	MC	8800984		OSE
J	8800985			ARTWORK BOARD #17	32	L	09	64	JPL	MC	8800984		OSE
J	8800986			SCHEMATIC DIAGRAM	32	L	10	64	JPL	MC	8800360		OSE
B	8800987	WL	A	COMPUTER LOGIC #2	32	L	01	65	JPL	MC	8800499		OSE
B	8800988	WL	A	TELEVISION CONTROL PANEL	32	L	01	65	JPL	MC	8800568		OSE
C	8800989			BRACKET CONNECTOR MOUNT	32	L	03	65	JPL	MC	8800540		OSE
D	8800990			SCHEMATIC DATA ENCODER	32	L	02	65	JPL	MC	8800360		OSE

JPL 1200 JUN 59

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 66 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END LTR	TITLE	DESIGN DIV.	DWG STAT	RELEASE DATE NO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CHL	SEQUENCE NUMBER
A	8800990	PL		DATA ENCODER SIMULATOR	32	L	02	65	JPL	MC	8800990		OSE
J	8900593			GSE POWER JUNCTION	35	L	01	63	JPL	MC	8900470		OSE
J	8900642		A	CONSOLE CABLE ASSY	34	L	06	63	JPL	MC	8200741		OSE
J	8900643			CABLING BLOCK DIAGRAM	34	L	04	64	JPL	MC	8902256		OSE
J	8900644			WIRING SCHEM DIAGRAM	34	L	04	64	JPL	MC	8900643		OSE
D	8900645			CABLING BLOCK DIAGRAM	34	L	04	64	JPL	MC	8902330		OSE
J	8900646			POWER GSE STS GROUP 2	34	L	04	64	JPL	MC	8900645		OSE
C	8900647			INTERCONN CABLE BLOK DGM	35	L	04	64	JPL	MC			OSE
C	8900648			INTERCONN CABLE BLOK DGM	35	L	04	64	JPL	MC			OSE
J	8900650			SW LOGIC 42-04	35	L	03	64	JPL	MC			OSE
J	8900651			AUX PWR SUPP 42-05	35	L	03	64	JPL	MC			OSE
J	8900652			TEST MONITOR ASSY 42-03	35	L	03	64	JPL	MC			OSE
D	8901070		A	UMBILICAL ADAPTER	31	L	12	63	JPL	MC	8901094		OSE
B	8901071			CABLE ASSY 101A3	31	L	12	63	JPL	MC	8901070		OSE
B	8901095			CABLE ASSY 13A9	31	L	12	63	JPL	MC	8901094		OSE
B	8901096			CABLE ASSY 13A10	31	L	12	63	JPL	MC	8901094		OSE
B	8901098			CABLE ASSY 13T11	31	L	12	63	JPL	MC	8901094		OSE
J	8901111		A	FILTER REG ASSEMBLY	31	L	07	64	JPL	MC			OSE
J	8901529		C	CONTAINER ASSY SUBASSY	35	L	07	64	JPL	MC	8901975		OSE
J	8901543		D	HAND & ASSY FIXTURE ASSY	35	L	05	64	JPL	MC	8902116		OSE
J	8901544		D	END PLATE ASSY HANDEASSY	35	LX	05	64	JPL	MC	8901543		OSE
J	8901544		D	END PLATE ASSY HANDEASSY	35	LX	05	64	JPL	MC	8901908		OSE
J	8901544		D	END PLATE ASSY HANDEASSY	35	LX	05	64	JPL	MC	8901910		OSE
D	8901545		A	RAIL HANDL & ASY FIXTURE	35	L	08	63	JPL	MC	8901543		OSE
D	8901545		A	RAIL HANDL & ASY FIXTURE	35	L	08	63	JPL	MC	8901908		OSE
D	8901545		A	RAIL HANDL & ASY FIXTURE	35	L	08	63	JPL	MC	8901910		OSE
J	8901550		C	CABLE DIAG OSE	31	L	07	64	JPL	MC			OSE
D	8901552		A	WIRING DIAG UMBILICAL	31	L	11	64	JPL	MC	8902118		OSE
J	8901553		D	UMBILICAL JUNCTION BOX	31	L	07	64	JPL	MC	8901550		OSE
J	8901554		D	W DIAG UMBILICAL	31	L	07	64	JPL	MC	8901553		OSE
B	8901560		B	CABLE ASSY 102WT	31	L	08	64	JPL	MC	8901550		OSE
B	8901561		B	CABLE ASSY 102WT1	31	L	08	64	JPL	MC	8901550		OSE
B	8901562		B	CABLE ASSY 102W1A	31	L	08	64	JPL	MC	8901550		OSE
B	8901563		A	CABLE ASSY 102WV1A	31	L	08	64	JPL	MC	8901550		OSE
B	8901564		B	CABLE ASSY 102W2	31	L	08	64	JPL	MC	8901550		OSE
B	8901565		B	CABLE ASSY 102WT2	31	L	08	64	JPL	MC	8901550		OSE
B	8901566		B	CABLE ASSY 102W2A	31	L	08	64	JPL	MC	8901550		OSE
B	8901567		A	CABLE ASSY 102WV2A	31	L	08	64	JPL	MC	8901550		OSE
B	8901568			CABLE ASSY 102W3	31	L	11	63	JPL	MC	8901550		OSE
B	8901569		A	CABLE ASSY 102WT3	31	L	08	64	JPL	MC	8901550		OSE

JPL 1200 JUN 59

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 67 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF SHL	SEQUENCE NUMBER
B	8901570		A	CABLE ASSY 102W3A	31	L	08	64	JPL	MC	8901550		OSE
B	8901571		A	CABLE ASSY 102WV3A	31	L	08	64	JPL	MC	8901550		OSE
B	8901572			CABLE ASSY 102W4	31	L	11	63	JPL	MC	8901550		OSE
B	8901573		A	CABLE ASSY 102WT4	31	L	08	64	JPL	MC	8901550		OSE
B	8901574		A	CABLE ASSY 102W4A	31	L	08	64	JPL	MC	8901550		OSE
B	8901575		A	CABLE ASSY 102WV4A	31	L	08	64	JPL	MC	8901550		OSE
B	8901576			CABLE ASSY 102W5	31	L	11	63	JPL	MC	8901550		OSE
B	8901577			CABLE ASSY 102W6	31	L	11	63	JPL	MC	8901550		OSE
B	8901578			CABLE ASSY 102W7	31	L	11	63	JPL	MC	8901550		OSE
B	8901579		A	CABLE ASSY 102W8	31	L	03	64	JPL	MC	8901550		OSE
B	8901580		A	CABLE ASSY 102W9	31	L	03	64	JPL	MC	8901550		OSE
B	8901581		A	CABLE ASSY 102W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901582		A	CABLE ASSY 102W10	31	L	03	64	JPL	MC	8901550		OSE
B	8901585		B	CABLE ASSY 103W1	31	L	08	64	JPL	MC	8901550		OSE
B	8901586		B	CABLE ASSY 103WT1	31	L	08	64	JPL	MC	8901586		OSE
B	8901587		B	CABLE ASSY 103W1A	31	L	08	64	JPL	MC	8901550		OSE
B	8901588		A	CABLE ASSY 103WV1A	31	L	08	64	JPL	MC	8901550		OSE
B	8901589		A	CABLE ASSY 103W2	31	L	03	64	JPL	MC	8901550		OSE
B	8901590		A	CABLE ASSY 103W3	31	L	03	64	JPL	MC	8901550		OSE
B	8901591		A	CABLE ASSY 103W4	31	L	03	64	JPL	MC	8901550		OSE
B	8901592		A	CABLE ASSY 103W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901593		A	CABLE ASSY 104WV11	31	L	09	64	JPL	MC	8901550		OSE
B	8901594		A	CABLE ASSY 104WV11A	31	L	09	64	JPL	MC	8901550		OSE
B	8901595		B	CABLE ASSY 104W1	31	L	09	64	JPL	MC	8901550		OSE
B	8901596		B	CABLE ASSY 104WT1	31	L	09	64	JPL	MC	8901550		OSE
B	8901597		B	CABLE ASSY 104W2	31	L	09	64	JPL	MC	8901550		OSE
B	8901598		B	CABLE ASSY 104WT2	31	L	09	64	JPL	MC	8901550		OSE
B	8901599		B	CABLE ASSY 104W3	31	L	09	64	JPL	MC	8901550		OSE
B	8901600		B	CABLE ASSY 104WT3	31	L	09	64	JPL	MC	8901550		OSE
B	8901601		B	CABLE ASSY 104W4	31	L	09	64	JPL	MC	8901550		OSE
B	8901602		B	CABLE ASSY 104WT4	31	L	09	64	JPL	MC	8901550		OSE
B	8901603		B	CABLE ASSY 104W4A	31	L	09	64	JPL	MC	8901550		OSE
B	8901605		B	CABLE ASSY 104W5	31	L	09	64	JPL	MC	8901550		OSE
B	8901606		B	CABLE ASSY 104WT5	31	L	09	64	JPL	MC	8901550		OSE
B	8901607		B	CABLE ASSY 104W5A	31	L	09	64	JPL	MC	8901550		OSE
B	8901609		B	CABLE ASSY 104W6	31	L	09	64	JPL	MC	8901550		OSE
B	8901610		B	CABLE ASSY 104WT6	31	L	09	64	JPL	MC	8901550		OSE
B	8901611		B	CABLE ASSY 104W6A	31	L	09	64	JPL	MC	8901550		OSE
B	8901612		A	CABLE ASSY 104WV6A	31	L	09	64	JPL	MC	8901550		OSE
B	8901613		A	CABLE ASSY 104W7	31	L	03	64	JPL	MC	8901550		OSE

JPL 1500 /VR 69

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 68 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF SHL	SEQUENCE NUMBER
B	8901614		A	CABLE ASSY 104WT7	31	L	03	64	JPL	MC	8901550		OSE
B	8901615		A	CABLE ASSY 104W7A	31	L	03	64	JPL	MC	8901550		OSE
B	8901616			CABLE ASSY 104WV7A	31	L	03	64	JPL	MC	8901550		OSE
B	8901617		B	CABLE ASSY 104W8	31	L	08	64	JPL	MC	8901550		OSE
B	8901618		B	CABLE ASSY 104W9	31	L	08	64	JPL	MC	8901550		OSE
B	8901619		A	CABLE ASSY 104W10	31	L	03	64	JPL	MC	8901550		OSE
B	8901620		A	CABLE ASSY 104W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901621		B	CABLE ASSY 104W11A	31	L	09	64	JPL	MC	8901550		OSE
B	8901622		A	CABLE ASSY 104WC1	31	L	08	64	JPL	MC	8902563		OSE
B	8901623		A	CABLE ASSY 104WC2	31	L	08	64	JPL	MC	8902563		OSE
B	8901624		A	CABLE ASSY 104WC3	31	L	09	64	JPL	MC	8902563		OSE
B	8901625		A	CABLE ASSY 104WC4	31	L	08	64	JPL	MC	8902563		OSE
B	8901626		B	CABLE ASSY 104WC5	31	L	09	64	JPL	MC	8902563		OSE
B	8901627		A	CABLE ASSY 104WC6	31	L	09	64	JPL	MC	8902563		OSE
B	8901628		B	CABLE ASSY 104W12	31	L	09	64	JPL	MC	8901550		OSE
B	8901629		B	CABLE ASSY 104WT12	31	L	09	64	JPL	MC	8901550		OSE
B	8901630		B	CABLE ASSY 105 W1	31	L	08	64	JPL	MC	8901550		OSE
B	8901631		B	CABLE ASSY 105WT1	31	L	08	64	JPL	MC	8901550		OSE
B	8901632		B	CABLE ASSY 105W2	31	L	08	64	JPL	MC	8901550		OSE
B	8901633		B	CABLE ASSY 105WT2	31	L	08	64	JPL	MC	8901550		OSE
B	8901634		B	CABLE ASSY 105W2A	31	L	08	64	JPL	MC	8901550		OSE
B	8901635		A	CABLE ASSY 105WV2A	31	L	08	64	JPL	MC	8901550		OSE
B	8901636		B	CABLE ASSY 105W2B	31	L	08	64	JPL	MC	8901550		OSE
B	8901637		B	CABLE ASSY 105WV2B	31	L	12	64	JPL	MC	8901550		OSE
B	8901638		B	CABLE ASSY 105W3	31	L	08	64	JPL	MC	8901550		OSE
B	8901639		B	CABLE ASSY 105WT3	31	L	08	64	JPL	MC	8901550		OSE
B	8901640		B	CABLE ASSY 105W3A	31	L	08	64	JPL	MC	8901550		OSE
B	8901641		A	CABLE ASSY 105WV3A	31	L	08	64	JPL	MC	8901550		OSE
B	8901642		B	CABLE ASSY 105W3B	31	L	08	64	JPL	MC	8901550		OSE
B	8901643		B	CABLE ASSY 105WV3B	31	L	12	64	JPL	MC	8901550		OSE
B	8901644		A	CABLE ASSY 105W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901645		B	CABLE ASSY 105WR1	31	L	08	64	JPL	MC	8901550		OSE
B	8901646		B	CABLE ASSY 105WR2	31	L	08	64	JPL	MC	8901550		OSE
B	8901647		B	CABLE ASSY 105WR3	31	L	08	64	JPL	MC	8901550		OSE
B	8901648		A	CABLE ASSY 105WV4	31	L	08	64	JPL	MC	8901550		OSE
B	8901649		A	CABLE ASSY 105WV4A	31	L	08	64	JPL	MC	8901550		OSE
B	8901650		A	CABLE ASSY 106W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901651		A	CABLE ASSY 106WT1	31	L	03	64	JPL	MC	8901550		OSE
B	8901652		A	CABLE ASSY 106W2	31	L	03	64	JPL	MC	8901550		OSE
B	8901653		A	CABLE ASSY 106WT2	31	L	03	64	JPL	MC	8901550		OSE

JPL 1500 /VR 69

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 69 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DESIG. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
B	8901654		A	CABLE ASSY 106W2A	31	L	03	64	JPL	MC	8901550		OSE
B	8901655			CABLE ASSY 106WV2A	31	L	03	64	JPL	MC	8901550		OSE
B	8901656		A	CABLE ASSY 106W3	31	L	03	64	JPL	MC	8901550		OSE
B	8901657		A	CABLE ASSY 106W4	31	L	03	64	JPL	MC	8901550		OSE
B	8901658			CABLE ASSY 106W5	31	L	11	63	JPL	MC	8901550		OSE
B	8901659			CABLE ASSY 106WT5	31	L	01	64	JPL	MC	8901550		OSE
B	8901660		A	CABLE ASSY 106W6	31	L	03	64	JPL	MC	8901550		OSE
B	8901661		A	CABLE ASSY 106W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901665		A	CABLE ASSY 107W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901666		A	CABLE ASSY 107WT1	31	L	03	64	JPL	MC	8901550		OSE
B	8901667		A	CABLE ASSY 107W2	31	L	03	64	JPL	MC	8901550		OSE
B	8901668		A	CABLE ASSY 107WT2	31	L	03	64	JPL	MC	8901550		OSE
B	8901669		A	CABLE ASSY 107W2A	31	L	03	64	JPL	MC	8901550		OSE
B	8901670			CABLE ASSY 107WV2A	31	L	03	64	JPL	MC	8901550		OSE
B	8901671		A	CABLE ASSY 107W3	31	L	03	64	JPL	MC	8901550		OSE
B	8901672		A	CABLE ASSY 107WT3	31	L	03	64	JPL	MC	8901550		OSE
B	8901673		A	CABLE ASSY 107W3A	31	L	03	64	JPL	MC	8901550		OSE
B	8901674			CABLE ASSY 107WV3A	31	L	03	64	JPL	MC	8901550		OSE
B	8901675		A	CABLE ASSY 107W4	31	L	03	64	JPL	MC	8901550		OSE
B	8901676		A	CABLE ASSY 107WT4	31	L	03	64	JPL	MC	8901550		OSE
B	8901677		A	CABLE ASSY 107W4A	31	L	03	64	JPL	MC	8901550		OSE
B	8901678			CABLE ASSY 107WV4A	31	L	03	64	JPL	MC	8901550		OSE
B	8901679		A	CABLE ASSY 107W5A	31	L	03	64	JPL	MC	8901550		OSE
B	8901680		A	CABLE ASSY 107W6A	31	L	03	64	JPL	MC	8901550		OSE
B	8901681		A	CABLE ASSY 107W7A	31	L	03	64	JPL	MC	8901550		OSE
B	8901682		A	CABLE ASSY 107W8A	31	L	03	64	JPL	MC	8901550		OSE
B	8901683		A	CABLE ASSY 107W9A	31	L	03	64	JPL	MC	8901550		OSE
B	8901684		A	CABLE ASSY 107W10A	31	L	03	64	JPL	MC	8901550		OSE
B	8901685		A	CABLE ASSY 107W11	31	L	03	64	JPL	MC	8901550		OSE
B	8901686		A	CABLE ASSY 107WT11	31	L	03	64	JPL	MC	8901550		OSE
B	8901687		B	CABLE ASSY #107W90	34	L	05	64	JPL	MC	8901550		OSE
B	8901688		A	CABLE ASSY 107W91	31	L	03	64	JPL	MC	8901550		OSE
B	8901690		B	CABLE ASSY 108W1	31	L	09	64	JPL	MC	8901550		OSE
B	8901691		B	CABLE ASSY 108WT1	31	L	09	64	JPL	MC	8901550		OSE
B	8901692		B	CABLE ASSY 108W2	31	L	08	64	JPL	MC	8901550		OSE
B	8901693		B	CABLE ASSEMBLY 108WT2	31	L	08	64	JPL	MC	8901550		OSE
B	8901694		B	CABLE ASSY 108W2A	31	L	08	64	JPL	MC	8901550		OSE
B	8901695		A	CABLE ASSY 108WV2A	31	L	08	64	JPL	MC	8901550		OSE
B	8901696		B	CABLE ASSY 108W3	31	L	08	64	JPL	MC	8901550		OSE
B	8901697		B	CABLE ASSEMBLY 108WT3	31	L	08	64	JPL	MC	8901550		OSE

JPL 1560 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 70 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DESIG. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
B	8901698		B	CABLE ASSY 108W3A	31	L	08	64	JPL	MC	8901550		OSE
B	8901699		A	CABLE ASSY 108WV3A	31	L	08	64	JPL	MC	8901550		OSE
B	8901700		A	CABLE ASSY 108W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901701			CABLE ASSY 108W4	31	L	03	64	JPL	MC	8901550		OSE
B	8901702		A	CABLE ASSY 108W4A	31	L	09	64	JPL	MC	8901550		OSE
B	8901703		A	CABLE ASSY 108W4B	31	L	08	64	JPL	MC	8901550		OSE
B	8901705		A	CABLE ASSY 109W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901706		A	CABLE ASSY 109W1A	31	L	03	64	JPL	MC	8901550		OSE
B	8901707			CABLE ASSY 109WV1A	31	L	03	64	JPL	MC	8901550		OSE
B	8901708		A	CABLE ASSY 109W2	31	L	03	64	JPL	MC	8901550		OSE
B	8901709		A	CABLE ASSY 109W2A	31	L	03	64	JPL	MC	8901550		OSE
B	8901710			CABLE ASSY 109WV2A	31	L	03	64	JPL	MC	8901550		OSE
B	8901711		A	CABLE ASSY 109W3	31	L	03	64	JPL	MC	8901550		OSE
B	8901712		A	CABLE ASSY 109W3A	31	L	03	64	JPL	MC	8901550		OSE
B	8901713			CABLE ASSY 109WV3A	31	L	03	64	JPL	MC	8901550		OSE
B	8901714		B	CABLE ASSY 109W4	31	L	11	64	JPL	MC	8901550		OSE
B	8901715		B	CABLE ASSY 109W4A	31	L	11	64	JPL	MC	8901550		OSE
B	8901716		A	CABLE ASSY 109WV4A	31	L	11	64	JPL	MC	8901550		OSE
B	8901717			CABLE ASSY 109W5	31	L	11	63	JPL	MC	8901550		OSE
B	8901718			CABLE ASSY 109W5A	31	L	11	63	JPL	MC	8901550		OSE
B	8901719		A	CABLE ASSY 109WV5A	31	L	08	64	JPL	MC	8901550		OSE
B	8901723		A	CABLE ASSEMBLY 109WT5	31	L	08	64	JPL	MC	8901550		OSE
B	8901724		A	CABLE ASSY 109WV7A	31	L	11	64	JPL	MC	8901550		OSE
B	8901725		A	CABLE ASSY 116W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901726		A	CABLE ASSY 116WT1	31	L	03	64	JPL	MC	8901550		OSE
B	8901727			CABLE ASSY 116W2	31	L	11	63	JPL	MC	8901550		OSE
B	8901728			CABLE ASSY 116WT2	31	L	01	64	JPL	MC	8901550		OSE
B	8901729		A	CABLE ASSY 116W3	31	L	03	64	JPL	MC	8901550		OSE
B	8901730		A	CABLE ASSY 116WT3	31	L	03	64	JPL	MC	8901550		OSE
B	8901731		A	CABLE ASSY 116W3A	31	L	03	64	JPL	MC	8901550		OSE
B	8901732			CABLE ASSY 116WV3A	31	L	03	64	JPL	MC	8901550		OSE
B	8901733		A	CABLE ASSY 116W4	31	L	03	64	JPL	MC	8901550		OSE
B	8901734		A	CABLE ASSY 116W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901735		A	CABLE ASSY 109W7	31	L	11	64	JPL	MC	8901550		OSE
B	8901736		A	CALBE ASSY 109W7A	31	L	11	64	JPL	MC	8901550		OSE
B	8901737		A	CABLE ASSY 109W78	31	L	06	64	JPL	MC	8901550		OSE
B	8901738			CABLE ASSY 120WV10	31	L	01	64	JPL	MC	8901550		OSE
B	8901740		A	CABLE ASSY 120W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901741		A	CABLE ASSY 120WT1	31	L	03	64	JPL	MC	8901550		OSE
B	8901742		B	CABLE ASSY 120W2A	31	L	05	64	JPL	MC	8901550		OSE

JPL 1560 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 71 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
B	8901743		A	CABLE ASSY 120W3A	31	L	03	64	JPL	MC	8901550		OSE
B	8901744		A	CABLE ASSY 120W4A	31	L	03	64	JPL	MC	8901550		OSE
B	8901745		B	CABLE ASSY 120W5A	31	L	05	64	JPL	MC	8901550		OSE
B	8901746		B	CABLE ASSY 120W6A	31	L	05	64	JPL	MC	8901550		OSE
B	8901747		B	CABLE ASSY 120W7A	31	L	05	64	JPL	MC	8901550		OSE
B	8901748		B	CABLE ASSY 120W8A	31	L	05	64	JPL	MC	8901550		OSE
B	8901749		A	CABLE ASSY 120W9	31	L	03	64	JPL	MC	8901550		OSE
B	8901750		A	CABLE ASSY 120WT9	31	L	03	64	JPL	MC	8901550		OSE
B	8901751		A	CABLE ASSY 120W9A	31	L	03	64	JPL	MC	8901550		OSE
B	8901752		A	CABLE ASSY 120W10A	31	L	03	64	JPL	MC	8901550		OSE
B	8901753		A	CABLE ASSY 120W11	31	L	03	64	JPL	MC	8901550		OSE
B	8901754		A	CABLE ASSY 120WT11	31	L	03	64	JPL	MC	8901550		OSE
B	8901755		B	CABLE ASSY 120W11A	31	L	05	64	JPL	MC	8901550		OSE
B	8901756			CABLE ASSY 120WV11A	31	L	03	64	JPL	MC	8901550		OSE
B	8901757		A	CABLE ASSY 120W12	31	L	03	64	JPL	MC	8901550		OSE
B	8901758		A	CABLE ASSY 120WT12	31	L	03	64	JPL	MC	8901550		OSE
B	8901759		A	CABLE ASSY 120W12A	31	L	03	64	JPL	MC	8901550		OSE
B	8901760			CABLE ASSY 120WV12A	31	L	03	64	JPL	MC	8901550		OSE
B	8901761		A	CABLE ASSY 120W13	31	L	03	64	JPL	MC	8901550		OSE
B	8901762		A	CABLE ASSY 120WT13	31	L	03	64	JPL	MC	8901550		OSE
B	8901763		A	CABLE ASSY 120W12A	31	L	03	64	JPL	MC	8901550		OSE
B	8901764			CABLE ASSY 120WV13A	31	L	03	64	JPL	MC	8901550		OSE
B	8901765		A	CABLE ASSY 120W14	31	L	03	64	JPL	MC	8901550		OSE
B	8901766		A	CABLE ASSY 120WT14	31	L	03	64	JPL	MC	8901550		OSE
B	8901767		A	CABLE ASSY 120W14A	31	L	03	64	JPL	MC	8901550		OSE
B	8901768			CABLE ASSY 120WV14A	31	L	03	64	JPL	MC	8901550		OSE
B	8901769			CABLE ASSY 120W15	31	L	12	63	JPL	MC	8901550		OSE
B	8901770			CABLE ASSY 120WT15	31	L	01	64	JPL	MC	8901550		OSE
B	8901771			CABLE ASSY 120W15A	31	L	12	63	JPL	MC	8901550		OSE
B	8901772			CABLE ASSY 120WV15A	31	L	01	64	JPL	MC	8901550		OSE
B	8901773			CABLE ASSY 120W16	31	L	12	63	JPL	MC	8901550		OSE
B	8901774			CABLE ASSY 120WT16	31	L	01	64	JPL	MC	8901550		OSE
B	8901775			CABLE ASSY 120W16A	31	L	12	63	JPL	MC	8901550		OSE
B	8901776			CABLE ASSY 120WV16A	31	L	01	64	JPL	MC	8901550		OSE
B	8901777			CABLE ASSY 120W17	31	L	12	63	JPL	MC	8901550		OSE
B	8901778			CABLE ASSY 120WT17	31	L	01	64	JPL	MC	8901550		OSE
B	8901779			CABLE ASSY 120W17A	31	L	12	63	JPL	MC	8901550		OSE
B	8901780			CABLE ASSY 120WV17A	31	L	01	64	JPL	MC	8901550		OSE
B	8901781		A	CABLE ASSY 120W18	31	L	03	64	JPL	MC	8901550		OSE
B	8901783		A	CABLE ASSY 120W90	31	L	03	64	JPL	MC	8901550		OSE

JPL 1200 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 72 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
B	8901784			CABLE ASSY 120WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8901785		A	CABLE ASSY 120W91	31	L	03	64	JPL	MC	8901550		OSE
B	8901786			CABLE ASSY 120WX91	31	L	05	64	JPL	MC	8901550		OSE
B	8901789		A	CABLE ASSY 120W93	31	L	03	64	JPL	MC	8901550		OSE
B	8901791		A	CABLE ASSY 120W94	31	L	03	64	JPL	MC	8901550		OSE
B	8901792			CABLE ASSY 120WX94	31	L	05	64	JPL	MC	8901550		OSE
B	8901793			CABLE ASSY 120W19	31	L	03	64	JPL	MC	8901550		OSE
B	8901794		A	CABLE ASSY 195W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901795		A	CABLE ASSY 196W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901796		A	CABLE ASSY 196W2	31	L	03	64	JPL	MC	8901550		OSE
B	8901797		A	CABLE ASSY 196W3	31	L	03	64	JPL	MC	8901550		OSE
B	8901798		A	CABLE ASSY 196W4	31	L	03	64	JPL	MC	8901550		OSE
B	8901799		A	CABLE ASSY 196W5	31	L	03	64	JPL	MC	8901550		OSE
B	8901800		A	CABLE ASSY 196W6	31	L	03	64	JPL	MC	8901550		OSE
B	8901801		A	CABLE ASSY 196W7	31	L	03	64	JPL	MC	8901550		OSE
B	8901802			CABLE ASSY 196W8	31	L	03	64	JPL	MC	8901550		OSE
B	8901803			CABLE ASSY 196W9	31	L	03	64	JPL	MC	8901550		OSE
B	8901810		A	CABLE ASSY 197W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901811		A	CABLE ASSY 197W2	31	L	03	64	JPL	MC	8901550		OSE
B	8901812		A	CABLE ASSY 197W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901814		A	CABLE ASSY 198W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901816		A	CABLE ASSY 199W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901817		A	CABLE ASSY 199W2	31	L	03	64	JPL	MC	8901550		OSE
B	8901818		A	CABLE ASSY 199W3	31	L	03	64	JPL	MC	8901550		OSE
B	8901819		A	CABLE ASSY 199W4	31	L	03	64	JPL	MC	8901550		OSE
B	8901820		A	CABLE ASSY 199W90	31	L	03	64	JPL	MC	8901550		OSE
B	8901822		A	CABLE ASSY 190W1	31	L	03	64	JPL	MC	8901550		OSE
B	8901823		A	CABLE ASSY 190W2	31	L	03	64	JPL	MC	8901550		OSE
B	8901827		A	CABLE ASSY 190W6	31	L	03	64	JPL	MC	8901550		OSE
B	8901828		A	CABLE ASSY 190W7	31	L	03	64	JPL	MC	8901550		OSE
B	8901829		A	CABLE ASSY 190W8	31	L	03	64	JPL	MC	8901550		OSE
D	8901846			BASE PLATE CABLE HARNESS	35	L	10	63	JPL	MC	8901854		OSE
J	8901847			SPT CENTER CABLE HARNESS	35	L	10	63	JPL	MC	8901854		OSE
J	8901848			SPT SIDE CABLE HARN JIG	35	L	10	63	JPL	MC	8901854		OSE
D	8901849			LEAF CABLE HARNESS JIG	35	L	10	63	JPL	MC	8901854		OSE
D	8901850			SPACER HINGE CASE HARNES	35	L	10	63	JPL	MC	8901854		OSE
D	8901851			HINGE LEAF CASE HARN JIG	35	L	10	63	JPL	MC	8901854		OSE
D	8901852			BRACKET CASE HARNESS JIG	35	L	10	63	JPL	MC	8901853		OSE
J	8901853			CONNECTOR BRACKET	35	L	10	63	JPL	MC	8901855		OSE
J	8901853			CONNECTOR BRACKET	35	L	10	63	JPL	MC	8901869		OSE

JPL 1200 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 73 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	8901853			CONNECTOR BRACKET	35	L	10	63	JPL	MC	8901898		OSE
J	8901853			CONNECTOR BRACKET	35	L	10	63	JPL	MC	8901899		OSE
J	8901853			CONNECTOR BRACKET	35	L	10	63	JPL	MC	8901900		OSE
J	8901853			CONNECTOR BRACKET	35	L	10	63	JPL	MC	8901901		OSE
J	8901854			CABLE HARNESS JIG ASSY	35	L	10	63	JPL	MC	8901901		OSE
J	8901854			CABLE HARNESS JIG ASSY	35	L	10	63	JPL	MC	8901900		OSE
J	8901854			CABLE HARNESS JIG ASSY	35	L	10	63	JPL	MC	8901899		OSE
J	8901854			CABLE HARNESS JIG ASSY	35	L	10	63	JPL	MC	8901898		OSE
J	8901854			CABLE HARNESS JIG ASSY	35	L	10	63	JPL	MC	8901869		OSE
J	8901854			CABLE HARNESS JIG ASSY	35	L	10	63	JPL	MC	8901855		OSE
J	8901855		B	CASE 7 HARNESS JIG FIXT	35	L	09	64	JPL	MC	4900662		OSE
D	8901856			CONNECTOR BRACKET	35	L	10	63	JPL	MC	8901855		OSE
D	8901857			BRACKET ATTITUDE CONTROL	35	L	10	63	JPL	MC	8901855		OSE
D	8901859			COVER FRAME	35	L	10	63	JPL	MC	8901854		OSE
D	8901860			CHANNEL TOP	35	L	10	63	JPL	MC	8901854		OSE
D	8901861			COVER BTM CASE HARNESS	35	L	10	63	JPL	MC	8901854		OSE
D	8901862			HINGE FRAME CASE HARNESS	35	L	10	63	JPL	MC	8901854		OSE
D	8901863			CHANNEL	35	L	10	63	JPL	MC	8901854		OSE
J	8901864			FRAME CONNECTOR	35	L	10	63	JPL	MC	8901854		OSE
D	8901865			BRACKET CONNECTOR	35	L	10	63	JPL	MC	8901854		OSE
D	8901866			SUPPORT DUST COVER	35	L	10	63	JPL	MC	8901854		OSE
D	8901867			COVER FRAME	35	L	10	63	JPL	MC	8901854		OSE
C	8901868			GUIDE BLOCK	35	L	10	63	JPL	MC	8901854		OSE
J	8901869		A	CASE 1 HARNESS JIG	35	L	09	64	JPL	MC	4900564		OSE
J	8901869		A	CASE 1 HARNESS JIG	35	L	09	64	JPL	MC	4900583		OSE
J	8901869			CASE 1 HARNESS JIG FIXT	35	L	10	63	JPL	MC	4900583		OSE
D	8901870			COVER TOP	35	L	10	63	JPL	MC	8901854		OSE
B	8901873		C	CABLE ASSY 209UA1	31	L	06	64	JPL	MC	8901874		OSE
B	8901873		C	CABLE ASSY 209UA1	31	L	06	64	JPL	MC	8901875		OSE
J	8901876		A	SHIPPING CONTAINER ASSY	34	L	02	64	JPL	MC			OSE
J	8901877	CD	A	CONTAINER SHIPPING	34	L	02	64	JPL	MC	8901876		OSE
J	8901878		A	MOUNTING PLATE ASSY	34	L	02	64	JPL	MC	8901876		OSE
J	8901879		A	PLATE MOUNTING SUBASSY	34	L	02	64	JPL	MC	8901876		OSE
J	8901880			HANDLING FIXTURE ASY	34	L	02	64	JPL	MC			OSE
J	8901881			FRAME HANDLING FIXTURE	34	L	02	64	JPL	MC	8901880		OSE
B	8901891		B	CABLE ASSY LCOSE HARD	31	L	04	64	JPL	MC	8901874		OSE
B	8901891		B	CABLE ASSY LCOSE HARD	31	L	04	64	JPL	MC	8901875		OSE
B	8901892		B	CABLE ASSY LCOSE HARD	31	L	04	64	JPL	MC	8901874		OSE
B	8901892		B	CABLE ASSY LCOSE HARD	31	L	04	64	JPL	MC	8901875		OSE
B	8901893			CABLE LCOSE HARD LINE	31	L	12	63	JPL	MC	8901874		OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 74 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
B	8901893			CABLE LCOSE HARD LINE	31	L	12	63	JPL	MC	8901875		OSE
D	8901894		D	EQUIPMENT ASSY LCOSE	31	L	08	64	JPL	MC	8902198		OSE
D	8901895			EQUIPMENT ASSY	34	L	04	64	JPL	MC	8902198		OSE
J	8901896		A	ENVELOPE DRAWING	31	L	02	64	JPL	MC			OSE
D	8901897			END BRACKET ASSY	35	L	10	63	JPL	MC	8901854		OSE
J	8901898		A	CASE 3 HARNESS	35	L	09	64	JPL	MC	4900665		OSE
J	8901899		A	CASE 4 HARNESS JIG FIXT	35	L	09	64	JPL	MC	4900567		OSE
J	8901899		A	CASE 4 HARNESS JIG FIXT	35	L	09	64	JPL	MC	4900568		OSE
J	8901900		A	CASE 5 HARNESS JIG FIXT	35	L	09	64	JPL	MC	4900663		OSE
J	8901902			JIG FIXTURE ASSY	35	L	11	64	JPL	MC			OSE
C	8901905			BRACKET XFMR RECTIFIER	35	L	10	63	JPL	MC	8901900		OSE
C	8901905			BRACKET XFMR RECTIFIER	35	L	10	63	JPL	MC	8901901		OSE
J	8901907			JIG FIXTURE ASSY	35	L	11	64	JPL	MC			OSE
J	8901908		B	HAND FIXTURE BATT ASSY	35	L	05	64	JPL	MC	8902116		OSE
D	8901909		A	ADAPTER HANDLING FIXTURE	35	L	09	63	JPL	MC	4801908		OSE
J	8901910		B	HAND FIXTURE PWR REG ASY	35	L	05	64	JPL	MC	8902116		OSE
D	8901913		A	ADAPTER ASSY	35	LX	09	63	JPL	MC	8901910		OSE
B	8901914		B	PIN LOCATING EL CHASSIS	35	L	09	63	JPL	MC	8901544		OSE
D	8901916	CD	B	CONTAINER SHIPPING	34	L	12	63	JPL				
J	8901919		A	PYRO MON CONSOLE ASSY	35	LX	05	64	JPL	MC			OSE
D	8901920			BLOCK DIAGRAM	35	LX	11	63	JPL	MC	8901919		OSE
D	8901921			MONITOR PANEL ASSY	35	LX	11	63	JPL	MC	8901919		OSE
C	8901922			SCHEM PYRO MONITOR PANEL	35	LX	11	63	JPL	MC	8901921		OSE
D	8901923			JUNCTION PANEL ASSY	35	LX	11	63	JPL	MC	8901919		OSE
J	8901924			SCHEM JUNCTION PANEL	35	LX	11	63	JPL	MC	8901923		OSE
A	8901924			JUNCTION PANEL ASSY	35	LX	11	63	JPL	MC	8901924		OSE
D	8901925			ELAPSED TIME PANEL ASSY	35	LX	11	63	JPL	MC	8901919		OSE
D	8901926			SCHEM ELAPSED TIME PANEL	35	LX	11	63	JPL	MC	8901925		OSE
A	8901926	PL		ELAPSED TIME PANEL ASSY	35	LX	11	63	JPL	MC	8901926		OSE
[illegible]	8901927			TEST PANEL ASSY	35	LX	11	63	JPL	MC	8901919		OSE
J	8901928			SCHEM TEST PANEL ASSY	35	LX	11	63	JPL	MC	8901927		OSE
A	8901928	PL		TEST PANEL ASSY	35	LX	11	63	JPL	MC	8901928		OSE
B	8901929			CABLE ASSY 108MC1	35	LX	11	63	JPL	MC	8901919		OSE
B	8901930			CABLE ASSY 108MC2	35	LX	11	63	JPL	MC	8901919		OSE
B	8901931			CABLE ASSY 108MC3	35	LX	11	63	JPL	MC	8901919		OSE
B	8901932			CABLE ASSY 108MC4	35	LX	11	63	JPL	MC	8901919		OSE
B	8901933			CABLE ASSY 108MC5	35	LX	11	63	JPL	MC	8901919		OSE
B	8901934			CABLE ASSY 108MC6	35	LX	11	63	JPL	MC	8901919		OSE
B	8901935			CABLE ASSY 108MC7	35	LX	11	63	JPL	MC	8901919		OSE
B	8901936			CABLE ASSY 108MC8A	35	LX	11	63	JPL	MC	8901919		OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST

MARINER C OSE NUMERICAL PAGE 75

DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	8901937			CABLE ASSY 108MC9	35	LX	11	63	JPL	MC	8901919		OSE
B	8901938			CABLE ASSY 108MC10	35	LX	11	63	JPL	MC	8901919		OSE
B	8901939			CABLE ASSY 108MC11	35	LX	11	63	JPL	MC	8901919		OSE
B	8901940			CABLE ASSY 108MC12	35	LX	11	63	JPL	MC	8901919		OSE
B	8901941			CABLE ASSY 108MC13	35	LX	11	63	JPL	MC	8901919		OSE
B	8901942			CABLE ASSY 108MC14	35	LX	11	63	JPL	MC	8901919		OSE
B	8901943			CABLE ASSY 108MC15	35	LX	11	63	JPL	MC	8901919		OSE
B	8901944			CABLE ASSY 108MC16	35	LX	11	63	JPL	MC	8901919		OSE
B	8901945			CABLE ASSY 108MC17	35	LX	11	63	JPL	MC	8901919		OSE
B	8901946			CABLE ASSY 108MC18	35	LX	11	63	JPL	MC	8901919		OSE
B	8901947			CABLE ASSY 108MC19	35	LX	11	63	JPL	MC	8901919		OSE
B	8901948			CABLE ASSY 108MC20	35	LX	11	63	JPL	MC	8901919		OSE
B	8901949			CABLE ASSY 108MC21	35	LX	11	63	JPL	MC	8901919		OSE
B	8901950			CABLE ASSY 108MC22	35	LX	11	63	JPL	MC	8901919		OSE
B	8901951			CABLE ASSY 108MC23	35	LX	11	63	JPL	MC	8901919		OSE
B	8901952			CABLE ASSY 108MC24	35	LX	11	63	JPL	MC	8901919		OSE
B	8901953			CABLE ASSY 108MC25	35	LX	11	63	JPL	MC	8901919		OSE
B	8901954			CABLE ASSY 108MC26	35	LX	11	63	JPL	MC	8901919		OSE
B	8901955			CABLE ASSY 108MC27	35	LX	11	63	JPL	MC	8901919		OSE
B	8901956			CABLE ASSY 108MC28	35	LX	11	63	JPL	MC	8901919		OSE
B	8901957			CABLE ASSY 108MC29	35	LX	11	63	JPL	MC	8901919		OSE
B	8901958			CABLE ASSY 108MC30	35	LX	11	63	JPL	MC	8901919		OSE
B	8901959			CABLE ASSY 108MC31	35	LX	11	63	JPL	MC	8901919		OSE
B	8901960			CABLE ASSY 108MC32	35	LX	11	63	JPL	MC	8901919		OSE
B	8901961			CABLE ASSY 108MC8B	35	LX	11	63	JPL	MC	8901919		OSE
B	8901962			CABLE ASSY 108MC8C	35	LX	11	63	JPL	MC	8901919		OSE
D	8901963			FRAME ASSY	35	L	10	63	JPL	MC	8901975		OSE
C	8901964			BRACKET GI GAIN ANTENNA	35	L	10	63	JPL	MC	8901901		OSE
D	8901965			MOUNTING BRACKET	35	L	10	63	JPL	MC	8901901		OSE
C	8901966			BRACKET LOW GAIN ANTENNA	35	L	10	63	JPL	MC	8901901		OSE
C	8901967			BRACKET	35	L	10	63	JPL	MC	8901901		OSE
C	8901968			BRACKET	35	L	10	63	JPL	MC	8901901		OSE
C	8901969			BRKT CASE HARNESS JIG	35	L	10	63	JPL	MC	8901901		OSE
C	8901970			STANDOFF CASE HARNES JIG	35	L	10	63	JPL	MC	8901901		OSE
C	8901971			STANDOFF	35	L	10	63	JPL	MC	8901901		OSE
C	8901972			ANGLE BRACKET	35	L	10	63	JPL	MC	8901901		OSE
D	8901973			BRACKET CASE HARNESS JIG	35	L	10	63	JPL	MC	8901901		OSE
D	8901974			BRACKET PWR AMPLIFIERS	35	L	10	63	JPL	MC	8901901		OES
B	8901975		A	SUBASSY HANDLING & STOR	35	L	11	64	JPL	MC			OSE
C	8901976			SPACER CASE HARNESS JIG	35	L	10	63	JPL	MC	8901901		OSE

JPL 1886 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST

MARINER C OSE NUMERICAL PAGE 76

DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	8901977		A	CABLE ASSY SAF 196WR1	31	L	03	64	JPL	MC	8901550		OSE
B	8901978		A	CABLE ASSY SAF 196WR2	31	L	03	64	JPL	MC	8901550		OSE
B	8901979		A	CABLE ASSY SAF 196WR3	31	L	03	64	JPL	MC	8901550		OSE
B	8901980			CONNECTOR PANEL WIR DGM	31	L	10	63	JPL	MC	8902121		OSE
D	8901983			TRANSPORT TRAILER MC	35	L	07	64	JPL	MC			OSE
J	8901984		C	BED ASSY TRANSPORT	35	L	07	64	JPL	MC	8901983		OSE
J	8901985			SHELF INSTL NITROGEN	35	L	07	64	JPL	MC	8901983		OSE
D	8901986		B	RUNNING GEAR INSTL	35	L	07	64	JPL	MC	8901983		OSE
C	8901987			LADDER ASSY WORKMAN	35	L	07	64	JPL	MC	8901983		OSE
J	8901988		B	BED TRAILER WELDMENT	35	L	07	64	JPL	MC	8901984		OSE
B	8901989		A	LADDER CONT DRAWING	35	L	07	64	JPL	MC	8901987		OSE
B	8901990			YOKE SHELF SUPPORT	35	L	07	64	JPL	MC	8901985		OSE
B	8901991			YOKE SHELF SUPPORT	35	L	07	64	JPL	MC	8901985		OSE
B	8901992		A	RUNNING GEAR ASSY CONT	35	L	07	64	JPL	MC	8901986		OSE
C	8901993			TUBE SHELF SUPPORT	35	L	07	64	JPL	MC	8901985		OSE
B	8901994			SUPPORT NITROGEN BOTTLE	35	L	07	64	JPL	MC	8901985		OSE
B	8902013			CABLE ASSY 13W1	32	L	11	63	JPL	MC	8800359		OSE
B	8902014			CABLE ASSY 13W2	32	L	11	63	JPL	MC	8800359		OSE
B	8902015			CABLE ASSY 13W3	32	L	11	63	JPL	MC	8800359		OSE
B	8902016			CABLE ASSY 13W4	32	L	11	63	JPL	MC	8800359		OSE
B	8902017			CABLE ASSY 13W5	32	L	11	63	JPL	MC	8800359		OSE
B	8902018			CABLE ASSY 13W6	32	L	11	63	JPL	MC	8800359		OSE
B	8902019			CABLE ASSY 13W7	32	L	11	63	JPL	MC	8800359		OSE
B	8902020			CABLE ASSY 13W8	32	L	11	63	JPL	MC	8800359		OSE
B	8902021			CABLE ASSY 13W9	32	L	11	63	JPL	MC	8800359		OSE
B	8902022			CABLE ASSY 13W10	32	L	11	63	JPL	MC	8800359		OSE
B	8902023			CABLE ASSY 13W11	32	L	11	63	JPL	MC	8800359		OSE
B	8902024			CABLE ASSY 13W12	32	L	11	63	JPL	MC	8800359		OSE
B	8902025			CABLE ASSY 13W13	32	L	11	63	JPL	MC	8800359		OSE
B	8902026			CABLE ASSY 13W14	32	L	11	63	JPL	MC	8800359		OSE
B	8902027			CABLE ASSY 13W15	32	L	11	63	JPL	MC	8800359		OSE
B	8902028			CABLE ASSY 13W16	32	L	11	63	JPL	MC	8800359		OSE
B	8902030			CABLE ASSY 13W18	32	L	11	63	JPL	MC	8800359		OSE
B	8902031			CABLE ASSY 13W19	32	L	11	63	JPL	MC	8800359		OSE
B	8902032		A	CABLE ASSY 120WR10	32	L	03	64	JPL	MC	8800359		OSE
B	8902035		A	CABLE ASSY 120WR1	32	L	03	64	JPL	MC	8800359		OSE
B	8902036		A	CABLE ASSY 120WR2	32	L	03	64	JPL	MC	8800359		OSE
B	8902037		A	CABLE ASSY 120WR3	32	L	03	64	JPL	MC	8800359		OSE
B	8902038		A	CABLE ASSY 120WR4	32	L	03	64	JPL	MC	8900359		OSE
B	8902039		A	CABLE ASSY 120WR5	32	L	03	64	JPL	MC	8800359		OSE

JPL 1886 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 77 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	DESIG. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	DFT SYM.	REFERENCE NUMBER
B	8902040		A	CABLE ASSY 120WR6	32	L	03	64	JPL	MC	8800359		OSE
B	8902041		A	CABLE ASSY 120WR7	32	L	06	64	JPL	MC	8800359		OSE
B	8902042		A	CABLE ASSY 120WR8	32	L	06	64	JPL	MC	8800359		OSE
B	8902043		A	CABLE ASSY 120WR9	32	L	06	64	JPL	MC	8800359		OSE
B	8902044		A	CABLE ASSY 120WR13	32	L	06	64	JPL	MC	8800359		OSE
B	8902045			CABLE ASSY 120WR14	32	L	12	63	JPL	MC	8800359		OSE
B	8902046			CABLE ASSY 120WC1	32	L	12	63	JPL	MC	8800359		OSE
B	8902047			CABLE ASSY 12/WC2	32	L	12	63	JPL	MC	8800359		OSE
B	8902048			CABLE ASSY 120WC3	32	L	12	63	JPL	MC	8800359		OSE
B	8902049			CABLE ASSY 120WC5	32	L	12	63	JPL	MC	8800359		OSE
B	8902050			CABLE ASSY 12/WC6	32	L	12	63	JPL	MC	8800359		OSE
B	8902051			CABLE ASSY 120WC8	32	L	12	63	JPL	MC	8800359		OSE
B	8902052			CABLE ASSY 120WC9	32	L	12	63	JPL	MC	8800359		OSE
B	8902053			CABLE ASSY 120WC4	32	L	12	63	JPL	MC	8800359		OSE
J	8902055		A	CABLING BLOCK DIAG	34	L	12	64	JPL	MC	8902565		OSE
B	8902056			CABLE ASSY 109WS7A	31	L	06	64	JPL	MC	8901550		OSE
B	8902057			CABLE ASSY 193W3	31	L	05	64	JPL	MC	8901550		OSE
B	8902059			CABLE ASSY 120WR18	32	L	12	63	JPL	MC	8800359		OSE
B	8902060			CABLE ASSY 120WR19	32	L	12	63	JPL	MC	8800359		OSE
B	8902061			CABLE ASSY 120WR20	32	L	12	63	JPL	MC	8800359		OSE
B	8902062		A	CABLE ASSY 120WR21	32	L	03	64	JPL	MC	8800359		OSE
B	8902063			CABLE ASSY 120WC50	32	L	12	63	JPL	MC	8800359		OSE
B	8902064			CABLE ASSY MLF 209W412	31	L	07	64	JPL	MC	8901874		OSE
B	8902064			CABLE ASSY MLF 209W412	31	L	07	64	JPL	MC	8901875		OSE
B	8902065			CABLE ASSY DR209W209	31	L	07	64	JPL	MC	8902573		OSE
B	8902066		A	CABLE ASSY 209W605	31	L	08	64	JPL	MC	8902198		OSE
B	8902067			CABLE ASSY 209W601	31	L	07	64	JPL	MC	8902198		OSE
J	8902113			TIMER RECOCKING MECHANSM	35	L	10	63	JPL	MC			OSE
D	8902114			FRAME ASSY SUBAY HANDLNG	35	L	09	63	JPL	MC	8901975		OSE
B	8902115			SPT CABLE BRACKET	35	L	10	63	JPL	MC	8901901		OSE
D	8902116		A	ELECT ASSY SHIP CNTR ASY	35	L	05	64	JPL	MC			OSE
C	8902117			BRACKET	35	L	10	63	JPL	MC	8901901		OSE
J	8902118			UMBILICAL ADAPTER BOX	31	L	04	64	JPL	MC	8901550		OSE
J	8902119			DUST COVER ASSY	35	L	10	63	JPL	MC			OSE
J	8902120			PANEL CONNECTOR REAR	31	L	10	63	JPL	MC	8902121		OSE
J	8902122			JUNCTION BOX CHASSIS ASY	31	L	03	64	JPL	MC	8902123		OSE
J	8902123			POWER JUNCTION BOX ASSY	31	L	03	64	JPL	MC	8901550		OSE
J	8902124		A	PWR JUNCT BOX SCHM DIAG	31	L	08	64	JPL	MC	8902023		OSE
J	8902125			JUNCTION BOX ASSY	31	L	03	64	JPL	MC	8901550		OSE
J	8902126			ATTITUDE CONTROL SCHEM	31	L	03	64	JPL	MC	8902125		OSE

JPL 1300 JAN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 78 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	DESIG. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	DFT SYM.	REFERENCE NUMBER
J	8902127			JUNCTION BOX CHASS ASSY	31	L	03	64	JPL	MC	8902125		OSE
B	8902136			LABEL IDENTIFICATION	31	L	04	64	JPL	MC	8902118		OSE
B	8902137		A	CABLE ASSY 102WC10-1	31	L	08	64	JPL	MC	8902563		OSE
B	8902138		A	CABLE ASSY 102WC11-1	31	L	08	64	JPL	MC	8902563		OSE
B	8902139		A	CABLE ASSY 102WC12-1	31	L	08	64	JPL	MC	8902563		OSE
B	8902140		A	CABLE ASSY 103WC10-1	31	L	08	64	JPL	MC	8902563		OSE
B	8902141		A	CABLE ASSY 104WC10-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902142		A	CABLE ASSY 104WC11-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902143		A	CABLE ASSY 104WC12-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902144		A	CABLE ASSY 104WC14-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902145		A	CABLE ASSY 104WC13-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902146		A	CABLE ASSY 104WC15-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902147		A	CABLE ASSY 104WC16-1	31	L	08	64	JPL	MC	8902563		OSE
B	8902148		A	CABLE ASSY 104WC17-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902149		A	CABLE ASSY 104WC18-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902150		A	CABLE ASSY 104WC19-1	31	L	09	64	JPL	MC	8902563		OSE
B	8902151		A	CABLE ASSY 104WC21-1	31	L	08	64	JPL	MC	8902563		OSE
B	8902152			CABLE ASSY 105WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902153		B	CABLE ASSY 105WC11-1	31	L	11	64	JPL	MC	8902563		OSE
B	8902154			CABLE ASSY 106WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902155			CABLE ASSY 106WC11-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902156			CABLE ASSY 106WC12-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902157			CABLE ASSY 106WC13-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902158			CABLE ASSY 107WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902159			CABLE ASSY 107WC11-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902160			CABLE ASSY 107WC12-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902161		A	CABLE ASSY 108WC10-1	31	L	08	64	JPL	MC	8902563		OSE
B	8902162			CABLE ASSY 110WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902163			CABLE ASSY 116WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902164			CABLE ASSY 120WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902165			CABLE ASSY 120WC11-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902166			CABLE ASSY 124WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902167			CABLE ASSY 125WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902168			CABLE ASSY 126WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902169			CABLE ASSY 131WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902170			CABLE ASSY 131WC11-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902171			CABLE ASSY 133WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902172			CABLE ASSY 134WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902173			CABLE ASSY 136WC10-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902175		A	CABLE ASSY 102WC6	31	L	08	64	JPL	MC	8902563		OSE

JPL 1300 JAN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 79 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
B	8902176		A	CABLE ASSY 102WC7	31	L	08	64	JPL	MC	8902563		OSE
B	8902177		A	CABLE ASSY 102WC8	31	L	08	64	JPL	MC	8902563		OSE
B	8902178		A	CABLE ASSY 102WC9 SELF	31	L	08	64	JPL	MC	8902563		OSE
B	8902179		A	CABLE ASSY 103WC1	31	L	08	64	JPL	MC	8902563		OSE
B	8902180		A	CABLE ASSY 103WC2	31	L	08	64	JPL	MC	8902563		OSE
B	8902181			CABLE ASSY 116WC1	31	L	03	64	JPL	MC	8902563		OSE
B	8902182			CABLE ASSY 116WC2	31	L	03	64	JPL	MC	8902563		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902598		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902597		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902596		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902595		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902594		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902594		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902593		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902592		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902591		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902608		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902607		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902606		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902605		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902604		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902603		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902602		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902601		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902600		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902599		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902612		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902611		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902610		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902609		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902617		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902616		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902615		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902614		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902613		OSE
C	8902183		A	LABEL CABLE & CONNECTOR	31	L	06	64	JPL	MC	8902618		OSE
B	8902184		A	CABLE ASSY 102WC5	31	L	08	64	JPL	MC	8902563		OSE
B	8902185			CABLE ASSY 116WC11-1	31	L	03	64	JPL	MC	8902563		OSE
J	8902186			CARRYING CASE	35	L	12	63	JPL	MC			OSE
C	8902187			BOX HARDWARE STORAGE	35	L	12	63	JPL	MC	8902188		OSE

JPL 1966 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 80 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	8902188			SHIPPING ASSY	35	L	12	63	JPL	MC			OSE
B	8902189		A	CABLE ASSY 105WC1	31	L	08	64	JPL	MC	8902563		OSE
B	8902190		A	CABLE ASSY 105WC2	31	L	08	64	JPL	MC	8902563		OSE
B	8902191			CABLE ASSY 106WC1	31	L	03	64	JPL	MC	8902563		OSE
B	8902192			CABLE ASSY 120WC12-1	31	L	03	64	JPL	MC	8902563		OSE
D	8902193			PANEL FRAME WELDMENT	31	L	07	64	JPL	MC	8901553		OSE
D	8902194			PANEL	31	L	07	64	JPL	MC	8901553		OSE
J	8902195			JUNCTION BOX CHASSIS BOX	31	L	07	64	JPL	MC	8901553		OSE
D	8902196			TRACK TIER MODULES	31	L	03	64	JPL	MC	8901553		OSE
D	8902196			TRACK TIER MODULES	31	L	03	64	JPL	MC	8902123		OSE
D	8902196			TRACK TIER MODULES	31	L	03	64	JPL	MC	8902125		OSE
J	8902198		A	LC/OSE MASTER BLOCK DIAG	31	L	11	64	JPL	MC			OSE
B	8902199			CABLE ASSY 190WR1	35	L	02	64	JPL	MC	8901550		OSE
B	8902200			CABLE ASSY 190WR2	35	L	02	64	JPL	MC	8901550		OSE
B	8902201			CABLE ASSY 190WR3	35	L	02	64	JPL	MC	8901550		OSE
B	8902202			CABLE ASSY 190WR4	35	L	02	64	JPL	MC	8901550		OSE
B	8902203			CABLE ASSY 190WR5	35	L	02	64	JPL	MC	8901550		OSE
B	8902204		A	CABLE ASSY 106WC2	31	L	08	64	JPL	MC	8902563		OSE
B	8902205			CABLE ASSY 106WC3	31	L	03	64	JPL	MC	8902563		OSE
B	8902206			CABLE ASSY 106WC4	31	L	03	64	JPL	MC	8902563		OSE
B	8902207		A	CABLE ASSY 103W1B	31	L	08	64	JPL	MC	8901550		OSE
B	8902208			CABLE ASSY 107W2B	31	L	03	64	JPL	MC	8901550		OSE
B	8902209		A	CABLE ASSY 108W2B	31	L	08	64	JPL	MC	8901550		OSE
B	8902210			CABLE ASSY 108W3B	31	L	08	64	JPL	MC	8901550		OSE
B	8902211			CABLE ASSY 109W1B	31	L	03	64	JPL	MC	8901550		OSE
B	8902212			CABLE ASSY 109W2B	31	L	03	64	JPL	MC	8901550		OSE
B	8902213			CABLE ASSY 109W3B	31	L	03	64	JPL	MC	8901550		OSE
B	8902214			CABLE ASSY 109W4B	31	L	11	64	JPL	MC	8901550		OSE
B	8902215		A	CABLE ASSY 102WC10-2	31	L	08	64	JPL	MC	8902563		OSE
B	8902216		A	CABLE ASSY 102WC11-2	31	L	08	64	JPL	MC	8902563		OSE
B	8902217		A	CABLE ASSY 102WC12-2	31	L	08	64	JPL	MC	8902563		OSE
B	8902218		A	CABLE ASSY 103WC10-2	31	L	08	64	JPL	MC	8902563		OSE
B	8902219		A	CABLE ASSY 104WC10-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902220		A	CABLE ASSY 104WC11-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902221		A	CABLE ASSY 104WC12-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902222		A	CABLE ASSY 104WC13-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902223		A	CABLE ASSY 104WC14-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902224		A	CABLE ASSY 104WC15-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902225		A	CABLE ASSY 104WC16-2	31	L	08	64	JPL	MC	8802563		OSE
B	8902226		A	CABLE ASSY 104WC17-2	31	L	09	64	JPL	MC	8902563		OSE

JPL 1966 JUN 68

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 81 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	INDUS. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL.	REFERENCE NUMBER
B	8902227		A	CABLE ASSY 104WC18-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902228		A	CABLE ASSY 104WC19-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902229		A	CABLE ASSY 104WC21-2	31	L	09	64	JPL	MC	8902563		OSE
B	8902230			CABLE ASSY 105WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902231		A	CABLE ASSY 105WC11-2	31	L	08	64	JPL	MC	8902563		OSE
B	8902232			CABLE ASSY 106WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902233			CABLE ASSY 106WC11-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902234			CABLE ASSY 106WC12-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902235			CABLE ASSY 106WC13-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902236			CABLE ASSY 107WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902237			CABLE ASSY 107WC11-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902238			CABLE ASSY 107WC12-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902239		A	CABLE ASSY 108WC10-2	31	L	08	64	JPL	MC	8902563		OSE
B	8902240			CABLE ASSY 110WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902241			CABLE ASSY 116WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902242			CABLE ASSY 116WC11-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902243			CABLE ASSY 120WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902244			CABLE ASSY 120WC11-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902245			CABLE ASSY 120WC12-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902246			CABLE ASSY 124WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902247			CABLE ASSY 125WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902248			CABLE ASSY 126WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902249			CABLE ASSY 131WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902250			CABLE ASSY 131WC11-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902251			CABLE ASSY 133WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902252			CABLE ASSY 134WC10-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902253			CABLE ASSY 136WC10-2	31	L	03	64	JPL	MC	8902563		OSE
D	8902255			BACKSHELL CONN ASSY	31	L	06	64	JPL	MC			OSE
J	8902256			POWER GROUP 1 SYS TEST	34	L	03	64	JPL	MC			OSE
B	8902257			CABLE ASSY 104WA1-1	34	L	02	64	JPL	MC	8900643		OSE
B	8902258			CABLE ASSY 104WA1-2	34	L	02	64	JPL	MC	8900643		OSE
B	8902259			CABLE ASSY 104WA1-3	34	L	02	64	JPL	MC	8900643		OSE
B	8902260			CABLE ASSY 104WA1-4	34	L	02	64	JPL	MC	8900643		OSE
B	8902261			CABLE ASSY 104WA1-5	34	L	02	64	JPL	MC	8900643		OSE
B	8902262			CABLE ASSY 104WA1-6	34	L	02	64	JPL	MC	8900643		OSE
B	8902263			CABLE ASSY 104WA1-7	34	L	02	64	JPL	MC	8900643		OSE
B	8902264			CABLE ASSY 104WA1-8	34	L	02	64	JPL	MC	8900643		OSE
B	8902265			CABLE ASSY 104WA1-9	34	L	02	64	JPL	MC	8900643		OSE
B	8902266			CABLE ASSY 104WA1-10	34	L	02	64	JPL	MC	8900643		OSE
B	8902267			CABLE ASSY 104WA1-11	34	L	02	64	JPL	MC	8900643		OSE

JPL 1000 JUN 62

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 82 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	INDUS. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL.	REFERENCE NUMBER
B	8902268			CABLE ASSY 104WA1-12	34	L	02	64	JPL	MC	8900643		OSE
B	8902269			CABLE ASSY 104WA1-13	34	L	02	64	JPL	MC	8900643		OSE
B	8902270			CABLE ASSY 104WA1-14	34	L	02	64	JPL	MC	8900643		OSE
B	8902271			CABLE ASSY 104WA1-15	34	L	02	64	JPL	MC	8900643		OSE
B	8902272			CABLE ASSY 104WA1-16	34	L	02	64	JPL	MC	8900643		OSE
B	8902273			CABLE ASSY 104WA1-17	34	L	02	64	JPL	MC	8900643		OSE
B	8902274			CABLE ASSY 104WA1-18	34	L	02	64	JPL	MC	8900643		OSE
B	8902275			CABLE ASSY 104WA1-19	34	L	02	64	JPL	MC	8900643		OSE
B	8902276			CABLE ASSY 104WA1-20	34	L	02	64	JPL	MC	8900643		OSE
B	8902277			CABLE ASSY 104WA1-21	34	L	02	64	JPL	MC	8900643		OSE
B	8902278			CABLE ASSY 104WA1-22	34	L	02	64	JPL	MC	8900643		OSE
B	8902279			CABLE ASSY 104WA1-23	34	L	02	64	JPL	MC	8900643		OSE
B	8902280			CABLE ASSY 104WA1-24	34	L	02	64	JPL	MC	8900643		OSE
B	8902281			CABLE ASSY 104WA1-25	34	L	02	64	JPL	MC	8900643		OSE
B	8902282			CABLE ASSY 104WA1-26	34	L	02	64	JPL	MC	8900643		OSE
B	8902283			CABLE ASSY 104WA1-27	34	L	02	64	JPL	MC	8900643		OSE
B	8902284			CABLE ASSY 104WA1-28	34	L	02	64	JPL	MC	8900643		OSE
B	8902285			CABLE ASSY 104WA1-29	34	L	02	64	JPL	MC	8900643		OSE
B	8902286			CABLE ASSY 104WA1-30	34	L	02	64	JPL	MC	8900643		OSE
B	8902287			CABLE ASSY 104WA1-31	34	L	02	64	JPL	MC	8900643		OSE
B	8902288			CABLE ASSY 104WA1-32	34	L	02	64	JPL	MC	8900643		OSE
B	8902289			CABLE ASSY 104WA1-33	34	L	02	64	JPL	MC	8900643		OSE
B	8902290			CABLE ASSY 104WA1-34	34	L	02	64	JPL	MC	8900643		OSE
B	8902291			CABLE ASSY 104WA1-35	34	L	02	64	JPL	MC	8900643		OSE
B	8902292			CABLE ASSY 104WA1-36	34	L	02	64	JPL	MC	8900643		OSE
B	8902293			CABLE ASSY 104WA1-37	34	L	02	64	JPL	MC	8900643		OSE
B	8902294			CABLE ASSY 104WA1-38	34	L	02	64	JPL	MC	8900643		OSE
B	8902295			CABLE ASSY 104WA1-39	34	L	02	64	JPL	MC	8900643		OSE
B	8902296			CABLE ASSY 104WA1-40	34	L	02	64	JPL	MC	8900643		OSE
B	8902297			CABLE ASSY 104WA1-41	34	L	02	64	JPL	MC	8900643		OSE
B	8902298			CABLE ASSY 104WA1-42	34	L	02	64	JPL	MC	8900643		OSE
B	8902299			CABLE ASSY 104WA1-43	34	L	02	64	JPL	MC	8900643		OSE
B	8902300			CABLE ASSY 104WA1-44	34	L	02	64	JPL	MC	8900643		OSE
B	8902301			CABLE ASSY 104WA1-45	34	L	02	64	JPL	MC	8900643		OSE
B	8902302			CABLE ASSY 104WA1-46	34	L	02	64	JPL	MC	8900643		OSE
B	8902303			CABLE ASSY 104WA1-47	34	L	02	64	JPL	MC	8900643		OSE
B	8902304			CABLE ASSY 104WA1-48	34	L	02	64	JPL	MC	8900643		OSE
B	8902305		A	CABLE ASSY 102W1B	31	L	08	64	JPL	MC	8901550		OSE
B	8902306		A	CABLE ASSY 102W2B	31	L	08	64	JPL	MC	8901550		OSE
B	8902307		B	CABLE ASSY 103WV1B	31	L	12	64	JPL	MC	8901550		OSE

JPL 1000 JUN 62

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 83 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
B	8902308		A	CABLE ASSY 104W4B	31	L	09	64	JPL	MC	8901550		OSE
B	8902309		A	CABLE ASSY 104W5B	31	L	09	64	JPL	MC	8901550		OSE
B	8902310		A	CABLE ASSY 104W6B-1	31	L	09	64	JPL	MC	8901550		OSE
B	8902311		A	CABLE ASSY 104W6B-2	31	L	09	64	JPL	MC	8901550		OSE
B	8902312		A	CABLE ASSY 104W6B-3	31	L	09	64	JPL	MC	8901550		OSE
B	8902313			CABLE ASSY 104W7B	31	L	03	64	JPL	MC	8901550		OSE
B	8902314		A	CABLE ASSY 106WV2B	31	L	12	64	JPL	MC	8901550		OSE
B	8902315		A	CABLE ASSY 116WV3B	31	L	12	64	JPL	MC	8901550		OSE
B	8902316			CABLE ASSY 106W2B	31	L	03	64	JPL	MC	8901550		OSE
B	8902317		A	CABLE ASSY 107WV2B	31	L	12	64	JPL	MC	8901550		OSE
B	8902318			CABLE ASSY 133WC11-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902319			CABLE ASSY 133WC11-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902320			CABLE ASSY 134WC11-1	31	L	03	64	JPL	MC	8902563		OSE
B	8902321			CABLE ASSY 134WC11-2	31	L	03	64	JPL	MC	8902563		OSE
B	8902324			CABLE ASSY 116W3B	31	L	03	64	JPL	MC	8901550		OSE
B	8902325			CABLE ASSY 120W11B	31	L	03	64	JPL	MC	8901550		OSE
B	8902326			CABLE ASSY 120W12B	31	L	03	64	JPL	MC	8901550		OSE
B	8902327			CABLE ASSY 120W13B	31	L	03	64	JPL	MC	8901550		OSE
B	8902328			CABLE ASSY 120W14B	31	L	03	64	JPL	MC	8901550		OSE
J	8902330			POWER GROUP 2	34	L	04	64	JPL	MC			OSE
J	8902331		A	POWER PANEL ASSY GROUP 1	34	L	04	64	JPL	MC	8902256		OSE
J	8902331		A	POWER PANEL ASSY GROUP 1	34	L	04	64	JPL	MC	8902403		OSE
J	8902332			PANEL POWER GROUP 1	34	L	03	64	JPL	MC	8902331		OSE
D	8902333		A	HINGE	34	L	04	64	JPL	MC	8902395		OSE
D	8902333		A	HINGE	34	L	04	64	JPL	MC	8902331		OSE
C	8902334		A	BARRIER STRIP	34	L	04	64	JPL	MC	8902395		OSE
C	8902334		A	BARRIER STRIP	34	L	04	64	JPL	MC	8902331		OSE
C	8902335		A	INSULATOR STRIP	34	L	04	64	JPL	MC	8902395		OSE
C	8902335		A	INSULATOR STRIP	34	L	04	64	JPL	MC	8902331		OSE
C	8902336		A	COVER TERMINAL BD	34	L	04	64	JPL	MC	8902395		OSE
C	8902336		A	COVER TERMINAL BD	34	L	04	64	JPL	MC	8902331		OSE
J	8902337		A	CONNECTOR PANEL GROUP 1	34	L	04	64	JPL	MC	8902403		OSE
J	8902337		A	CONNECTOR PANEL GROUP 1	34	L	04	64	JPL	MC	8902256		OSE
D	8902338		A	BASE PLATE	34	L	04	64	JPL	MC	8902403		OSE
D	8902338		A	BASE PLATE	34	L	04	64	JPL	MC	8902256		OSE
D	8902339			SPACER SLIDE SYS TEST	34	L	03	64	JPL	MC	8902256		OSE
D	8902339			SPACER SLIDE SYS TEST	34	L	03	64	JPL	MC	8902330		OSE
D	8902340		A	BRACKET SLIDE MOUNTING	34	L	04	64	JPL	MC	8902564		OSE
D	8902340		A	BRACKET SLIDE MOUNTING	34	L	04	64	JPL	MC	8902458		OSE
D	8902340		A	BRACKET SLIDE MOUNTING	34	L	04	64	JPL	MC	8902403		OSE

JPL 1868 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 84 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	8902340		A	BRACKET SLIDE MOUNTING	34	L	04	64	JPL	MC	8902256		OSE
D	8902340		A	BRACKET SLIDE MOUNTING	34	L	04	64	JPL	MC	8902330		OSE
B	8902344			CABLE ASSY 104WA1-49	34	L	02	64	JPL	MC	8900643		OSE
B	8902345			CABLE ASSY 104WA1-50	34	L	02	64	JPL	MC	8900643		OSE
B	8902346			CABLE ASSY 104WA1-51	34	L	02	64	JPL	MC	8900643		OSE
B	8902347			CABLE ASSY 104WA2-1	34	L	02	64	JPL	MC	8900645		OSE
B	8902348			CABLE ASSY 104WA2-2	34	L	02	64	JPL	MC	8900645		OSE
B	8902349			CABLE ASSY 104WA2-3	34	L	02	64	JPL	MC	8900645		OSE
B	8902350			CABLE ASSY 104WA2-4	34	L	02	64	JPL	MC	8900645		OSE
B	8902351			CABLE ASSY 104WA2-5	34	L	02	64	JPL	MC	8900645		OSE
B	8902352			CABLE ASSY 104WA2-6	34	L	02	64	JPL	MC	8900645		OSE
B	8902353			CABLE ASSY 104WA2-7	34	L	02	64	JPL	MC	8900645		OSE
B	8902354			CABLE ASSY 104WA2-8	34	L	02	64	JPL	MC	8900645		OSE
B	8902355			CABLE ASSY 104WA2-9	34	L	02	64	JPL	MC	8900645		OSE
B	8902356			CABLE ASSY 104WA2-10	34	L	02	64	JPL	MC	8900645		OSE
B	8902357			CABLE ASSY 104WA2-11	34	L	02	64	JPL	MC	8900645		OSE
B	8902358			CABLE ASSY 104WA2-12	34	L	02	64	JPL	MC	8900645		OSE
B	8902359			CABLE ASSY 104WA2-13	34	L	02	64	JPL	MC	8900645		OSE
B	8902360			CABLE ASSY 104WA2-14	34	L	02	64	JPL	MC			OSE
B	8902361			CABLE ASSY 104WA2-15	34	L	02	64	JPL	MC	8900645		OSE
B	8902362			CABLE ASSY 104WA2-16	34	L	02	64	JPL	MC	8900645		OSE
B	8902363			CABLE ASSY 104WA2-17	34	L	02	64	JPL	MC	8900645		OSE
B	8902364			CABLE ASSY 104WA2-18	34	L	02	64	JPL	MC	8900645		OSE
B	8902365			CABLE ASSY 104WA2-19	34	L	02	64	JPL	MC	8900645		OSE
B	8902366			CABLE ASSY 104WA2-20	34	L	02	64	JPL	MC	8900645		OSE
B	8902367			CABLE ASSY 104WA2-21	34	L	02	64	JPL	MC	8900645		OSE
B	8902368			CABLE ASSY 104WA2-22	34	L	02	64	JPL	MC	8900645		OSE
B	8902369			CABLE ASSY 104WA2-23	34	L	02	64	JPL	MC	8900645		OSE
B	8902370			CABLE ASSY 104WA2-24	34	L	02	64	JPL	MC	8900645		OSE
B	8902371			CABLE ASSY 104WA2-25	34	L	02	64	JPL	MC	8900645		OSE
B	8902372			CABLE ASSY 104WA2-26	34	L	02	64	JPL	MC	8900645		OSE
B	8902373			CABLE ASSY 104WA2-27	34	L	02	64	JPL	MC	8900645		OSE
B	8902374			CABLE ASSY 104WA2-28	34	L	02	64	JPL	MC	8900645		OSE
B	8902375			CABLE ASSY 104WA2-29	34	L	02	64	JPL	MC	8900645		OSE
B	8902376			CABLE ASSY 104WA2-30	34	L	02	64	JPL	MC	8900645		OSE
B	8902377			CABLE ASSY 104WA2-31	34	L	02	64	JPL	MC	8900645		OSE
B	8902378			CABLE ASSY 104WA2-32	34	L	02	64	JPL	MC	8900645		OSE
B	8902379			CABLE ASSY 104WA2-33	34	L	02	64	JPL	MC	8900645		OSE
B	8902380			CABLE ASSY 120W23A	31	L	03	64	JPL	MC	8901550		OSE
B	8902381			CABLE ASSY 120W24A	31	L	03	64	JPL	MC	8901550		OSE

JPL 1868 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 85 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
B	8902382			CABLE ASSY 120W21	31	L	03	64	JPL	MC	8901550		OSE
B	8902383			CABLE ASSY 120W21A	31	L	03	64	JPL	MC	8901550		OSE
B	8902384			CABLE ASSY 120W25A	31	L	03	64	JPL	MC	8901550		OSE
J	8902385			BRACKET WELDMENT	36	L	03	64	JPL	MC	8902256		OSE
D	8902386			PLATE FAN	34	L	03	64	JPL	MC	8902387		OSE
J	8902387		A	FAN PLATE&CABLES ASSY	36	L	04	64	JPL	MC	8902564		OSE
J	8902387		A	FAN PLATE&CABLES ASSY	34	L	04	64	JPL	MC	8902458		OSE
J	8902387		A	FAN PLATE&CABLES ASSY	34	L	04	64	JPL	MC	8902403		OSE
J	8902387		A	FAN PLATE&CABLES ASSY	34	L	04	64	JPL	MC	8902330		OSE
J	8902387		A	FAN PLATE&CABLES ASSY	36	L	04	64	JPL	MC	8902256		OSE
B	8902388			CABLE ASSY 104WA2-34	34	L	02	64	JPL	MC	8900645		OSE
B	8902389			CABLE ASSY 104WA2-35	34	L	02	64	JPL	MC	8900645		OSE
B	8902390			CABLE ASSY 104RC2A6WA1	34	L	04	64	JPL	MC	8902398		OSE
D	8902392			PNL ASSY S/C READY-HOLD	31	L	03	64	JPL	MC	8901894		OSE
D	8902393			CONN BOX ASSY VIDEO PAIR	31	L	06	64	JPL	MC	8902555		OSE
D	8902393			CONN BOX ASSY VIDEO PAIR	31	L	06	64	JPL	MC	8900830		OSE
B	8902394			CABLE ASSY 209W590	31	L	03	64	JPL	MC	8902392		OSE
J	8902395			POWER PANEL ASSY GROUP 2	34	L	04	64	JPL	MC	8902458		OSE
J	8902395			POWER PANEL ASSY GROUP 2	34	L	04	64	JPL	MC	8902330		OSE
J	8902396			PANEL POWER GROUP 2	34	L	04	64	JPL	MC	8902395		OSE
J	8902397			CONNECTOR PANEL	34	L	04	64	JPL	MC	8902330		OSE
J	8902397			CONNECTOR PANEL	34	L	04	64	JPL	MC	8902458		OSE
J	8902398			REGULATOR 104RC2A6	34	L	04	64	JPL	MC	8902330		OSE
J	8902398			REGULATOR 104RC2A6	36	L	04	64	JPL	MC	8902458		OSE
D	8902399			PLATE BASE	34	L	04	64	JPL	MC	8902398		OSE
D	8902400			PLATE ADAPTER SOLA REG	34	L	04	64	JPL	MC	8902330		OSE
D	8902400			PLATE ADAPTER SOLA REG	34	L	04	64	JPL	MC	8902458		OSE
J	8902401			COVER REGULATOR	34	L	04	64	JPL	MC	8902398		OSE
J	8902402			CONSOLE POWER ASSY	34	L	04	64	JPL	MC	8902402		OSE
J	8902403			RACK POWER ASSY	34	L	04	64	JPL	MC	8902402		OSE
B	8902404			CABLE ASSY 104WA1-1	34	L	04	64	JPL	MC	8902403		OSE
B	8902405			CABLE ASSY 104WA1-2	34	L	04	64	JPL	MC	8902403		OSE
B	8902406			CABLE ASSY 104WA1-3	34	L	04	64	JPL	MC	8902403		OSE
B	8902407			CABLE ASSY 104WA1-4	34	L	04	64	JPL	MC	8902403		OSE
B	8902408			CABLE ASSY 104WA1-5	34	L	04	64	JPL	MC	8902403		OSE
B	8902409			CABLE ASSY 104WA1-6	34	L	04	64	JPL	MC	8902403		OSE
B	8902410			CABLE ASSY 104WA1-7	34	L	04	64	JPL	MC	8902403		OSE
B	8902411			CABLE ASSY 104WA1-8	34	L	04	64	JPL	MC	8902403		OSE
B	8902412			CABLE ASSY 104WA1-9	34	L	04	64	JPL	MC	8902403		OSE
B	8902413			CABLE ASSY 104WA1-10	34	L	04	64	JPL	MC	8902403		OSE

JPL 1200 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 86 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END LTR	TITLE	DISP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
B	8902414			CABLE ASSY 104WA1-11	34	L	04	64	JPL	MC	8902403		OSE
B	8902415			CABLE ASSY 104WA1-12	34	L	04	64	JPL	MC	8902403		OSE
B	8902416			CABLE ASSY 104WA1-13	34	L	04	64	JPL	MC	8902403		OSE
B	8902417			CABLE ASSY 104WA1-14	34	L	04	64	JPL	MC	8902403		OSE
B	8902418			CABLE ASSY 104WA1-15	34	L	04	64	JPL	MC	8902403		OSE
B	8902419			CABLE ASSY 104WA1-16	34	L	04	64	JPL	MC	8902403		OSE
B	8902420			CABLE ASSY 104WA1-17	34	L	04	64	JPL	MC	8902403		OSE
B	8902421			CABLE ASSY 104WA1-18	34	L	04	64	JPL	MC	8902403		OSE
B	8902422			CABLE ASSY 104WA1-19	34	L	04	64	JPL	MC	8902403		OSE
B	8902423			CABLE ASSY 104WA1-20	34	L	04	64	JPL	MC	8902403		OSE
B	8902424			CABLE ASSY 104WA1-21	34	L	04	64	JPL	MC	8902403		OSE
B	8902425			CABLE ASSY 104WA1-22	34	L	04	64	JPL	MC	8902403		OSE
B	8902426			CABLE ASSY 104WA1-23	34	L	04	64	JPL	MC	8902403		OSE
B	8902427			CABLE ASSY 104WA1-24	34	L	04	64	JPL	MC	8902403		OSE
B	8902428			CABLE ASSY 104WA1-25	34	L	04	64	JPL	MC	8902403		OSE
B	8902429			CABLE ASSY 104WA1-26	34	L	04	64	JPL	MC	8902403		OSE
B	8902430			CABLE ASSY 104WA1-27	34	L	04	64	JPL	MC	8902403		OSE
B	8902431			CABLE ASSY 104WA1-28	34	L	04	64	JPL	MC	8902403		OSE
B	8902432			CABLE ASSY 104WA1-29	34	L	04	64	JPL	MC	8902403		OSE
B	8902433			CABLE ASSY 104WA1-30	34	L	04	64	JPL	MC	8902403		OSE
B	8902434			CABLE ASSY 104WA1-31	34	L	04	64	JPL	MC	8902403		OSE
B	8902435			CABLE ASSY 104WA1-32	34	L	04	64	JPL	MC	8902403		OSE
B	8902436			CABLE ASSY 104WA1-33	34	L	04	64	JPL	MC	8902403		OSE
B	8902437			CABLE ASSY 104WA1-34	34	L	04	64	JPL	MC	8902403		OSE
B	8902438			CABLE ASSY 104WA1-35	34	L	04	64	JPL	MC	8902403		OSE
B	8902439			CABLE ASSY 104WA1-36	34	L	04	64	JPL	MC	8902403		OSE
B	8902440			CABLE ASSY 104WA1-37	34	L	04	64	JPL	MC	8902403		OSE
B	8902441			CABLE ASSY 104WA1-37	34	L	04	64	JPL	MC	8902403		OSE
B	8902442			CABLE ASSY 104WA1-39	34	L	04	64	JPL	MC	8902403		OSE
B	8902443			CABLE ASSY 104WA1-40	34	L	04	64	JPL	MC	8902403		OSE
B	8902444			CABLE ASSY 104WA1-41	34	L	04	64	JPL	MC	8902403		OSE
B	8902445			CABLE ASSY 104WA1-42	34	L	04	64	JPL	MC	8902403		OSE
B	8902446			CABLE ASSY 104WA1-43	34	L	04	64	JPL	MC	8902403		OSE
B	8902447			CABLE ASSY 104WA1-44	34	L	04	64	JPL	MC	8902403		OSE
B	8902448			CABLE ASSY 104WA1-45	34	L	04	64	JPL	MC	8902403		OSE
B	8902449			CABLE ASSY 104WA1-46	34	L	04	64	JPL	MC	8902403		OSE
B	8902450			CABLE ASSY 104WA1-47	34	L	04	64	JPL	MC	8902403		OSE
B	8902451			CABLE ASSY 104WA1-48	34	L	04	64	JPL	MC	8902403		OSE
B	8902452			CABLE ASSY 104WA1-49	34	L	04	64	JPL	MC	8902403		OSE
B	8902453			CABLE ASSY 104WA1-50	34	L	04	64	JPL	MC	8902403		OSE

JPL 1200 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 87 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	8902454			CABLE ASSY 104WA1-51	34	L	04	64	JPL	MC	8902403		OSE
J	8902457			CONSOLE POWER ASY GROUP2	34	L	04	64	JPL	MC			OSE
J	8902458			RACK PWR ASSY GROUP 2	34	L	04	64	JPL	MC	8902457		OSE
D	8902459			CABLING BLOCK DIAGRAM	34	L	04	64	JPL	MC	8902457		OSE
B	8902460			CABLE ASSY 104WA2-1	34	L	04	64	JPL	MC	8902458		OSE
B	8902461			CABLE ASSY 104WA2-2	34	L	04	64	JPL	MC	8902458		OSE
B	8902462			CABLE ASSY 104WA2-3	34	L	04	64	JPL	MC	8902458		OSE
B	8902463			CABLE ASSY 104WA2-4	34	L	04	64	JPL	MC	8902458		OSE
B	8902464			CABLE ASSY 104WA2-5	34	L	04	64	JPL	MC	8902458		OSE
B	8902465			CABLE ASSY 104WA2-6	34	L	04	64	JPL	MC	8902458		OSE
B	8902466			CABLE ASSY 104WA2-7	34	L	04	64	JPL	MC	8902458		OSE
B	8902467			CABLE ASSY 104WA2-8	34	L	04	64	JPL	MC	8902458		OSE
B	8902468			CABLE ASSY 104WA2-9	34	L	04	64	JPL	MC	8902458		OSE
B	8902469			CABLE ASSY 104WA2-10	34	L	04	64	JPL	MC	8902458		OSE
B	8902470			CABLE ASSY 104WA2-11	34	L	04	64	JPL	MC	8902458		OSE
B	8902471			CABLE ASSY 104WA2-12	34	L	04	64	JPL	MC	8902458		OSE
B	8902472			CABLE ASSY 104WA2-13	34	L	04	64	JPL	MC	8902458		OSE
B	8902473			CABLE ASSY 104WA2-14	34	L	04	64	JPL	MC	8902458		OSE
B	8902474			CABLE ASSY 104WA2-15	34	L	04	64	JPL	MC	8902458		OSE
B	8902475			CABLE ASSY 104WA2-16	34	L	04	64	JPL	MC	8902458		OSE
B	8902476			CABLE ASSY 104WA2-17	34	L	04	64	JPL	MC	8902458		OSE
B	8902477			CABLE ASSY 104WA2-18	34	L	04	64	JPL	MC	8902458		OSE
B	8902478			CABLE ASSY 104WA2-28	34	L	04	64	JPL	MC	8902458		OSE
B	8902478			CABLE ASSY 104WA2-19	34	L	04	64	JPL	MC	8902458		OSE
B	8902479			CABLE ASSY 104WA2-20	34	L	04	64	JPL	MC	8902458		OSE
B	8902480			CABLE ASSY 104WA2-21	34	L	04	64	JPL	MC	8902458		OSE
B	8902481			CABLE ASSY 104WA2-22	34	L	04	64	JPL	MC	8902458		OSE
B	8902482			CABLE ASSY 104WA2-23	34	L	04	64	JPL	MC	8902458		OSE
B	8902483			CABLE ASSY 104WA2-24	34	L	04	64	JPL	MC	8902458		OSE
B	8902484			CABLE ASSY 104WA2-25	34	L	04	64	JPL	MC	8902458		OSE
B	8902485			CABLE ASSY 104WA2-26	34	L	04	64	JPL	MC	8902458		OSE
B	8902486			CABLE ASSY 104WA2-27	34	L	04	64	JPL	MC	8902458		OSE
B	8902488			CABLE ASSY 104WA2-29	34	L	04	64	JPL	MC	8902458		OSE
B	8902489			CABLE ASSY 104WA2-30	34	L	04	64	JPL	MC	8902458		OSE
B	8902490			CABLE ASSY 104WA2-31	34	L	04	64	JPL	MC	8902458		OSE
B	8902491			CABLE ASSY 104WA2-32	34	L	04	64	JPL	MC	8902458		OSE
B	8902492			CABLE ASSY 104WA2-33	34	L	04	64	JPL	MC	8902458		OSE
B	8902493			CABLE ASSY 104WA2-34	34	L	04	64	JPL	MC	8902458		OSE
B	8902494			CABLE ASSY 104WA2-35	34	L	04	64	JPL	MC	8902458		OSE
J	8902495			CABLING BLOCK DIAGRAM	34	L	04	64	JPL	MC	8902402		OSE

JPL 1300 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 88 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	8902500			CABLE ASSY 104WR1	34	L	03	64	JPL	MC	8900648		OSE
B	8902501			CABLE ASSY 104WR2	34	L	03	64	JPL	MC	8900648		OSE
B	8902502			CABLE ASSY 104WR3	34	L	03	64	JPL	MC	8900648		OSE
B	8902503			CABLE ASSY 104WR4	34	L	03	64	JPL	MC	8900648		OSE
B	8902504			CABLE ASSY 104WR5	34	L	03	64	JPL	MC	8900648		OSE
B	8902505			CABLE ASSY 104WR6	34	L	03	64	JPL	MC	8900648		OSE
B	8902506		A	CABLE ASSY DUMMY RUN	29	L	03	65	JPL	MC	8902573		OSE
J	8902507		A	WIRING DIAGRAM	31	L	11	64	JPL	MC	8902509		OSE
J	8902508			PNL CONNECTOR MC209JB2	31	L	06	64	JPL	MC	8902509		OSE
J	8902509		A	CONSOLE J-BOX ASSY	31	L	07	64	JPL	MC	8901895		OSE
J	8902510		A	WIRING DIAGRAM	31	L	11	64	JPL	MC	8902512		OSE
J	8902511			PNL CONNECTOR MC209JB3	31	L	06	64	JPL	MC	8902512		OSE
J	8902512			CONSOLE J-BOX ASSY MC209	34	L	06	64	JPL	MC	8901894		OSE
J	8902513			W DIAG J-BOX MC209JB1	31	L	07	64	JPL	MC	8902515		OSE
J	8902514		A	PANEL/BOX MOD MC 209JB1	31	L	07	64	JPL	MC	8902515		OSE
J	8902515			J-BOX MC209JB1 ASSEMBLY	34	L	07	64	JPL	MC	8902198		OSE
J	8902516			LCOSE BREAKER PNL ASSY	31	L	10	64	JPL	MC	8901894		OSE
B	8902517		B	CABLE ASSY 102WV1B	31	L	12	64	JPL	MC	8901550		OSE
B	8902518		B	CABLE ASSY 102WV2B	31	L	12	64	JPL	MC	8901550		OSE
B	8902520		B	CABLE ASSY 108WV2B	31	L	12	64	JPL	MC	8901550		OSE
B	8902521		B	CABLE ASSY 108WV3B	31	L	12	64	JPL	MC	8901550		OSE
B	8902522			CABLE ASSY 120WT21	31	L	03	64	JPL	MC	8901550		OSE
B	8902523			CABLE ASSY 120WV21A	31	L	03	64	JPL	MC	8901550		OSE
B	8902524		A	CABLE ASSY 108WV4A	31	L	08	64	JPL	MC	8901550		OSE
B	8902525			CABLE ASSY 107W8B	31	L	03	64	JPL	MC	8901550		OSE
B	8902527			CABLE ASSY 107W9B	31	L	03	64	JPL	MC	8901550		OSE
B	8902529			CABLE ASSY 107W5B	31	L	03	64	JPL	MC	8901550		OSE
B	8902530			CABLE ASSY 107W6B	31	L	03	64	JPL	MC	8901550		OSE
B	8902531		B	CABLE ASSY 104WV6B-1	31	L	12	64	JPL	MC	8901550		OSE
B	8902532		B	CABLE ASSY 104WV6B-3	31	L	12	64	JPL	MC	8901550		OSE
B	8902533			CABLE ASSY 108W14	31	L	03	64	JPL	MC	8901550		OSE
B	8902534		A	CABLE ASSY 120W5B	31	L	05	64	JPL	MC	8901550		OSE
B	8902535		A	CABLE ASSY 109WVGA1B	31	L	11	64	JPL	MC	8901550		OSE
B	8902536			BULK CABLE CONFIGURATION	31	L	06	64	JPL	MC			OSE
B	8902537		A	CABLE ASSY 120W6B	31	L	05	64	JPL	MC	8901550		OSE
B	8902538		A	CABLE ASSY 120W7B	31	L	05	64	JPL	MC	8901550		OSE
B	8902539		A	CABLE ASSY 120W8B	31	L	05	64	JPL	MC	8901550		OSE
B	8902540			CABLE ASSY 116W5	31	L	03	64	JPL	MC	8901550		OSE
B	8902541			CABLE ASSY 193W1	31	L	03	64	JPL	MC	8901550		OSE
B	8902542			CABLE ASSY 193W2	31	L	03	64	JPL	MC	8901550		OSE

JPL 1300 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 89 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	REFERENCE NUMBER
B	8902543		A	CABLE ASSY 108WV48	31	L	08	64	JPL	MC	8901550		OSE
B	8902544			CABLE ASSY 207W1	31	L	04	64	JPL	MC	8902198		OSE
B	8902545		A	CABLE ASSY 220W1	32	L	07	64	JPL	MC	8902198		OSE
B	8902546		A	CABLE ASSY 220W2	32	L	07	64	JPL	MC	8902198		OSE
B	8902547			CABLE ASSY 207W2	31	L	04	64	JPL	MC	8902198		OSE
B	8902548			CABLE ASSY 206W2	31	L	04	64	JPL	MC	8902198		OSE
B	8902549			CABLE ASSY 206W1	31	L	04	64	JPL	MC	8902198		OSE
B	8902550			CABLE ASSY 205W1	31	L	04	64	JPL	MC	8902198		OSE
B	8902551			CABLE ASSY 208W1	31	L	04	64	JPL	MC	8902198		OSE
B	8902552		A	CABLE ASSY 220W3	32	L	07	64	JPL	MC	8902198		OSE
B	8902553		A	CABLE ASSY 220W4	32	L	07	64	JPL	MC	8902198		OSE
B	8902554			CABLE ASSY 220W20	31	L	04	64	JPL	MC	8902198		OSE
B	8902557			BLANK	34	L	04	64	JPL	MC	8902403		OSE
B	8902558			SPACER	34	L	04	64	JPL	MC	8902403		OSE
B	8902558			SPACER	34	L	04	64	JPL	MC	8902458		OSE
C	8902559			Z FITTING	34	L	04	64	JPL	MC	8902403		OSE
C	8902559			Z FITTING	34	L	04	64	JPL	MC	8902458		OSE
C	8902560			CLAMP	34	L	04	64	JPL	MC	8902403		OSE
C	8902560			CLAMP	34	L	04	64	JPL	MC	8902458		OSE
C	8902561			RAIL	34	L	04	64	JPL	MC	8902403		OSE
C	8902561			RAIL	34	L	04	64	JPL	MC	8902458		OSE
D	8902562			SPACER SLIDE	34	L	04	64	JPL	MC	8902403		OSE
D	8902563			SELF POWER SELF TEST	31	L	09	64	JPL	MC			OSE
J	8902564		A	RACK POWER ASSY LAUNCH	34	L	07	64	JPL	MC	8902565		OSE
J	8902565			CONSOLE POWER ASSY	34	L	04	64	JPL	MC			OSE
B	8902566			CABLE ASSY 102WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902567			CABLE ASSY 104WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902568			CABLE ASSY 105WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902569			CABLE ASSY 106WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902570			CABLE ASSY 107WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902571			CABLE ASSY 107WX91	31	L	05	64	JPL	MC	8901550		OSE
B	8902572			CABLE ASSY 108WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902574		A	CABLE ASSY DUMMY RUN	29	L	03	65	JPL	MC	8902573		OSE
B	8902575			CABLE ASSY VIDEO PAIR	31	L	04	64	JPL	MC	8902198		OSE
B	8902576			CABLE ASSY 116WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902577			CABLE ASSY 197WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902578			CABLE ASSY 180W2	31	L	10	64	JPL	MC	127501		OSE
B	8902579			CABLE ASSY 180W2A	31	L	10	64	JPL	MC	127501		OSE
B	8902580			CABLE ASSY 180W3	31	L	10	64	JPL	MC	127501		OSE
B	8902581			CABLE ASSY 180W1	31	L	10	64	JPL	MC	127501		OSE

JPL 1896 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 90 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	REFERENCE NUMBER
B	8902591			CABLE ASSY 204WA1-1	34	L	04	64	JPL	MC	8902564		OSE
B	8902592			CABLE ASSY 204WA1-2	34	L	04	64	JPL	MC	8902564		OSE
B	8902593			CABLE ASSY 204WA1-3	34	L	04	64	JPL	MC	8902564		OSE
B	8902594			CABLE ASSY 204WA1-4	34	L	04	64	JPL	MC	8902564		OSE
B	8902595			CABLE ASSY 204WA1-5	34	L	04	64	JPL	MC	8902564		OSE
B	8902596			CABLE ASSY 204WA1-6	34	L	04	64	JPL	MC	8902564		OSE
B	8902597			CABLE ASSY 204WA1-7	34	L	04	64	JPL	MC	8902564		OSE
B	8902598			CABLE ASSY 204WA1-8	34	L	04	64	JPL	MC	8902564		OSE
B	8902599			CABLE ASSY 204WA1-9	34	L	04	64	JPL	MC	8902564		OSE
B	8902600			CABLE ASSY 204WA1-10	34	L	04	64	JPL	MC	8902564		OSE
B	8902601			CABLE ASSY 204WA1-11	34	L	04	64	JPL	MC	8902564		OSE
B	8902602			CABLE ASSY 204WA1-12	34	L	04	64	JPL	MC	8902564		OSE
B	8902603			CABLE ASSY 204WA1-13	34	L	04	64	JPL	MC	8902564		OSE
B	8902604			CABLE ASSY 204WA1-14	34	L	04	64	JPL	MC	8902564		OSE
B	8902605			CABLE ASSY 204WA1-15	34	L	04	64	JPL	MC	8902564		OSE
B	8902606			CABLE ASSY 204WA1-16	34	L	04	64	JPL	MC	8902564		OSE
B	8902607			CABLE ASSY 204WA1-17	34	L	04	64	JPL	MC	8902564		OSE
B	8902608			CABLE ASSY 204W1	34	L	04	64	JPL	MC	8902564		OSE
B	8902609			CABLE ASSY 204W2	34	L	04	64	JPL	MC	8902564		OSE
B	8902610			CABLE ASSY 204W3	34	L	04	64	JPL	MC	8902564		OSE
B	8902611		A	CABLE ASSY 204W4	34	L	08	64	JPL	MC	8902564		OSE
B	8902612			CABLE ASSY 204W5	34	L	04	64	JPL	MC	8902564		OSE
B	8902613			CABLE ASSY 204W6	34	L	04	64	JPL	MC	8902564		OSE
B	8902614		A	CABLE ASSY 204W7	34	L	08	64	JPL	MC	8902564		OSE
B	8902615			CABLE ASSY 204W8	34	L	04	64	JPL	MC	8902564		OSE
B	8902616			CABLE ASSY 204W9	34	L	04	64	JPL	MC	8902564		OSE
B	8902617			CABLE ASSY 204W10	34	L	04	64	JPL	MC	8902564		OSE
B	8902618		A	CABLE ASSY 204W11	34	L	04	64	JPL	MC	8902564		OSE
J	8902619		A	LC OSE TROUBLE SCHEMATIC	31	L	11	64	JPL	MC			OSE
J	8902620			L/P ISOLATION XFMR ASSY	31	L	06	64	JPL	MC	8902573		OSE
D	8902621			W DIAG L/P ISOLATION	31	L	06	64	JPL	MC	8902620		OSE
J	8902622			B/H ISOLATION XFMR ASSY	31	L	06	64	JPL	MC	8902573		OSE
D	8902623			W DIAG B/H ISOLATION	31	L	06	64	JPL	MC	8902622		OSE
C	8902633			LATCH PLATE	34	L	04	64	JPL	MC	8902403		OSE
C	8902633			LATCH PLATE	34	L	04	64	JPL	MC	8902458		OSE
C	8902633			LATCH PLATE	34	L	04	64	JPL	MC	8902458		OSE
J	8902634			PYRO ARMING& SEPARATION	35	L	04	64	JPL	MC	8901919		OSE
C	8902635			RAIL	34	L	04	64	JPL	MC	8902564		OSE
C	8902636			CLAMP	34	L	04	64	JPL	MC	8902564		OSE
J	8902637			BRACKET SLIDE MOUNT WELD	34	L	04	64	JPL	MC	8902403		OSE

JPL 1896 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 91 — DATE LISTED 08/27/65

REV	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	8902639		A	CABLE ASSY 104WCB0--1	31	L	09	64	JPL	MC	8902563		OSE
B	8902640		A	CABLE ASSY 104WC20--2	31	L	09	64	JPL	MC	8902563		OSE
B	8902641			CABLE ASSY 103WX90	31	L	05	64	JPL	MC	8901550		OSE
B	8902642			CABLE ASSY 199WX90	31	L	05	64	JPL	MC	8901550		OSE
J	8902643			STAND ASSY WIRING JIG	35	L	11	64	JPL	MC			OSE
D	8902645			COVER DUST	35	L	11	64	JPL	MC			OSE
B	8902659			CHATTER DET TEST CONN	35	L	05	64	JPL	MC			OSE
D	8902660			RUBBER PAD	35	L	05	64	JPL	MC	8901544		OSE
B	8902663			CABLE ASSY DR 209W208	31	L	07	64	JPL	MC	8902573		OSE
D	8902674			MONITOR PNL ASSY	35	LX	05	64	JPL	MC			OSE
C	8902675			SCHEMATIC DIAG PYROMON	35	LX	05	64	JPL	MC			OSE
B	8902676		A	CABLE ASSY 120WR11	32	L	08	64	JPL	MC	8800359		OSE
J	8902677		A	CASE 6 HARNESS JIG FIXT	35	L	09	64	JPL	MC	4901213		OSE
B	8902678			CABLE ASSY 109W7C	31	L	06	64	JPL	MC	8901550		OSE
B	8902680			CABLE ASSY 102W3B	31	L	08	64	JPL	MC	8901550		OSE
B	8902681			CABLE ASSY 102W4B	31	L	08	64	JPL	MC	8901550		OSE
B	8902682			CABLE ASSY 109W5B	31	L	08	64	JPL	MC	8901550		OSE
B	8902684			CABLE ASSY 120W20	31	L	08	64	JPL	MC	8901550		OSE
B	8902685			CABLE ASSY 204WA1--18	33	L	07	64	JPL	MC	8902564		OSE
B	8902686			CABLE ASSY 204W11A	31	L	07	64	JPL	MC	8902198		OSE
B	8902689			CABLE ASSY 206W3	32	L	07	64	JPL	MC	8902198		OSE
B	8902690			CABLE ASSY 120WR28	32	L	08	64	JPL	MC	8800359		OSE
B	8902691			CABLE ASSY 120WR29	32	L	08	64	JPL	MC	8800359		OSE
B	8902692		A	CABLE ASSY 120WR38	34	L	08	64	JPL	MC	8800359		OSE
B	8902693			CABLE ASSY 120WR39	32	L	07	64	JPL	MC	8800359		OSE
B	8902694			CABLE ASSY 116W6	31	L	08	64	JPL	MC	8901550		OSE
C	8902695			BRACKET SWITCH	31	L	07	64	JPL	MC	8901553		OSE
B	8902696			CABLE ASSY 102WV3B	31	L	08	64	JPL	MC	8901550		OSE
B	8902697			CABLE ASSY 102WV4B	31	L	08	64	JPL	MC	8901550		OSE
B	8902698			CABLE ASSY 109WV5B	31	L	08	64	JPL	MC	8901550		OSE
B	8902699			CABLE ASSY 108WC1	31	L	09	64	JPL	MC	8902563		OSE
B	8902700			CABLE ASSY 204WA2--19	34	L	12	64	JPL	MC	8902055		OSE
B	8902704			CABLE ASSY 197WC2	29	L	04	65	JPL	MC	8901550		OSE
D	9133357			SHAKE FIXT CANOPUS TRACK	37	IO			JPL	MC			MISC
C	9133363			S/F PENN--KEYSTONE CONN	37	IO			JPL	MC			MISC
D	9133386			S/F PENN--KEYSTONE RELAYS	37	IO			JPL	MC			MISC
J	9211630	W		T/M PROCESSING STATION	31	IO			JPL	MC			OSE
J	9330001			JUNCTION BOX ASSY	32	L	04	63	JPL	MC			OSE
J	9330002			DECK ASSEMBLY	32	L	04	63	JPL	MC	9330001		OSE
D	9330003			RAIL WELDMENT	32	L	04	63	JPL	MC	9330001		OSE

JPL 1288 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 92 — DATE LISTED 08/27/65

REV	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	9330004			RAIL ASSEMBLY	32	L	04	63	JPL	MC	9330001		OSE
D	9330005			PANEL FRONT	32	L	04	63	JPL	MC	9330001		OSE
D	9330006			PANEL REAR	32	L	04	63	JPL	MC	9330001		OSE
D	9330007			SHELF CABLE	32	L	04	63	JPL	MC	9330001		OSE
C	9330008			MOUNT	32	L	04	63	JPL	MC	9330001		OSE
C	9330009			BRACKET CONN PANEL	32	L	04	63	JPL	MC	9330001		OSE
J	9330010			INSULATOR	32	L	04	63	JPL	MC	9330001		OSE
J	9330011			PATCH PANEL ASSY	32	L	04	63	JPL	MC			OSE
D	9330012			PANEL FRONT	32	L	04	63	JPL	MC	9330011		OSE
J	9330013			CHASSIS SUBASSY	32	L	04	63	JPL	MC	9330011		OSE
D	9330014			DECK PATCH PANEL	32	L	04	63	JPL	MC	9330011		OSE
C	9330015			SPACER HINGE	32	L	04	63	JPL	MC	9330001		OSE
C	9330015			SPACER HINGE	32	L	04	63	JPL	MC	9330011		OSE
C	9330016			HINGE	32	L	04	63	JPL	MC	9330001		OSE
C	9330016			HINGE	32	L	04	63	JPL	MC	9330011		OSE
B	9330017			MOUNT CLAMP	32	L	04	63	JPL	MC	9330011		OSE
D	9330018			PANEL CONNECTOR	32	L	04	63	JPL	MC	9330001		OSE
D	9372317			S/F T4086/T4143 XDUCERS	37	IO			JPL	MC			MISC
C	9372905			S/F N PRESS TRANSDUCERS	37	IO			JPL	MC			MISC
C	9372906			S/F OXIDIZER	37	IO			JPL	MC			MISC
D	9372959			S/F JET VANE SERVO	37	IO			JPL	MC			MISC
J	9373006		B	TEMP CONTROL BOX 4A14	37	IO			JPL	MC			MISC
C	9373042			S/F M-1 CANOPUS TRACKER	37	IO			JPL	MC			MISC
J	9373065			S/F MC CHASSIS BASIC	37	IO			JPL	MC			MISC
C	9373083			S/F ADAPTER OPTICS	37	IO			JPL	MC			MISC
D	9373118			ADAPTER PLATE BASIC CHAS	37	IO			JPL	MC			MISC
D	9373119			SLIDER PLATE BASIC CHASS	37	IO			JPL	MC			MISC
J	9373165			S/F MC SOLAR PANEL	37	IO			JPL	MC			MISC
J	9373172			S/F MC SPACECRAFT	37	IO			JPL	MC			MISC
D	9373173			DR--TONGUE SLIDER PLATE	37	IO			JPL	MC			MISC
J	9373174			VERTICAL SHAKE FIXTURE	37	IO			JPL	MC			MISC
D	9373177			LT--WT ADAPTER PLATE	37	IO			JPL	MC			MISC
J	9373217		C	HEAT EXCHANGER DETAIL	37	IO			JPL	MC			MISC
J	9373218		D	HEAT EXCHANGER ASSY	37	IO			JPL	MC			MISC
B	9373221			S/F PITCH--YAW ROLL JETS	37	IO			JPL	MC			MISC
D	9373225			S/F ION CHAMBER UNIT 26	37	IO			JPL	MC			MISC
D	9373236			S/F PYRO ARMING SWITCH	37	IO			JPL	MC			MISC
C	9373254			S/F OXIDIZER ASSY	37	IO			JPL	MC			MISC
C	9373259		B	CLAMPING FRAME	37	IO			JPL	MC			MISC
D	9373260			S/F MIDCOURSE PROP SYS	37	OM	23		JPL	MC			MISC

JPL 1288 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 93 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
D	9373267			S/F ATTITUDE CONTROL SYS	37	IO			JPL	MC			MISC
C	9373270			S/F NARROW ANG MARS GATE	37	IO			JPL	MC			MISC
D	9373272			S/F PLANETARY SENS 31A1	37	IO			JPL	MC			MISC
D	9373278			S/F VIDICON CAMERA	37	IO			JPL	MC			MISC
D	9373280			S/F COSMIC DUST DETECTOR	37	IO			JPL	MC			MISC
D	9373302			VACUUM TEST FIXTURE	37	IO			JPL	MC			MISC
J	9373303		A	SOL PAN MTG FXT VAC TEST	37	IO			JPL	MC			MISC
D	9373304			LAMP BANK ASSY	37	IO			JPL	MC			MISC
C	9373305		A	SOL PAN LAMP BANK	37	IO			JPL	MC			MISC
B	9373307		A	SOLAR PANEL LAMP BANK	37	IO			JPL	MC			MISC
C	9373308		B	HEAT EXCHANGR BOT SPACER	37	IO			JPL	MC			MISC
D	9373318			S/F PLANETARY SCIENCE	37	IO			JPL	MC			MISC
D	9373320			VERT BASE PLATE M/C MTR	37	IO			JPL	MC			MISC
J	9373321			SLIDER-PLATE M/C MOTOR	37	IO			JPL	MC			MISC
D	9373466			S/F SOLAR PANEL RETARDER	37	IO			JPL	MC			MISC
J	9373515			S/F MAG TAPE RECORDER	37	IO			JPL	MC			MISC
D	9373528			CENTRIFUGE ADAPTER PLATE	37	IO			JPL	MC			MISC
J	9373545			S/F SOLAR PAN/DAMPER	37	IO			JPL	MC			MISC
J	9373548			S/F MC CASE 4AB	37	IO			JPL	MC			MISC
J	9373549			S/F SOLAR PANEL RETARDER	37	IO			JPL	MC			MISC
D	9373550			S/F SOLAR PANEL RETARDER	37	IO			JPL	MC			MISC
C	9373551			S/F SOLAR PANEL RETARDER	37	IO			JPL	MC			MISC
D	9373573			S/F MIN PRESS XDUCER	37	IO			JPL	MC			MISC
D	9373576			S/F HI GAIN ANTENNA	37	IO			JPL	MC			MISC
C	9373578			S/F TV STORAGE REC MTR	37	IO			JPL	MC			MISC
D	9373649			7X14 DOOR ADAPTER RING	37	IO			JPL	MC			MISC
C	9373685			S/F LWR CABLE HI GAIN	37	IO			JPL	MC			MISC
D	9373686			S/F LWR CABLE HI GAIN	37	IO			JPL	MC			MISC
J	9373690			S/F UV PHOTOMETER 30 DEG	37	IO			JPL	MC			MISC
J	9373697			SETUP FOR VACUUM TEST	37	IO			JPL	MC			MISC
D	9378105			S/F 3 TV SHUTTER ASSYS	37	IO			JPL	MC			MISC
J	01-20100	E	A	OPERATIONAL SUPPORT	33	L	10	64	JPL	MC			OSE
B	LM 01-20100	E		OPERATIONAL SUPPORT	33	L	10	64	JPL	MC	01-20100		OSE
J	01-20101	E	A	RACK ASSY UNIT 1-	33	L	10	64	JPL	MC	01-20111E01		OSE
B	LM 01-20101	E		RACK ASSY UNIT	33	L	10	64	JPL	MC	01-20101		OSE
J	01-20102	E	A	RACK ASSY UNIT 2-	33	L	10	64	JPL	MC	01-20111E01		OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 94 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
B	LM 01-20102	E		RACK ASSY	33	L	10	64	JPL	MC	01-20102		OSE
J	01-20103	E	A	RACK ASSY UNIT 3-	33	L	10	64	JPL	MC	01-20112E01		OSE
B	LM 01-20103	E		RACK ASSY UNIT 3	33	L	10	64	JPL	MC	01-20103		OSE
J	01-20104	E	B	RACK ASSY UNIT 4	33	L	10	64	JPL	MC	01-20112E01		OSE
B	01-20104	E		RACK ASSY	33	L	10	64	JPL	MC	01-20104		OSE
D	01-20111	E	A	CABINET ONE ASSY	33	L	10	64	JPL	MC	01-20100E01		OSE
D	01-20112	E	A	CABINET TWO ASSY	33	L	10	64	JPL	MC	01-20100E01		OSE
D	01-20122	E	A	OSCILLOSCOPE	33	L	10	64	JPL	MC	01-20101E01		OSE
D	01-20123	E	A	SPECTRUM ANALYZER 1A4	33	L	10	64	JPL	MC	01-20101E01		OSE
D	01-20124	E	A	WAVE ANALYZER	33	L	10	64	JPL	MC	01-20101E01		OSE
D	01-20138	E	A	DUAL OSCILLOSCOPE	33	L	10	64	JPL	MC	01-20102E01		OSE
D	01-20139	E	A	VACUUM TUBE VOLTMETER	33	L	10	64	JPL	MC	01-20102E01		OSE
D	01-20140	E	A	PLUS 300 VOLTS PWR	33	L	10	64	JPL	MC	01-20102E01		OSE
D	01-20141	E	A	PWR SUPPLY PLUS 15VDC-	33	L	10	64	JPL	MC	01-20104E01		OSE
D	01-20141	E	A	PWR SUPPLY PLUS 15VDC-	33	L	10	64	JPL	MC	01-20102E01		OSE
D	01-20142	E	A	PLUS150 VOLTS PWR SUPP	33	L	10	64	JPL	MC	01-20102E01		OSE
D	01-20143	E	A	POWER SUPPLY PLUS 7 DC-	33	L	10	64	JPL	MC	01-20102E01		OSE
D	01-20147	E	A	ISOLATION AMPLIFIERS	33	L	10	64	JPL	MC	01-20103E01		OSE
D	01-20148	E	A	MODE INDICATOR PANEL ASY	33	L	10	64	JPL	MC	01-20103E01		OSE
D	01-20149	E	A	DIGITAL VOLTMETER	33	L	10	64	JPL	MC	01-20103E01		OSE
D	01-20152	E	A	ELECTRONIC COUNTER 3A7	33	L	10	64	JPL	MC	01-20103E01		OSE
D	01-20154	E	A	PWR SUP S/C 28 VOLTS	33	L	10	64	JPL	MC	01-20103E01		OSE
D	01-20155	E	A	PWR SUPPLY	33	L	10	64	JPL	MC	01-20103E01		OSE
J	01-20157	E	A	TERMINAL BOARD	33	L	10	64	JPL	MC	01-20103E01		OSE
B	LM 01-20157	E		TERMINAL BD ASSY	33	L	10	64	JPL	MC	01-20157		OSE
J	01-20160	E	A	PANEL ASSY S/C	33	L	10	64	JPL	MC	01-20104E01		OSE
B	LM 01-20160	E01		PANEL ASSY S/C	33	L	10	64	JPL	MC	01-20160E01		OSE
D	01-20162	E	A	MICROVOLT METER	33	L	10	64	JPL	MC	01-20104E01		OSE
J	01-20163	E	A	PWR METER ASSY S/C	33	L	10	64	JPL	MC	01-20104		OSE
[illegible]	01-20166	E	A	PWR METER ASSY	33	L	10	64	JPL	MC	01-20104E01		OSE
D	01-20167	E	A	OSCILLATOR WIDE RANGE	33	L	10	64	JPL	MC	01-20104E01		OSE
D	01-20411	D		INVERTERS MODULE	33	V	01	65	MOI	MC			OSE
A	BM 01-20411	D01		INVERTERS MODULE	33	V	01	65	MOI	MC			OSE
D	01-20414	D		TWO 4 INPUT NAND GATES	33	V	01	65	MOI	MC			OSE
D	01-20417	D		TWO HIGH PWR 4 INPUT MOD	33	V	01	65	MOI	MC			OSE
A	BM 01-20417	D01		TWO HIGH PWR 4 INPUT	33	V	01	65	MOI	MC			OSE
D	01-20418	D		NPN LAMP/RELAY DR MODULE	33	V	01	65	MOI	MC			OSE
A	BM 01-20418	D01		NPN LAMP/RELAY DRIVER	33	V	01	65	MOI	MC			OSE
D	01-20421	D		9 INPUT NAND GATE MODULE	33	V	01	65	MOI	MC			OSE
A	BM 01-20421	D01		9 INPUT NAND GATE MODULE	33	V	01	65	MOI	MC			OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 95 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	01-20428	D	B	CLOCK SHAPER/DELAY UNIT	33	V	12	64	MOI	MC	01-21317D01		OSE
D	01-20435	D		TRIGGER SHAPER MODULE	33	V	01	65	MOI	MC			OSE
A	BM 01-20435	D01		TRIGGER SHAPER MODULE	33	V	01	65	MOI	MC			OSE
D	01-20439	D		IMC LOGIC TO PRINTER MOC	33	V	01	65	MOI	MC			OSE
A	BM 01-20439	D01		IMC LOGIC TO PRINTER	33	V	01	65	MOI	MC			OSE
A	01-21096	D01		LOGIC LEVEL CONV 3A5A12	33	V	01	65	MOI	MC			OSE
A	01-21096	D02		LOGIC LEVEL CONV 3A5A12	33	V	01	65	MOI	MC			OSE
A	01-21096	D03		LOGIC LEVEL CONV 3A5A12	33	V	01	65	MOI	MC			OSE
A	01-21099	D01		PNP LAMP RELAY DR 3A5A10	33	V	01	65	MOI	MC			OSE
A	01-21099	D02		PNP LAMP/RELAY DR 3A5A8	33	V	01	65	MOI	MC			OSE
	01-21101	D01		BINARY COUNTER 3A5A1	33	O			MOI	MC			OSE
A	01-21101	D03		1A5A3 ASYCHRONUS	33	V	01	65	MOI	MC			OSE
A	BM 01-21101	D03		ASYNCHRONUS	33	V	01	65	MOI	MC			OSE
	01-21102	D01		3 VOLT PICKOFF 3A5A3	33	IO			MOI	MC			OSE
	01-21102	D02		32 BOLT PICKOFF 3A5A4	33	IO			MOI	MC			OSE
A	01-21104	D01		PRINTED CIRCUIT BD	33	V	01	65	MOI	MC			OSE
	01-21104	D02		ADDRESS COMPARITOR 1A6A5	33				MOI	MC			OSE
A	01-21104	D03		PC BOARD	33	V	01	65	MOI	MC			OSE
	01-21104	D04		BINARY OCT MATRIX 3A5A9	33	O			MOI	MC			OSE
A	01-21104	D06		PRINTED CIRCUIT BD	33	V	01	65	MOI	MC			OSE
A	BM 01-21104	D06		BINARY TO OCTAL	33	V	01	65	MOI	MC			OSE
A	01-21107	D01		CLOCK GENERATOR 3A5A6	33	V	01	65	MOI	MC			OSE
A	01-21115	D01		BAY PWR SUPPLY	33	V	01	65	MOI	MC			OSE
A	BM 01-21115	D01		BAY PWR SUPPLY	33	V	01	65	MOI	MC			OSE
	01-21125	D01		RANDOM NOISE GEN 1A1	33	O			MOI	MC			OSE
	01-21126	D		FUNCTION GENERATOR 1A2	33	O			MOI	MC			OSE
	01-21127	D		TRUE RMS VOLTMETER 1A3	33	O			MOI	MC			OSE
	01-21128	D01		DC VOLTMETER 1A4	33	O			MOI	MC			OSE
A	01-21129	D01		DETECTOR TESTER BAY	33	V	01	65	MOI	MC			OSE
A	BM 01-21129	D01		BAY ASSEMBLY DET TESTOR	33	V	01	65	MOI	MC			OSE
A	01-21130	D01		SUBSYSTEM COMMAND MON	33	V	01	65	MOI	MC			OSE
A	BM 01-21130	D01		BAY ASSY SUBSYS COMMAND	33	V	01	65	MOI	MC			OSE
A	01-21131	D01		COMMAND PROGRAMER BAY	33	V	01	65	MOI	MC			OSE
A	BM 01-21131	D01		BAY ASSEMBLY COMMAND	33	V	01	65	MOI	MC			OSE
A	01-21132	D		CONTROL PANEL	33	V	01	65	MOI	MC			OSE
A	BM 01-21132	D01		CONTROL PANEL	33	V	01	65	MOI	MC			OSE
A	01-21133	D01		RELAY ASSY 1A11	33	V	01	65	MOI	MC			OSE
A	BM 01-21133	D01		RELAY ASSEMBLY	33	V	01	65	MOI	MC			OSE
A	01-21134	D01		GRAPHIC RECORDER	33	V	01	65	MOI	MC			OSE
A	BM 01-21134	D01		GRAPHIC RECORDER	33	V	01	65	MOI	MC			OSE

JPL 1860 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 96 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
	01-21135	D01		2.4 KC PWR SUPPLY 2A1	33	O			MOI	MC			OSE
	01-21136	D01		FREQUENCY COUNTER 2A2	33	O			MOI	MC			OSE
	01-21137	D01		OSCILLOSCOPE 2A3	33	O			MOI	MC			OSE
A	01-21138	D01		TEST POINT SELECTOR	33	V	01	65	MOI	MC			OSE
A	BM 01-21138	D01		TEST POINT SELECTOR	33	V	01	65	MOI	MC			OSE
A	01-21139	D01		DC PWR DIST ASSY	33	V	01	65	MOI	MC			OSE
A	BM 01-21139	D01		DC PWR DIST ASSY	33	V	01	65	MOI	MC			OSE
	01-21140	D01		INTERCOMM BLANK PAN 2A5	33	O			MOI	MC			OSE
	01-21141	D01		DIFFERENTIAL AMPL 2A7	33	O			MOI	MC			OSE
A	01-21142	D01		PWR CONTROL DRAWER	33	V	01	65	MOI	MC			OSE
A	BM 01-21142	D01		POWER CONTROL DRAWER	33	V	01	65	MOI	MC			OSE
	01-21143	D01		PRINTER 2A9	33	O			MOI	MC			OSE
	01-21144	D01		DATA LOGGER INPT SEL 3A1	33	O			MOI	MC			OSE
	01-21145	D01		DIGITAL VOLTMETER 3A4	33	O			MOI	MC			OSE
	01-21146	D01		DATA LOGGER CONTROL 3A5	33	O			MOI	MC			OSE
	01-21147	D01		FUNCT ELEM TEST DWR 3A7	33	O			MOI	MC			OSE
	01-21148	D		DATA LOGGER PWR SUP 3A9	33	O			MOI	MC			OSE
A	01-21163	D04		PCB 1A7A3 CRL DRIVER	33	V	01	65	MOI	MC			OSE
A	BM 01-21163	D04		CARD ASSY CRL DRIVER	33	V	01	65	MOI	MC			OSE
A	01-21171	D02		DIG PHASE SHIFTER	33	V	01	65	MOI	MC			OSE
A	BM 01-21171	D02		DIGITAL PHASE SHIFTER	33	V	01	65	MOI	MC			OSE
A	01-21172	D01		DIG SHIFTER #3	33	V	01	65	MOI	MC			OSE
A	BM 01-21172	D01		DIGITAL PHASE	33	V	01	65	MOI	MC			OSE
A	01-21174	D01		SHIFT REGISTER	33	V	01	65	MOI	MC			OSE
A	BM 01-21174	D01		SHIFT REGISTER	33	V	01	65	MOI	MC			OSE
A	01-21174	D05		PCB 1A7A5 SHIFT REGISTER	33	V	01	65	MOI	MC			OSE
A	BM 01-21174	D05		SHIFT REGISTER	33	V	01	65	MOI	MC			OSE
A	01-21174	D06		PCB 1A7A6 SHIFT REGISTER	33	V	01	65	MOI	MC			OSE
A	BM 01-21174	D06		SHIFT REGISTER	33	V	01	65	MOI	MC			OSE
A	01-21174	D07		PRINTED CIRCUIT BD	33	V	01	65	MOI	MC			OSE
A	BM 01-21174	D07		SHIFT REGISTER	33	V	01	65	MOI	MC			OSE
A	01-21176	D01		GRD MOD BD #C#	33	V	01	65	MOI	MC			OSE
A	BM 01-21176	D01		GRD MODULATOR BD #C#	33	V	01	65	MOI	MC			OSE
A	01-21177	D01		MOD SUM AMP	33	V	01	65	MOI	MC			OSE
A	BM 01-21177	D01		MOD SUM AMP	33	V	01	65	MOI	MC			OSE
A	01-21178	D01		COMM MOD AMP	33	V	01	65	MOI	MC			OSE
A	BM 01-21178	D01		COMM MOD AMP	33	V	01	65	MOI	MC			OSE
A	01-21179	D01		OSC SHAPER	33	V	01	65	MOI	MC			OSE
A	BM 01-21179	D01		OSC SHAPER	33	V	01	65	MOI	MC			OSE
A	01-21200	D01		GND MOD BD #A#	33	V	01	65	MOI	MC			OSE

JPL 1860 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 97 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DEPT. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
A	BM 01-21200	D01		GROUND MOD BD A	33	V	01	65	MOI	MC			OSE
A	01-21205	D		SW TERM ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21205	D01		SWITCH TERMINATION	33	V	01	65	MOI	MC			OSE
A	01-21206	D		VCT GATE ASY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21206	D01		VCT GATE MATRIX	33	V	01	65	MOI	MC			OSE
A	01-21207	D		FS ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21207	D01		FS COUNTER	33	V	01	65	MOI	MC			OSE
A	01-21208	D		ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21208	D01		QC ERROR DETECTOR	33	V	01	65	MOI	MC			OSE
A	01-21209	D		ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21209	D01		DC ERROR DETECTOR	33	V	01	65	MOI	MC			OSE
A	01-21210	D		COMMAND ASY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21210	D01		BIT ERROR DETECTOR	33	V	01	65	MOI	MC			OSE
A	01-21211	D		BAY 1A6 ASY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21211	D01		RAD REGISTER	33	V	01	65	MOI	MC			OSE
A	01-21212	D		1A6A10 ASY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21212	D01		RAD DRIVER	33	V	01	65	MOI	MC			OSE
A	01-21213	D		PROGRAMMER CARD & W LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21213	D01		BIT TIMER COUNTER	33	V	01	65	MOI	MC			OSE
A	01-21214	D		PROGRAMMER CARD & W LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21214	D01		CARD ASSY TIMING GENERAT	33	V	01	65	MOI	MC			OSE
A	01-21215	D		PROGRAMMER CARD & W LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21215	D01		CARD ASSY ADDRESS	33	V	01	65	MOI	MC			OSE
A	01-21216	D		PROGRAMMER ASY & W LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21216	D01		CARD ASY ADDRESS	33	V	01	65	MOI	MC			OSE
A	01-21217	D		PCB ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21217	D01		CARD ASSY DIP ISOLATION	33	V	01	65	MOI	MC			OSE
A	01-21218	D		PCB ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21218	D01		CARD ASSY DIP ISOLATION	33	V	01	65	MOI	MC			OSE
A	01-21219	D		PROGRAMMER ASY & W LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21219	D01		CARD ASSY RELAY DRIVER	33	V	01	65	MOI	MC			OSE
A	01-21220	D01		TRANSFORMER SUBASSY	33	V	01	65	MOI	MC			OSE
A	BM 01-21220	D01		TRANSFORMER SUBASSY	33	V	01	65	MOI	MC			OSE
A	01-21225	D01		BENCH TEST FIXTURE	33	V	01	65	MOI	MC			OSE
A	BM 01-21225	D01		BENCH TEST FIX	33	V	01	65	MOI	MC			OSE
	01-21228	D		SELECTOBD MODIFICATION	33	O			MOI	MC			OSE
A	01-21230	D		1A6A11 ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21230	D01		PRINTER BUFFER	33	V	01	65	MOI	MC			OSE
A	01-21231	D		1A7A5 ASY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21231	D01		CARD ASSY PRINTER BUFFER	33	V	01	65	MOI	MC			OSE

JPL 1806 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 98 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DEPT. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
A	01-21232	D01		TOP ASSEMBLY	33	V	01	65	MOI	MC			OSE
A	BM 01-21232	D01		OSE TOP ASSEMBLY	33	V	01	65	MOI	MC			OSE
	01-21234	D01		INVERTER 3A5A7	33	O			MOI	MC			OSE
	01-21293	D01		GSE TEST CONSOLE ASSY	33	O			MOI	MC			OSE
A	01-21294	D		PCB ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
	01-21296	D01		TOP ASSY AUX CONSOLE 3A	33	O			MOI	MC			OSE
	01-21298	D		BLOWER 1A10	33	O			MOI	MC			OSE
	01-21298	D		BLOWER 2A11	33	O			MOI	MC			OSE
	01-21298	D01		BLOWER 3A11	33	O			MOI	MC			OSE
A	01-21303			PCB ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
A	BM 01-21303	D01		CARD ASSY RWV SELECTION	33	V	01	65	MOI	MC			OSE
A	01-21305	D		PCB ASSY & WIRE LIST	33	V	01	65	MOI	MC			OSE
J	01-21319	D	B	PANEL MODE INDICATOR	33	L	10	64	JPL	MC	01-20148E01		OSE
D	01-21900	D		PNP LAMP/RELAY DR MODULE	33	V	01	65	MOI	MC			OSE
A	BM 01-21900	D01		PNP LAMP/RELAY DRIVER	33	V	01	65	MOI	MC			OSE
D	01-21912	D		1P/IS TERMINATION 1 MOD	33	V	01	65	MOI	MC			OSE
	01-21943	D		INTERFACE BUFFER	33	O			MOI	MC			OSE
	01-21970	D		OSCILLOSCOPE RM 35A MOD	33	O			MOI	MC			OSE
A	01-22000	D02		PHASE MODULATOR 1A5A8	33	V	01	65	MOI	MC			OSE
A	BM 01-22000	D02		PHASE MODULATOR	33	V	01	65	MOI	MC			OSE
D	01-23148	C01	B	CABINET ASSY	33	V	12	63	MOI	MC			OSE
D	01-23148	C07	B	CONNECTOR 3A13	33	V	12	63	MOI	MC			OSE
D	01-23148	C10	B	STORAGE DRAWER 3A10	33	V	12	63	MOI	MC			OSE
D	01-23148	C15	B	CONNECTOR PANEL 3A12	33	V	12	63	MOI	MC			OSE
	01-23149	C01		CABINET ASSY 1A & 2A	33	O			MOI	MC			OSE
	01-23149	C08		CONNECTOR PANEL 2A1J	33	O			MOI	MC			OSE
	01-23149	C08		CONNECTOR PANEL 1A16	33	O			MOI	MC			OSE
	01-23149	C10		WRITING TABLE 1A8	33	O			MOI	MC			OSE
	01-23149	C10		WRITING TABLE 2A6	33	O			MOI	MC			OSE
	01-23149	C11		STORAGE DRAWER 2A10	33	O			MOI	MC			OSE
C	01-25275	B	C	LOOP & COMMAND PHASE DET	33	V	12	63	MOI	MC	01-25370		OSE
C	01-25291	B	C	LOW POWER DUAL GATE	33	V	12	63	MOI	MC	01-25367		OSE
C	01-25297	B	C	DRIVER & INVERT GATE ASY	33	V	12	63	MOI	MC	01-25370		OSE
C	01-25318	B	C	LOW PWR 9 INPUT & INVERT	33	V	12	63	MOI	MC	01-25367		OSE
C	01-25361	B	C	IP SWITCH MODULE ASSY	33	V	12	63	MOI	MC	01-25373		OSE
C	01-25362	B	D	LIMITER-MODULE ASSY	33	V	12	63	MOI	MC	01-25371		OSE
F	01-25367	B	C	DECODER ASSY OF 3A4A2	33	V	12	63	MOI	MC	01-25383		OSE
F	01-25370	B	C	MATCHED FILTER	33	V	12	63	MOI	MC	01-25380		OSE
F	01-25371	B	D	CHOPPER DEMOD	33	V	12	63	MOI	MC	01-25380		OSE
F	01-25372	B	D	PN GENERATOR	33	V	12	63	MOI	MC	01-25381		OSE

JPL 1806 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 99 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
F	01-25373	B	D	TELEMETRY ASSY	33	V	12	63	MOI	MC	01-25381		OSE
C	01-25374	B	C	S/R/T FLIP-FLOP ASSY	33	V	12	63	MOI	MC	01-25367		OSE
C	01-25380	B	B	DETECTOR B SUBCHASSIS	33	V	12	63	MOI	MC	01-22781		OSE
C	01-25381	B	B	DETECTOR A SUBCHASSIS	33	V	12	63	MOI	MC	01-22781		OSE
C	01-25382	B	B	POWER SUPPLY SUBCHASSIS	33	V	12	63	MOI	MC	01-22814		OSE
C	01-25383	B	B	DECODER SUBCHASSIS ASSY	33	V	12	63	MOI	MC	01-22789		OSE
	01-25630	A		LOWBAND LINE DRIVER	33	O			MOI	MC			OSE
D	01-26340	B		CLOCK/RESET/LINE DRIVER	33	V	12	64	MOI	MC	01-213180		OSE
D	01-26383	B		GATED LAMP RELAY	33	L	10	64	JPL	MC	01-20148		OSE
D	01-26417	B	A	LEVEL DETECTOR	33	L	10	64	JPL	MC	01-20148		OSE
D	01-26421	B	A	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC			OSE
D	01-26425	B	A	QUAD EMITTER FOLLOWER	33	V	01	65	MOI	MC			OSE
D	01-26429	B	B	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC	01-20148		OSE
B	WS 01-26429	B	B	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC	01-26429		OSE
B	LM 01-26429	B	B	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC	01-26429		OSE
D	01-26946	B	A	PANEL ASSY PRINT WIR BD	33	V	12	63	MOI	MC			OSE
A	BM 01-26946	B01		PANEL 4 ASSY PWB	33	V	01	65	MOI	MC			OSE
D	01-26948	B	A	PANEL ASSY DOUBLE	33	V	12	63	MOI	MC			OSE
D	01-27770	A		LOW PWR JKT FLIP FLOP	33	V	01	65	MOI	MC			OSE
A	BM 01-27770	A01		LOW PWR JKT FLIP FLOP	33	V	01	65	MOI	MC			OSE
A	BM 01-27773	A01		JKT FLIP FLOP HP MOD	33	V	01	65	MOI	MC			OSE
D	01-27774	A		2 PARALLELED 4 INPUT	33	V	01	65	MOI	MC			OSE
A	BM 01-27774	A01		2 PARALLED 4 INPUT NAND	33	V	01	65	MOI	MC			OSE
D	01-27777	A		TWO 3 INPUT NAND GATES	33	V	01	65	MOI	MC			OSE
A	BM 01-27777	A01		TWO 3 INPUT NAND GATES	33	V	01	65	MOI	MC			OSE
D	01-28612	A		EPSCO TO PRINTER BUFFER	33	V	01	65	MOI	MC			OSE
A	BM 01-28612	A01		EPSCO TO PRINTER BUFFER	33	V	01	65	MOI	MC			OSE
D	01-28616	A		8 INPUT NAND GATE MODULE	33	V	01	65	MOI	MC			OSE
A	BM 01-28616	A01		8 INPUT NAND GATE MODULE	33	V	01	65	MOI	MC			OSE
D	01-28624	A		IS SWITCH MODULE	33	V	01	65	MOI	MC			OSE
A	BM 01-28624	A01		IS SWITCH MODULE	33	V	01	65	MOI	MC			OSE
D	01-28626	A		IP SWITCH MODULE	33	V	01	65	MOI	MC			OSE
A	BM 01-28626	A01		IP SWITCH MODULE	33	V	01	65	MOI	MC			OSE
D	01-28630	A		LOW BAND LINE DRIVER MOD	33	V	01	65	MOI	MC			OSE
A	BM 01-28630	A01		LOW BAND LINE DRIVER	33	V	01	65	MOI	MC			OSE
C	01-29140	C	A	CONNECTOR & CABLE ASSY	33	V	01	65	MOI	MC			OSE
D	06-15021		B	RESISTOR FIXED COMP	33	V	07	64	MOI	MC			OSE
D	06-15022			RESISTOR FIXED COMP	33	V	01	64	MOI	MC			OSE
A	06-15023	A		RESISTOR FIXED COMP	33	V	01	65	MOI	MC			OSE
	06-15024			RESISTOR FIXED COMP 2W	33	O			MOI	MC			OSE

JPL 1050 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 100 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
A	06-15132	A		RESISTOR FIXED FILM	33	V	01	65	MOI	MC			OSE
A	06-20009		A	RESISTOR FIXED COMP	33	V	07	64	MOI	MC			OSE
D	07-14810	A	K	FRAME-CARD	33	V	12	64	MOI	MC	01-21316D01		OSE
D	07-14810	A	K	FRAME-CARD	33	V	12	64	MOI	MC	01-21317D01		OSE
D	07-14810	A	K	FRAME-CARD	33	V	12	64	MOI	MC	01-21318D01		OSE
J	07-14812	A	K	GUIDE BAY	33	V	12	64	MOI	MC	01-20148E01		OSE
C	07-20277	E	A	BRACKET COMPONENT	33	L	10	64	JPL	MC	01-20245E01		OSE
C	07-20278	E	A	BRACKET COMPONENT	33	L	10	64	JPL	MC	01-20245E01		OSE
D	07-20294	E	A	BRACKET-COUNTER SW PANEL	33	L	10	64	JPL	MC	01-20153E01		OSE
D	07-20296	E	A	BRACKET CONN MOUNTING	33	L	10	64	JPL	MC	01-20168E01		OSE
D	07-20308	E	A	BRACKET CONNECTOR	33	L	10	64	JPL	MC	01-20166E01		OSE
J	07-20311	E	B	BRACKET COMPONENT	33	L	10	64	JPL	MC	01-20150E01		OSE
D	07-20314	E	A	BRACKET S/C RUNNING	33	L	10	64	JPL	MC	01-20160E01		OSE
D	07-20322	E	D	BRACKET COMPONENT	33	L	10	64	JPL	MC	01-20121E01		OSE
D	07-20332	E	A	BRACKET PWR XMFR	33	L	10	64	JPL	MC	01-20103E01		OSE
D	07-20332	E	A	BRACKET PWR XMFR	33	L	10	64	JPL	MC	01-20101E01		OSE
C	07-20344	E	A	BRACKET MOUNTING	33	L	10	64	JPL	MC	01-20150E		OSE
C	07-20349	E	B	SUPPORT PWR DIVIDER	33	L	10	64	JPL	MC	01-20233E01		OSE
D	07-20355	E	A	BRACKET- 4 TRACE OSCIL	33	L	10	64	JPL	MC	01-20122E01		OSE
D	07-20365	E	A	SUPPORT CHASSIS	33	L	10	64	JPL	MC	01-20142E01		OSE
E	07-21087	D	C	FRAME GRAPHIC RECORDER	33	V	12	63	MOI	MC	01-21134		OSE
B	07-21087	DLM		FRAME GRAPHIC RECORDER	33	V	12	63	MOI	MC	07-		OSE
C	07-21088	D	A	BRACKET RELAY	33	V	12	63	MOI	MC	01-21148		OSE
D	07-21091	D	A	SUPPORT DRAWER	33	V	12	63	MOI	MC			OSE
B	07-21092	D	A	BRACKET SWITCH	33	V	12	63	MOI	MC			OSE
D	07-21095	D	B	SPT FRONT PANEL PWR CONT	33	V	12	63	MOI	MC	01-21142		OSE
C	07-21098	D	A	SUPPORT POWER MODULE	33	V	12	63	MOI	MC			OSE
C	07-21112	D		SUPPORT MICROSLIDES	33	V	12	63	MOI	MC			OSE
C	07-21117	D	B	SPT POWER MODULE BRACKET	33	V	12	63	MOI	MC			OSE
D	07-21119	D	C	SUPPORT PANDUIT	33	V	12	63	MOI	MC			OSE
D	07-21120	D	B	BRACKET POWER MODULE	33	V	12	63	MOI	MC			OSE
C	07-21121	D	B	SUPPORT DC VOLTMETER	33	V	12	63	MOI	MC	01-21128		OSE
D	07-21122	D	D	BRACKET RELAY	33	V	12	63	MOI	MC			OSE
F	07-21153	D	B	PANDUIT LONG UNIT 1	33	V	12	63	MOI	MC			OSE
D	07-21154	D	B	PANDUIT END	33	V	12	63	MOI	MC			OSE
D	07-21155	D	B	PANDUIT CROSS	33	V	12	63	MOI	MC			OSE
D	07-21156	D	B	SPT RANDOM NOISE GENERAT	33	V	12	63	MOI	MC	01-21125		OSE
C	07-21181	D		PANDUIT DATA LOGGER RACK	33	IO			MOI	MC			OSE
C	07-21201	D		SLIDE SUPPORT	33	V	01	65	MOI	MC			OSE
C	07-21203	D	A	SPT DIGITAL VOLTMTR SLID	33	V	12	63	MOI	MC	01-21145		OSE

JPL 1050 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 101 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	BASIC NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY REQ.	REFERENCE NUMBER
D	07-21204	D		SPT DIGITAL VOLTMETER	33	V	12	63	MOI	MC	01-21145		OSE
D	07-21227	D	B	SPT FUNCTION GENERATOR	33	V	12	63	MOI	MC	01-21126		OSE
D	07-21243	D	A	BRKT MTG WRITING TABLE	33	V	12	63	MOI	MC			OSE
D	07-21244	D		GUARD HINGE SIDE	33	V	12	63	MOI	MC			OSE
D	07-21245	D		GUARD HINGE SIDE	33	V	12	63	MOI	MC			OSE
D	07-21246	D		GUARD HINGE SIDE	33	V	12	63	MOI	MC			OSE
D	07-21247	D	A	GUARD LATCH SIDE	33	V	12	63	MOI	MC			OSE
D	07-21248	D	A	GUARD LATCH SIDE	33	V	12	63	MOI	MC			OSE
D	07-21249	D	A	GUARD LATCH SIDE	33	V	12	63	MOI	MC			OSE
B	07-21273	D		CHANNEL SLIDE SUPPORT	33	IO			MOI	MC			OSE
D	07-21283	D	D	SUPPORT PANDUIT UNIT 1	33	V	12	63	MOI	MC			OSE
F	07-21287	D	B	PANDUIT LONG UNIT 2	33	V	12	63	MOI	MC			OSE
C	07-21288	D	B	PANDUIT EXTENSION	33	V	12	63	MOI	MC			OSE
D	07-21289	D	B	PANDUIT SIDE UNIT 2	33	V	12	63	MOI	MC			OSE
D	07-21299	D	C	CHANNEL	33	L	10	64	JPL	MC	01-20148E01		OSE
C	07-21309	D	A	BRACKET MTG SLIDE	33	L	10	64	JPL	MC	01-20148		OSE
D	07-21310	D	A	BRACKET MTG SLIDE	33	L	10	64	JPL	MC	01-20148E01		OSE
J	07-21322	D	B	FRAME BAY UNIT RIGHT	33	L	10	64	JPL	MC	01-20148E01		SE
J	07-21323	D	B	FRAME BAY UNIT LEFT	33	L	10	64	JPL	MC	01-20148E01		OSE
D	07-21969	D	B	BRACKET ANGLE	33	V	01	65	MOI	MC			OSE
D	07-21972	D	B	CHANNEL CABLE	33	V	12	63	MOI	MC			OSE
F	07-23166	C	B	SUPPORT CHASSIS SLIDES	33	V	12	63	MOI	MC			OSE
D	07-23395	C	C	SUPPORT CONNECTOR	33	V	12	63	MOI	MC			OSE
D	07-23398	C	B	SPT CROSS BAR UPPER	33	V	12	63	MOI	MC			OSE
D	07-23399	C	B	BRACKET-PLUG BOARD	33	V	12	63	MOI	MC			OSE
D	07-23400	C	B	SPT CROSS BAR LOWER	33	V	12	63	MOI	MC			OSE
F	07-23403	C	B	SUPPORT PLUG BOARD	33	V	12	63	MOI	MC			OSE
	07-23405	C		GUARD HINGE SIDE	33	O			MOI	MC			OSE
	07-23406	C		GUARD LATCH SIDE	33	O			MOI	MC			OSE
	07-24436	B	A	BRACKET COUPLER	33	V	10	63	MOI	MC			OSE
B	07-24438	B	B	BRACKET COAXIAL	33	L	10	64	JPL	MC			OSE
C	07-24444	B	C	BRACKET COUPLER	33	L	10	64	JPL	MC	01-20249E01		OSE
B	07-24541	B	B	SUPPORT CONTACT	33	L	10	64	JPL	MC	01-20237E01		OSE
C	07-24590	B	B	BRACKET CONNECTOR	33	L	10	64	JPL	MC	01-20233E01		OSE
C	07-24591	B	C	BRACKET MOUNTING	33	L	10	64	JPL	MC	01-20233E01		OSE
C	07-24663	B	D	PLATE MOUNTING	33	L	10	64	JPL	MC	01-20249E01		OSE
D	07-24665	B	A	SUPPORT STEP	33	L	10	64	JPL	MC	01-20249E01		OSE
D	07-24666	B	A	SUPPORT STEP	33	L	10	64	JPL	MC	01-20249E01		OSE
D	07-24682	B	D	BRACKET MOUNTING	33	L	10	64	JPL	MC	01-20253E01		OSE
D	07-26346	C	A	BRACKET CAVITY MOUNTING	33	V	10	63	MOI				OSE

JPL 1886 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 102 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	BASIC NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY REQ.	REFERENCE NUMBER
C	07-26353	C	B	BRACKET-MOUNTING	33	L	10	64	JPL	MC	01-20220E01		OSE
B	07-26417	C	A	SUPPORT POWER DIVIDER	33	V	10	63	MOI	MC			OSE
D	07-26425	C	A	SPT CHASS RANGING SUBSYS	33	V	10	63	MOI	MC			OSE
D	07-26923	B	D	GUIDE BAY	33	V	12	63	MOI	MC			OSE
D	07-26929	B	D	FRAME-CARD	33	V	12	63	MOI	MC			OSE
D	07-26965	B	A	CHANNEL	33	V	01	65	MOI	MC			OSE
F	07-26966	B	E	FRAME BAY UNIT LEFT SIDE	33	V	12	63	MOI	MC			OSE
F	07-26967	B	E	FRAME BAY UNIT RT SIDE	33	V	12	63	MOI	MC			OSE
D	08-15077		B	CAPACITOR FIXED PAPER	33	V	01	64	MOI	MC			OSE
A	11-29503	A	B	INSULATING COMPOUND	33	V	01	65	MOI	MC			OSE
A	11-29571	A		INSULATING COMPOUND	33	V	06	64	MOI	MC			OSE
J	12-20105	E	A	RACK EQUIPMENT	33	L	10	64	JPL	MC	01-20112E01		OSE
J	12-20105	E	A	RACK EQUIPMENT	33	L	10	64	JPL	MC	01-20111E01		OSE
A	12-20105	E	B	RACK EQUIP 2-BAY	33	L	10	64	JPL	MC			OSE
B	14-24511	B	B	INSULATOR CONNECTOR	33	L	10	64	JPL	MC	01-20237E01		OSE
C	14-24554	B	B	INSULATOR CONTACT	33	L	10	64	JPL	MC	01-20237E01		OSE
C	14-26360	C	A	INSULATOR BUSHING CAVITY	33	V	10	63	MOI	MC			OSE
C	14-26424	C	A	INSULATOR PLATE	33	L	10	64	JPL	MC	01-20220E01		OSE
C	14-26435	C	B	INSULATOR MIXER	33	L	10	64	JPL	MC	01-20247E01		OSE
	15-14110			RESISTOR VARIABLE COMP	33	O			MOI	MC			OSE
C	15-20346	E	B	COVER TERMINAL BD PWR	33	L	10	64	JPL	MC	01-20154E01		OSE
C	15-20346	E	B	COVER TERMINAL BD PWR	33	L	10	64	JPL	MC	01-20143E01		OSE
C	15-20346	E	B	COVER TERMINAL BD PWR	33	L	10	64	JPL	MC	01-20141E01		OSE
C	15-20346	E	B	COVER TERMINAL BD PWR	33	L	10	64	JPL	MC	01-20141E		OSE
C	15-20347	E	A	COVER SHIPPING 1A12	33	L	10	64	JPL	MC	01-20247E01		OSE
C	15-20347	E	A	COVER SHIPPING 1A12	33	L	10	64	JPL	MC	01-20131E01		OSE
C	15-20374	E	A	HOUSING CAVITY	33	L	10	64	JPL	MC	01-20252E01		OSE
C	15-20374	E	A	HOUSING CAVITY	33	L	10	64	JPL	MC	01-20239E01		OSE
C	15-20374	E	A	HOUSING CAVITY	33	L	10	64	JPL	MC	01-20247E01		OSE
C	15-20393	E	A	COVER SIDE-29.35	33	L	10	64	JPL	MC	01-20229E01		OSE
C	15-20393	E	A	COVER SIDE-29.35	33	L	10	64	JPL	MC	01-20221E01		OSE
D	15-21086	D	B	COVER DUST	33	V	12	63	MOI	MC	01-21146		OSE
C	15-21114	D	B	COVER CONNECTOR	33	V	01	65	MOI	MC			OSE
D	15-21124	D	C	COVER POWER MODULE	33	V	12	63	MOI	MC			OSE
C	15-22144	B		COVER FILTER	33	V	12	64	MOI	MC	01-20220E01		OSE
F	15-22494	B	C	HOUSING SUBCHASSIS	33	V	12	63	MOI	MC	01-25380		OSE
F	15-22646	B	B	HOUSING SUBCHASSIS VCO	33	V	12	63	MOI	MC	01-25381		OSE
C	15-24433	B	B	COVER-CRYSTAL	33	L	10	64	JPL	MC	01-20234E01		OSE
C	15-24451	B	B	COVER-BATTERY	33	L	10	64	JPL	MC	01-20237E01		OSE
B	15-24455	B	D	COVER MULTI	33	L	10	64	JPL	MC	01-20236E01		OSE

JPL 1886 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 103 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
B	15-24457	B	C	COVER ISOLATION	33	L	10	64	JPL	MC	01-20243E		OSE
B	15-24457	B	C	COVER ISOLATION	33	L	10	64	JPL	MC	01-20241E01		OSE
C	15-24473	B	B	COVER PWR FILTER	33	L	10	64	JPL	MC	01-20242E01		OSE
C	15-24531	B	A	COVER ELECTRICAL	33	L	10	64	JPL	MC	01-20233E01		OSE
C	15-24531	B	A	COVER ELECTRICAL	33	L	10	64	JPL	MC	01-20220E01		OSE
C	15-24680	B	A	COVER CHASSIS	33	L	10	64	JPL	MC	01-20228E01		OSE
D	15-24684	B	A	HOUSING MIXER	33	V	10	63	MOI				OSE
D	15-24708	B	A	COVER ELECT EQUIP LARGE	33	V	10	63	MOI	MC			OSE
C	15-24714	B	B	COVER SIDE SUBSYSTEM S	33	L	10	64	JPL	MC	01-20221E01		OSE
C	15-24714	B	B	COVER SIDE SUBSYSTEM S	33	L	10	64	JPL	MC	01-20229E01		OSE
C	15-26345	C	A	COVER HOUSING MIXER	33	V	10	63	MOI	MC			OSE
D	15-26355	C	A	COVER VCO SELECTOR	33	V	10	63	MOI	MC			OSE
C	15-26399	C	A	COVER UPPER LOOP FILTER	33	L	10	64	JPL	MC	01-20225E01		OSE
C	15-26400	C	A	COVER LOWER LOOP	33	L	10	64	JPL	MC	01-20225E01		OSE
D	15-29429	C	A	COVER ELECTRICAL	33	L	10	64	JPL	MC			OSE
C	16-21089	D	A	PANEL MODIFIED	33	V	01	65	MOI	MC			OSE
A	18-14110	A		RESISTOR VARIABLE COMP	33	V	01	65	MOI	MC			OSE
A	21-29568	A		CAPACITORS FIXED MICA	33	V	01	65	MOI	MC			OSE
C	22-21233	D	A	PIN LOCATING POWER CONT	33	V	12	63	MOI	MC	01-21142		OSE
C	22-23153	C	B	PIN CONTACT	33	V	07	64	MOI	MC			OSE
C	22-23510	C	A	PIN CONTACT LARGE	33	V	01	65	MOI	MC			OSE
A	23-14034		H	CAP FIXED ELECTROLYTIC	33	V	01	65	MOI	MC			OSE
C	24-20273	E	A	TRANSFORMER RF T1	33	L	10	64	JPL	MC	01-20238E01		OSE
C	24-20273	E	A	TRANSFORMER RF T1	33	L	10	64	JPL	MC	01-20238E02		OSE
C	24-20274	E	A	TRANSFORMER FR T2	33	L	10	64	JPL	MC	01-20238E01		OSE
C	24-20274	E	A	TRANSFORMER FR T2	33	L	10	64	JPL	MC	01-20238E01		OSE
C	24-20275	E	A	TRANSFORMER RF T3	33	L	10	64	JPL	MC	01-20238E01		OSE
C	24-20366	E	A	TRANSFORMER 2A3A9 13 16	33	L	10	64	JPL	MC			OSE
C	24-20372	E	A	TRANSFORMER 2A3A5	33	L	10	64	JPL	MC	01-20222E01		OSE
C	24-20395	E	A	COIL RADIO FREQUENCY	33	L	10	64	JPL	MC	01-20252E01		OSE
C	24-20395	E	A	COIL RADIO FREQUENCY	33	L	10	64	JPL	MC	01-20239E01		OSE
C	24-24548	B	C	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20235E01		OSE
C	24-24555	B	B	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20235E01		OSE
C	24-24556	B	B	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20235E01		OSE
C	24-24557	B	B	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20235E01		OSE
C	24-24562	B	A	XFMR RADIO FREQ 2A1A10T1	33	V	10	63	MOI	MC			OSE
C	24-24563	B	A	XFMR RADIO FREQ 2A1A10T2	33	V	10	63	MOI	MC			OSE
C	24-24564	B	A	XFMR RADIO FREQ 2A1A10T3	33	V	10	63	MOI	MC			OSE
C	24-24566	B	A	COIL RADIO FREQ 2A1A10L2	33	V	10	63	MOI	MC			OSE
C	24-24567	B	A	COIL RADIO FREQ 2A1A10L3	33	V	10	63	MOI	MC			OSE

JPL 1866 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 104 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	24-24568	B	A	COIL RADIO FREQ 1A1A3T2	33	V	10	63	MOI	MC			OSE
C	24-24569	B	A	COIL RADIO FREQ 1A1A3L3	33	V	10	63	MOI	MC			OSE
C	24-24570	B01	A	XFMR RADIO FREQ 2A1A6T1	33	V	10	63	MOI	MC			OSE
C	24-24571	B	B	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20250E03		OSE
C	24-24571	B	B	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20250E02		OSE
C	24-24571	B	B	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20250E01		OSE
C	24-24576	B	A	XFMR RADIO FREQ 2A1A8T1	33	V	10	63	MOI	MC			OSE
C	24-24577	B	A	XFMR RADIO FREQ 2A1A8T2	33	V	10	63	MOI	MC			OSE
C	24-24578	B	A	XFMR RADIO FREQ 2A1A8T3	33	V	10	63	MOI	MC			OSE
C	24-24579	B	A	XFMR RADIO FREQ 2A1A8T4	33	V	10	63	MOI	MC			OSE
C	24-24585	B	A	COIL RADIO FREQ	33	L	10	64	JPL	MC	01-20242E01		OSE
C	24-24601	B	A	XFMR RADIO FREQ 2A1A17T1	33	V	10	63	MOI	MC			OSE
C	24-24603	B	B	COIL RADIO FREQUENCY	33	L	10	64	JPL	MC	01-20252E01		OSE
C	24-24603	B	B	COIL RADIO FREQUENCY	33	L	10	64	JPL	MC	01-20239E01		OSE
C	24-24604	B	A	COIL RADIO FREQ 1A1A3L9	33	V	10	63	MOI	MC			OSE
C	24-24605	B	B	COIL RADIO FREQUENCY	33	L	10	64	JPL	MC	01-20252E01		OSE
C	24-24605	B	B	COIL RADIO FREQUENCY	33	L	10	64	JPL	MC	01-20239E01		OSE
C	24-24690	B	B	COIL RADIO FREQUENCY	33	L	10	64	JPL	MC	01-20252E01		OSE
C	24-24690	B	B	COIL RADIO FREQUENCY	33	L	10	64	JPL	MC	01-20239E01		OSE
C	24-24691	B	B	COIL RADIO FREQ	33	L	10	64	JPL	MC	01-20252E01		OSE
C	24-24691	B	B	COIL RADIO FREQ	33	L	10	64	JPL	MC	01-20239E01		OSE
C	24-24692	B	A	XFMR RADIO FREQ 2A4A11T1	33	V	10	63	MOI	MC			OSE
C	24-24693	B	A	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20221E01		OSE
C	24-24694	B	A	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20221E01		OSE
C	24-24695	B	A	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20257E01		OSE
C	24-24696	B	A	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20257E01		OSE
C	24-24697	B	A	XFMR RADIO FREQUENCY	33	V	10	63	MOI	MC			OSE
C	24-24698	B	A	XFMR RADIO FREQUENCY	33	V	10	63	MOI	MC			OSE
C	24-24699	B	B	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20252E01		OSE
C	24-24699	B	B	TRANSFORMER RADIO FREQ	33	L	10	64	JPL	MC	01-20239E01		OSE
C	24-24700	B	A	XFMR RADIO FREQ 2A1A8T1	33	V	10	63	MOI	MC			OSE
C	24-24701	B	A	XFMR RADIO FREQ 2A1A8T2	33	V	10	63	MOI	MC			OSE
C	24-24702	B	A	XFMR RADIO FREQ 2A1A8T4	33	V	10	63	MOI	MC			OSE
C	24-24703	B	A	XFMR RADIO FREQ 2A1A8T3	33	V	10	63	MOI	MC			OSE
C	24-24704	B	B	TRANSFORMER RADIO	33	L	10	64	JPL	MC	01-20243E01		OSE
C	24-24706	B	A	COIL RADIO FREQ 2A1A10L3	33	V	10	63	MOI	MC			OSE
A	25-22490	B	C	TRANSFORMER AF CHOPPER	33	V	01	65	MOI	MC			OSE
A	25-23141	C		TRANSFORMER PWR STEP DWN	33	V	01	65	MOI	MC			OSE
C	26-22142	B		SHIELD-COVER ELECTRICAL	33	V	12	64	MOI	MC	01-20245E01		OSE
C	26-22142	B		SHIELD-COVER ELECTRICAL	33	V	12	64	MOI	MC	01-20248E01		OSE

JPL 1866 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 105 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
C	26-23389	C	B	SHIELD CABLE	33	V	12	63	MOI	MC			OSE
J	27-20176	E	A	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	01-20179E01		OSE
J	27-20178	E	D	CHASSIS ELECTRICAL	33	L	10	64	JPL	MC	01-20233E01		OSE
B	LM 27-20178	E	A		33	L	10	64	JPL	MC	27-20178		OSE
J	27-20180	E	A	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20220E01		OSE
J	27-20183	E	A	CHASSIS FREQUENCY DOUBLE	33	L	10	64	JPL	MC	01-20230E01		OSE
J	27-20190	E	B	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20229E01		OSE
B	LM 27-20190	B	A	CHASSIS ELEC EQUIP	33	L	10	64	JPL	MC	27-20190		OSE
C	27-20281	E	C	CHASSIS ELECTRICAL	33	V	12	64	MOI	MC	01-20240E01		OSE
J	27-20291	E	B	CHASSIS ELECT VCO 498 KC	33	L	10	64	JPL	MC	01-20226E01		OSE
J	27-20191	E	C	CHASSIS ELECT EQUIPMENT	33	L	10	64	JPL	MC	01-20221E01		OSE
J	27-20191	E	C	CHASSIS ELECTRICAL 29.35	33	L	10	64	JPL	MC			OSE
B	LM 27-20191	B	C	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	27-20191		OSE
D	27-20194	E	A	CHASSIS ELECTRICAL	33	L	10	64	JPL	MC	01-20239E01		OSE
J	27-20197	E	D	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20249E01		OSE
B	LM 27-20197	E	A	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	27-20197		OSE
J	27-20199	E	C	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20245E01		OSE
C	27-20261	E	A	BAR ROLLOVER	33	L	10	64	JPL	MC	01-20220E01		OSE
J	27-20262	E	A	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	01-20236E01		OSE
J	27-20265	E	A	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	01-20236E01		OSE
J	27-20267	E	F	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	01-20238E03		OSE
J	27-20267	E	F	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	01-20238E02		OSE
J	27-20267	E	F	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	01-20238E01		OSE
J	27-20272	E	A	CHASSIS ELECTRICAL	33	L	10	64	JPL	MC	01-20269E01		OSE
J	27-20281	E	C	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20240E01		OSE
J	27-20285	E	B	CHASSIS ELECT EQUIPMENT	33	L	10	64	JPL	MC	01-20237E01		OSE
J	27-20287	E	A	CHASSIS CRYSTAL OSC	33	L	10	64	JPL	MC	01-20231E01		OSE
J	27-20291	E	B	CHASSIS ELECTRICAL VCO	33	L	10	64	JPL	MC	01-20226E01		OSE
J	27-20312	E	A	CHASSIS ELEC EQUIPMENT	33	L	10	64	JPL	MC	01-20254E01		OSE
F	27-21094	D	A	CHASSIS POWER CONTROL	33	V	12	63	MOI	MC	01-21142		OSE
J	27-21157	D		CHASSIS F E DRAWER	33	V	12	63	MOI	MC	01-21147		OSE
F	27-21160	D		CHASSIS TEST FIXTURE	33	V	12	63	MOI	MC			OSE
	27-24422	B	C	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
	27-24432	B	E	CHASS ELECT EQUIP 2A1A3	33	V	10	63	MOI	MC			OSE
	27-24443	B	E	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
	27-24445	B	D	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
	27-24446	B	B	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
D	27-24448	B	F	CHASSIS ELEC EQUIP 88	33	V	01	65	MOI	MC	01-24498B		OSE
D	27-24448	B	F	CHASSIS ELEC EQUIP 88	33	V	01	65	MOI	MC	01-20251E		OSE
	27-24450	B	B	CHASS ELECT EQUIP 2A1A6	33	V	10	63	MOI	MC			OSE

JPL 1200 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 106 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
D	27-24453	B	B	CHASSIS ISOLATION	33	V	01	65	MOI	MC	01-20241E		OSE
D	27-24453	B	B	CHASSIS ISOLATION	33	V	01	65	MOI	MC	01-24523B		OSE
	27-24454	B	E	CHASS ELECT EQUIP 2A1A8	33	V	10	63	MOI	MC			OSE
D	27-24472	B	E	CHASSIS PWR FILTER	33	L	10	64	JPL	MC	01-20242E01		OSE
	27-24537	B	D	CHASS ELECT EQUIP 2A1A5	33	V	10	63	MOI	MC			OSE
F	27-24538	B	C	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
D	27-24581	B	B	CHASSIS NARROW	33	L	10	64	JPL	MC	01-20243E01		OSE
J	27-24616	B	C	CHASSIS RANGE CODE	33	L	10	64	JPL	MC	01-20227E01		OSE
J	27-24627	B	B	CHASSIS 498 KC IF AMPL	33	L	10	64	JPL	MC	01-20223E01		OSE
J	27-24629	B	D	CHASSIS 29.35 MC BALANCE	33	L	10	64	JPL	MC	01-20222E01		OSE
J	27-24631	B	C	CHASSIS CLOCK LOOP&XFER	33	L	10	64	JPL	MC	01-20224E01		OSE
	27-24633	B	A	CHASSIS ELECT EQUIP 1A2	33	V	10	63	MOI	MC			OSE
F	27-24635	B	B	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
J	27-24639	C	B	CHASSIS 29.35 MC PHASE	33	L	10	64	JPL	MC	01-20257E01		OSE
F	27-24641	B	A	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
J	27-24661	B	C	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20252E01		OSE
J	27-24668	B	B	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20228E01		OSE
J	27-24671	B	C	CHASSIS ELECTRICAL	33	L	10	64	JPL	MC	01-20250E01		OSE
J	27-24671	B	C	CHASSIS ELECTRICAL	33	L	10	64	JPL	MC	01-20250E02		OSE
J	27-24671	B	C	CHASSIS ELECTRICAL	33	L	10	64	JPL	MC	01-20250E03		OSE
F	27-24675	B	C	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
J	27-24676	B	B	CHASSIS ELEC EQUIP	33	L	10	64	JPL	MC	01-20225E01		OSE
F	27-24677	B	A	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
F	27-24686	B	A	CHASSIS ELECT EQUIP	33	V	10	63	MOI	MC			OSE
F	27-24709	B	A	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
E	27-24712	B	B	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
E	27-24713	B	C	CHASS ELECT EQUIP 2A4A3	33	V	10	63	MOI	MC			OSE
F	27-26349	C	B	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
E	27-26351	C	D	CHASSIS ELECT EQUIP 2A4	33	V	10	63	MOI	MC			OSE
C	27-26357	C	B	CHASSIS ELECT EQUIP 2A4	33	V	10	63	MOI	MC			OSE
A	LM 27-26358	C	B	CHASSIS ELECT	33	L	10	64	JPL	MC	27-26358		OSE
J	27-26364	C	E	CHASSIS ELECT EQUIP 1A1	33	V	10	63	MOI	MC			OSE
J	27-26437	C	B	CHASSIS ELECT EQUIP	33	L	10	64	JPL	MC	01-20247E01		OSE
E	27-26959	B	F	CHASSIS POWER SUPPLY	33	V	12	63	MOI	MC	01-21115		OSE
C	27-29420	C		BASE CONNECTOR MTG	33	V	10	63	MOI	MC			OSE
	27-29474	C	B	CHASSIS ELECT EQUIPMENT	33	V	10	63	MOI	MC			OSE
	27-26959	B		CHASSIS POWER SUPPLY	33	0			MOI	MC			OSE
D	27-29485	C	E	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20246E03		OSE
D	27-29486	C	E	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20246E02		OSE
D	27-29486	C	E	CHASSIS ELECTRICAL EQUIP	33	L	10	64	JPL	MC	01-20246E01		OSE

JPL 1200 JUN 60

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 107 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
J	30-20175	E	B	CABLE ASSY SET	33	L	10	64	JPL	MC	01-20100E01		OSE
J	30-20299	E	B	CABLE ASSY SET-RACK	33	L	10	64	JPL	MC	01-20111E01		OSE
J	30-20300	E	E	CABLE ASSY SET	33	L	10	64	JPL	MC	01-20112E01		OSE
J	30-20340	E	A	CABLE SET RF MONITOR	33	L	10	64	JPL	MC	01-20340E01		OSE
J	30-20340	E	A	CABLE SET RF MONITOR	33	L	10	64	JPL	MC	01-20151E01		OSE
J	30-20353	E	B	CABLE ASSY PHASE LOCK	33	L	10	64	JPL	MC	30-20338E01		OSE
J	30-20353	E	B	CABLE ASSY PHASE LOCK	33	L	10	64	JPL	MC	01-20237E01		OSE
J	30-20354	E	C	CABLE ASSY RANGING	33	L	10	64	JPL	MC	30-20339E01		OSE
J	30-20371	E	C	CABLE ASSY-TEST XMTR	33	L	10	64	JPL	MC	30-20335E01		OSE
J	30-20371	E	C	CABLE ASSY-TEST XMTR	33	L	10	64	JPL	MC	01-20254E01		OSE
J	30-20371	E	C	CABLE ASSY TEST XMTR	33	L	10	64	JPL	MC	01-20253E01		OSE
C	31-15050	A	B	TERMINAL BOARD BARRIER	33	V	12	64	MOI	MC	01-2012E01		OSE
C	31-20174	E	A	MARKING STRIP TB	33	L	10	64	JPL	MC	01-20157E01		OSE
D	31-20177	E	B	TERMINAL BD AMPL 29.35	33	L	10	64	JPL	MC	01-20179E01		OSE
D	31-20184	E	B	TERMINAL BOARD FREQ	33	L	10	64	JPL	MC	01-20230E01		OSE
C	31-20195	E	A	BD TERMINAL X48 MULT	33	L	10	64	JPL	MC	01-20239E01		OSE
C	31-20263	E	A	TB MULTI XTAL/REF	33	L	10	64	JPL	MC	01-20236E01		OSE
C	31-20268	E	A	TB VCO DUAL RECEIVER	33	L	10	64	JPL	MC	01-20238E03		OSE
C	31-20268	E	A	TB VCO DUAL RECEIVER	33	L	10	64	JPL	MC	01-20238E02		OSE
C	31-20268	E	A	TB VCO DUAL RECEIVER	33	L	10	64	JPL	MC	01-20238E01		OSE
C	31-20282	E	A	TERMINAL BOARD TB-1	33	L	10	64	JPL	MC	01-20224E		OSE
C	31-20282	E	A	TERMINAL BOARD TB-1	33	L	10	64	JPL	MC	01-20227E		OSE
C	31-20283	E	A	TERMINAL BOARD TB 2	33	L	10	64	JPL	MC	01-20224E01		OSE
C	31-20283	E	A	TERMINAL BOARD TB 2	33	L	10	64	JPL	MC	01-20227E01		OSE
C	31-20284	E	A	TERMINAL BD TB 3	33	L	10	64	JPL	MC	01-20224E01		OSE
C	31-20284	E	A	TERMINAL BD TB 3	33	L	10	64	JPL	MC	01-20227E01		OSE
C	31-20288	E	A	TB CRYSTAL OSCILLATOR	33	L	10	64	JPL	MC	01-20231E01		OSE
C	31-20289	E	A	TB CRYSTAL OSCILLATOR	33	L	10	64	JPL	MC	01-20231E01		OSE
D	31-20292	E	B	TERMINAL BOARD VCO 498KC	33	L	10	64	JPL	MC	01-20226E01		OSE
D	31-20293	E	B	TERMINAL BOARD VCO 498 K	33	L	10	64	JPL	MC	01-20226E01		OSE
C	31-20305	E	A	TB CORRELATION	33	L	10	64	JPL	MC	01-20228E01		OSE
C	31-20315	E	A	TB LOOP FILTER	33	L	10	64	JPL	MC	01-20237E01		OSE
C	31-20325	E	A	MARKING STRIP 4AE	33	L	10	64	JPL	MC	01-20160E01		OSE
C	31-20333	E	A	TB S/C RUNNING TIME	33	L	10	64	JPL	MC	01-20160E01		OSE
C	31-20350	E	A	TB ISOLATION AMPL	33	L	10	64	JPL	MC	01-20253E01		OSE
C	31-20356	E	A	BD TERMINAL	33	L	10	64	JPL	MC	01-20241E01		OSE
C	31-21198	D	B	TB PULSE TRANSFORMER	33	V	12	63	MOI	MC			OSE
C	31-24425	B	F	TERMINAL BD LOOP FILTER	33	L	10	64	JPL	MC	01-20237E01		OSE
	31-24430	B	D	TB LOOP FILTER 2	33	V	10	63	MOI	MC			OSE
	31-24456	B	B	TB ISOLATION AMPLIFIER	33	V	10	63	MOI	MC			OSE

JPL 1556 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 108 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	31-24458	B	B	TB1 REFERENCE OSCILLATOR	33	V	10	63	MOI	MC			OSE
C	31-24459	B	D	TERMINAL BOARD #2#- REF	33	L	10	64	JPL	MC	01-20236E01		OSE
C	31-24463	B	A	BD TERMINAL	33	L	10	64	JPL	MC	01-20236E01		OSE
C	31-24478	B	B	TB VCO BIAS	33	V	10	63	MOI	MC			OSE
C	31-24496	B	B	TERMINAL BD 88 MC	33	L	10	64	JPL	MC	01-20251E01		OSE
C	31-24499	B	C	TB AGC FILTER	33	L	10	64	JPL	MC	01-20240E01		OSE
C	31-24514	B	C	TB CRYSTAL FILTER RECEIV	33	L	10	64	JPL	MC	01-20234E01		OSE
C	31-24532	B	D	BD TERMINAL SIGNAL DET	33	L	10	64	JPL	MC			OSE
C	31-24534	B	B	BD TERMINAL REFERENCE	33	L	10	64	JPL	MC	01-20235E01		OSE
	31-24539	B	C	TB 13 MC RECEIVER VCO	33	V	10	63	MOI	MC			OSE
D	31-24628	B	C	TERMINAL BOARD- 498 KC	33	L	10	64	JPL	MC	01-20223E01		OSE
D	31-24630	B	C	TERMINAL BD 29.35 BALANC	33	L	10	64	JPL	MC	01-20222E01		OSE
D	31-24634	B	A	TB FREQUENCY DOUBLER	33	V	10	63	MOI	MC			OSE
D	31-24640	C	B	TERMINAL BD 29.35 MC	33	L	10	64	JPL	MC	01-20257E01		OSE
D	31-24642	B	A	TB 22MC ISOLATION AMPL	33	V	10	63	MOI	MC			OSE
C	31-24658	B	C	TB RANGE CODE CORRELATN	33	V	10	63	MOI	MC			OSE
C	31-24659	B	B	TB RANGE CODE CORRELATN	33	V	10	63	MOI	MC			OSE
C	31-24660	B	C	TB RANGE CODE CORRELATN	33	V	10	63	MOI	MC			OSE
D	31-24662	B	A	BOARD TERMINAL X24	33	L	10	64	JPL	MC	01-20252E01		OSE
D	31-24667	B	B	TB X96 MULTIPLIER RECEIV	33	V	10	63	MOI	MC			OSE
C	31-24670	B	B	TERMINAL BD ELECTRICAL	33	L	10	64	JPL	MC	01-20250E03		OSE
C	31-24670	B	B	TERMINAL BD ELECTRICAL	33	L	10	64	JPL	MC	01-20250E02		OSE
C	31-24670	B	B	TERMINAL BD ELECTRICAL	33	L	10	64	JPL	MC	01-20250E01		OSE
D	31-24678	B	A	TB FREQ SHIFTER TB1	33	V	10	63	MOI	MC			OSE
D	31-24679	B	A	TB FREQ SHIFTER TB2	33	V	10	63	MOI	MC			OSE
C	31-24681	B	A	TB CORRELATION INDICATOR	33	V	10	63	MOI	MC			OSE
C	31-24683	B	A	TB CLCK & XFER LOOP FILT	33	V	10	63	MOI	MC			OSE
D	31-24687	B	B	TB FREQ SHIFTER TB1	33	V	10	63	MOI	MC			OSE
D	31-24688	B	A	TB FREQ SHIFTER TB2	33	V	10	63	MOI	MC			OSE
C	31-24689	B	B	TB FREQ SHIFTER TB3	33	V	10	63	MOI	MC			OSE
D	31-24710	B	A	TB 498 KC VCO TB1	33	V	10	63	MOI	MC			OSE
D	31-24711	B	A	TB 498 KC VCO TB2	33	V	10	63	MOI	MC			OSE
C	31-24715	B	B	TERMINAL BOARD	33	L	10	64	JPL	MC	01-20229E01		OSE
D	31-24716	B	C	TERMINAL BOARD 498 PHASE	33	L	10	64	JPL	MC	01-20229E01		OSE
D	31-24717	B	B	TERMINAL BOARD TB3	33	L	10	64	JPL	MC	01-20229E01		OSE
D	31-24718	B	C	TERMINAL BOARD #1# 29.35	33	L	10	64	JPL	MC	01-20221E01		OSE
C	31-24719	B	D	TB #2# 29.35 MC PHASE	33	L	10	64	JPL	MC	01-20221E01		OSE
D	31-26350	C	B	TB 151 MC OSCILLATOR	33	V	10	63	MOI	MC			OSE
C	31-26354	C	T	B VCO SELECTOR	33	V	10	63	MOI	MC			OSE
C	31-26359	C	B	TERMINAL BOARD	33	L	10	64	JPL	MC	01-20220E01		OSE

JPL 1556 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 109 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CDL	SEQUENCE NUMBER
D	31-26398	C	D	BOARD TERMINAL- VCO	33	L	10	64	JPL	MC	01-20254E01		OSE
C	31-26401	C	A	TB LOOP FILTER	33	L	10	64	JPL	MC			OSE
C	31-29468	C	B	BD TERMINAL ISOLATION	33	L	10	64	JPL	MC			OSE
C	31-29475	C	B	TERMINAL BOARD REF	33	L	10	64	JPL	MC	01-20269E01		OSE
C	31-29476	C	B	TB BALANCED MIXER	33	L	10	64	JPL	MC	01-20269E01		OSE
C	31-29477	C	B	TERMINAL BD RF AMPL	33	L	10	64	JPL	MC	01-20269E01		OSE
C	31-29478	C	B	TB IF AMPLIFIER	33	L	10	64	JPL	MC	01-20269E01		OSE
C	31-29487	C	A	BD TERMINAL 176/181	33	L	10	64	JPL	MC	01-20246E03		OSE
C	31-29487	C	A	BD TERMINAL 176/181	33	L	10	64	JPL	MC	01-20246E02		OSE
C	31-29487	C	A	BD TERMINAL 176/181	33	L	10	64	JPL	MC	01-20246E01		OSE
D	31-29499	C	B	TB 22 MC ISOLATION AMPL	33	L	10	64	JPL	MC	01-20253E01		OSE
D	32-21149	D	B	SHIM PANDUIT #1 UNIT 1	33	V	12	63	MOI	MC			OSE
D	32-21151	D	B	SHIM PANDUIT #3 UNIT 1	33	V	12	63	MOI	MC			OSE
D	32-21152	D	D	SHIM PANDUIT #4 UNIT 1	33	V	12	63	MOI	MC			OSE
D	32-21281	D	B	SHIM PANDUIT #1 UNIT 2	33	V	12	63	MOI	MC			OSE
C	32-21282	D	B	SHIM PANDUIT #2 UNIT 2	33	V	12	63	MOI	MC			OSE
D	32-21286	D	B	SHIM PANDUIT #3 UNIT 2	33	V	12	63	MOI	MC			OSE
C	32-23363	B		SHIELDING GASKET	33	V	12	64	MOI	MC	01-20233E01		OSE
C	32-23363	B		SHIELDING GASKET	33	V	12	64	MOI	MC	01-20245E01		OSE
C	33-14818	A	K	PLATE IDENTIFICATION	33	V	12	64	MOI	MC	01-21316D01		OSE
C	33-14818	A	K	PLATE IDENTIFICATION	33	V	12	64	MOI	MC	01-21317D01		OSE
C	33-14818	A	K	PLATE IDENTIFICATION	33	V	12	64	MOI	MC	01-21318D01		OSE
D	33-20750	D	A	NAMEPLATE TRANSPONDER	33	V	12	63	MOI	MC	33-26977		OSE
D	33-20317	E	A	PLATE IDENTIFICATION	33	L	10	64	JPL	MC	01-20101E01		OSE
D	33-20318	E	C	PLATE IDENTIFICATION	33	L	10	64	JPL	MC	01-20141E01		OSE
D	33-20319	E	B	PLATE IDENTIFICATION	33	L	10	64	JPL	MC	01-20221E01		OSE
C	32-23363	B		SHIELDING GASKET	33	V	12	64	MOI	MC	01-20249E01		OSE
D	33-26977	B	A	PLATE IDENT SINGLE PANEL	33	V	12	63	MOI	MC			OSE
D	33-26978	B	A	PLATE IDENT DOUBLE PANEL	33	V	12	63	MOI	MC			OSE
D	34-26404	C	E	VARIABLE ATTENUATOR DIAL	33	L	10	64	JPL	MC	01-20249E01		OSE
D	37-24448	B	F	CHASSIS ELECTRICAL	33	L	10	64	JPL	MC	01-20251E01		OSE
D	37-24453	B	B	CHASSIS ISOLATION	33	L	10	64	JPL	MC	01-20241E01		OSE
C	39-24431	B	B	CONTACT SPRING	33	L	10	64	JPL	MC	01-20237E01		OSE
B	39-24542	B	B	CONTACT BATTERY	33	L	10	64	JPL	MC	01-20237E01		OSE
A	40-15109	A		SWITCH TOGGLE-BAT HANDLE	33	V	01	65	MOI	MC			OSE
C	40-24602	B	A	SWITCH INDEX	33	V	10	63	MOI	MC			OSE
C	41-24524	B		CONTACT ELECTRICAL	33	V	12	64	MOI	MC	01-20239E01		OSE
C	41-24524	B		CONTACT ELECTRICAL	33	V	12	64	MOI	MC	01-20247E01		OSE
C	41-24524	B		CONTACT ELECTRICAL	33	V	12	64	MOI	MC	01-20252E01		OSE
C	41-24543	B	C	SPRING	33	L	10	64	JPL	MC	01-20237E01		OSE

JPL 1866 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 110 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CDL	SEQUENCE NUMBER
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20269E01		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20250E01		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20246E03		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20246E02		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20246E01		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20238E03		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20238E02		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20238E01		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20236E01		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20231E01		OSE
C	41-29491	C	A	SPRING CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20226E01		OSE
A	42-14076	A		CLAMP LOOP-TEE	33	V	12	64	MOI	MC	01-20121E01		OSE
C	42-20345	E	A	CLAMP COMPONENT-1A2	33	L	10	64	JPL	MC	01-20121E01		OSE
C	42-20375	E	A	HOLDER-CONTACT DIODE	33	L	10	64	JPL	MC	01-20239E01		OSE
B	42-21202	D	B	CLAMP PULSE XFORMER	33	V	12	63	MOI	MC			OSE
C	42-21974	D	A	BAR CLAMP	33	V	12	63	MOI	MC			OSE
C	42-24476	B	A	CLAMP PREAMPLIFIER	33	L	10	64	JPL	MC	01-20233E01		OSE
B	42-26352	C	A	CLIP-COMPONENT	33	L	10	64	JPL	MC	01-20252E01		OSE
B	42-26352	C	A	CLIP-COMPONENT	33	L	10	64	JPL	MC	01-20220E01		OSE
C	42-29455	C	B	HOLDER CRYSTAL UNIT-CAST	33	L	10	64	JPL	MC	42-29489C		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20259E01		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20250E01		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20246E03		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20246E02		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20246E01		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20238E03		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20238E02		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20238E01		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20236E01		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20231E01		OSE
C	42-29489	C		HOLDER CRYSTAL UNIT	33	L	10	64	JPL	MC	01-20226E01		OSE
C	43-14811	A	K	SPACER BAY	33	V	12	64	MOI	MC	01-20148E01		OSE
C	43-14816	A	K	BEARING-EJECTOR	33	V	12	64	MOI	MC	01-21316D01		OSE
C	43-14816	A	K	BEARING-EJECTOR	33	V	12	64	MOI	MC	01-21317D01		OSE
C	43-20279	E	A	SPACER COMPONENT	33	L	10	64	JPL	MC	01-20245E01		OSE
C	43-20302	E	A	SPACER COMPONENT	33	L	10	64	JPL	MC	01-20245E01		OSE
C	43-20316	E	A	SPACER COMPONENT	33	L	10	64	JPL	MC	01-20160E01		OSE
C	43-20351	E	A	SPACER SLIDE	33	L	10	64	JPL	MC	01-20138E01		OSE
C	43-20351	E	A	SPACER SLIDE	33	L	10	64	JPL	MC	01-20124E01		OSE
C	43-20357	E	A	BUSHING SHAFT 2A3A3	33	L	10	64	JPL	MC	01-20221E01		OSE

JPL 1866 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 111 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	43-20357	E	A	BUSHING SHAFT 2A3A3	33	L	10	64	JPL	MC	01-20229E01		OSE
C	43-20394	E	A	SPACER ATTENUATOR	33	L	10	64	JPL	MC	01-20249E01		OSE
C	43-21082	D	A	EXTENSION SHAFT	33	IO			MOI	MC			OSE
C	43-21158	D		SPACER	33	V	12	63	MOI	MC			OSE
B	43-21189	D	A	SPACER VCO CONNECTOR	33	V	12	63	MOI	MC			OSE
C	43-21190	D	B	SPACER DIFFERENTIAL AMPL	33	V	01	65	MOI	MC			OSE
C	43-21235	D	C	SPACER FUNCTION GENERATR	33	V	12	63	MOI	MC	01-21126		OSE
C	43-21236	D	A	SPACER FREQ COUNTER	33	V	12	63	MOI	MC			OSE
C	43-21250	D	A	SPACER THREADED	33	V	12	63	MOI	MC			OSE
C	43-21271	D	A	SPACER WRITING TABLE	33	V	12	63	MOI	MC			OSE
B	43-21275	D		SPACER DIGITAL VOLTMETER	33	IO			MOI	MC			OSE
B	43-21276	D		SPACER PRINTER	33	IO			MOI	MC			OSE
B	43-21279	D		SPACER DATA LOGGER CONT	33	IO			MOI	MC			OSE
C	43-21280	D	A	SPACER CROSS BAR SUPPORT	33	V	12	63	MOI	MC	01-21148		OSE
D	43-21314	D	D	SPACER BAY	33	L	10	64	JPL	MC	01-20148E01		OSE
B	43-24368	B	B	SPACER INSULATOR TO18	33	V	12	64	MOI	MC	01-26421B01		OSE
B	43-24540	B	A	SPACER CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20238E03		OSE
B	43-24540	B	A	SPACER CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20238E02		OSE
B	43-24540	B	A	SPACER CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20238E01		OSE
B	43-24540	B	A	SPACER CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20236E01		OSE
B	43-24540	B	A	SPACER CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20231E01		OSE
B	43-24540	B	A	SPACER CRYSTAL HOLDER	33	L	10	64	JPL	MC	01-20226E01		OSE
B	43-24580	B	A	BUSHING	33	L	10	64	JPL	MC	01-20249E03		OSE
B	43-26421	C	A	SPACER	33	V	10	63	MOI	MC			OSE
C	43-26430	B	B	INSULATOR #1 LOGIC	33	L	10	64	JPL	MC	01-21318		OSE
C	AW 43-26430	B	B	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC	01-21318		OSE
C	AW 43-26431	B	B	SPACER INSULATOR LOGIC	33	L	10	64	JPL	MC	01-21318E		OSE
C	43-26431	B	B	INSULATOR #2 LOGIC	33	L	10	64	JPL	MC	01-21318		OSE
C	43-26922	B	D	SPACER BAY	33	V	12	63	MOI	MC			OSE
D	43-26940	B	C	SPACER ROD BAY	33	V	12	63	MOI	MC			OSE
C	43-26943	B	C	BEARING EJECTOR	33	V	12	63	MOI	MC			OSE
B	43-26969	B	B	BUSHING CONNECT FLOATING	33	V	12	63	MOI	MC			OSE
C	43-28651	A		INSULATOR #1 DUAL 3	33	V	01	65	MOI	MC	01-28650A		OSE
C	43-28652	A		INSULATOR 2 DUAL 3 INPUT	33	V	01	65	MOI	MC			OSE
B	43-29141	C	B	SPACER HINGE	33	V	12	63	MOI	MC			OSE
C	45-14809	A	K	LEVER EJECTOR	33	V	12	64	MOI	MC	01-21316D01		OSE
C	45-14809	A	K	LEVER EJECTOR	33	V	12	64	MOI	MC	01-21317D01		OSE
C	45-14809	A	K	LEVER EJECTOR	33	V	12	64	MOI	MC	01-21318D01		OSE
C	45-21108	D	A	SLIDE YN 25	33	V	12	63	MOI	MC			OSE
C	45-21237	D		SLIDE BRUSH RECORDER	33	IO			MOI	MC			OSE

JPL 1880 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 112 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	45-21973	D	A	SIDE CHASSIS MODIFIED	33	V	12	63	MOI	MC			OSE
C	45-26939	B	C	LEVER-EJECTOR	33	V	12	63	MOI	MC			OSE
B	45-29134	C	B	LINK-HINGE	33	V	12	63	MOI	MC			OSE
	45-26939	B		LEVER EJECTOR	33	O			MOI	MC			OSE
	45-29134	C		LINK HINGE	33	O			MOI	MC			OSE
C	46-14817	A	K	STUD-RETAINING	33	V	12	64	MOI	MC	01-20148E01		OSE
B	46-21159	D	A	STOP P/C BOARD	33	V	12	63	MOI	MC	01-21147		OSE
C	46-21242	D	A	STOP RMS VOLTMETER	33	V	12	63	MOI	MC	01-21127		OSE
C	46-23390	C	D	BLOCK MTG PANEL CONNECTR	33	V	12	63	MOI	MC			OSE
	46-24530	B	A	BLOCK MTG VARACTOR	33	V	10	63	MOI	MC			OSE
B	46-26944	B	C	STUD-RETAINING	33	V	12	63	MOI	MC			OSE
C	46-26964	B	A	BLOCK CONNECTOR MOUNTING	33	V	12	63	MOI	MC			OSE
C	47-20261	E	A	BAR ROLLOVER RANGING REC	33	V	01	65	MOI	MC	01-20220		OSE
	47-24471	B	B	SHAFT VARIABLE ATTENUATR	33	V	10	63	MOI	MC			OSE
C	47-24519	B		CORE ADJUSTABLE TUNING	33	V	12	64	MOI	MC	01-20239E01		OSE
C	47-24519	B		CORE ADJUSTABLE TUNING	33	V	12	64	MOI	MC	01-20247E01		OSE
C	47-24519	B		CORE ADJUSTABLE TUNING	33	V	12	64	MOI	MC	01-20252E01		OSE
	47-24535	B	D	SHAFT ATTENUATOR	33	V	10	63	MOI	MC			OSE
C	47-26340	C	B	SHAF	33	V	10	63	MOI	MC			OSE
C	47-26340	C	B	SHAFT	33	V	10	63	MOI	MC			OSE
C	47-26365	C	A	TUBE EXTENSION	33	V	10	63	MOI	MC			OSE
B	47-26416	C	B	SHAFT ATTENUATOR STEP	33	L	10	64	JPL	MC	01-20249E01		OSE
B	47-26420	C	A	ROD LOCKING CAVITY	33	L	10	64	JPL	MC	01-20252E01		OSE
B	47-26420	C	A	ROD LOCKING CAVITY	33	L	10	64	JPL	MC	01-20247E01		OSE
B	47-26420	C	A	ROD LOCKING CAVITY	33	L	10	64	JPL	MC	01-20239E01		OSE
B	47-26423	C	A	ROD LOCKING CAVITY	33	V	10	63	MOI	MC			OSE
B	47-27535	B	D	SHAFT ATTENUATOR	33	L	10	64	JPL	MC	01-20233E01		OSE
B	47-27535	B	D	SHAFT ATTENUATOR	33	L	10	64	JPL	MC	01-20249E01		OSE
	48-14132			DIODE ZENER IN3019	33	O			MOI	MC			OSE
A	48-14146	A		SEMICONDUCTOR DEVICE	33	V	01	65	MOI	MC			OSE
A	48-29546	A	A	SEMICONDUCTOR DEVICE	33	V	01	65	MOI	MC			OSE
A	48-29547	A		TRANSISTOR SILICON NPN	33	V	01	65	MOI	MC			OSE
A	48-29553	A	B	SEMICONDUCTOR DEVICE	33	V	01	65	MOI	MC			OSE
A	48-29566	A		TRANSISTOR SILICON	33	V	01	65	MOI	MC			OSE
A	55-14819	A		LATCH-SNAPSLIDE FAST	33	V	12	64	MOI	MC	01-21316D01		OSE
A	55-14819	A		LATCH-SNAPSLIDE FAST	33	V	12	64	MOI	MC	01-21317D01		OSE
A	55-14819	A		LATCH SNAPSLIDE FAST	33	V	12	64	MOI	MC	01-21318D01		OSE
C	55-29135	C	A	HINGE	33	V	12	63	MOI	MC			OSE
B	58-22477	B	C	COUPLING ATTENUATOR	33	L	10	64	JPL	MC	01-20233E01		OSE
B	58-24477	B	C	COUPLING ATTENUATOR	33	L	10	64	JPL	MC	01-20249E01		OSE

JPL 1880 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 113 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DRAW NO.	ENG LTR	TITLE	DISP DIV.	SYS STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	MADE ON	NEXT ASSEMBLY	QTY COL	REFERENCE NUMBER
D	58-24493	B	D	STEP ATTENUATOR	33	L	10	64	JPL	MC	01-20249E01		OSE
J	63-20185	E	B	MODULATION CONTROL PANEL	33	L	10	64	JPL	MC	01-20166E01		OSE
D	63-20192	E	B	29.35 MC AMPL SCHEMATIC	33	L	10	64	JPL	MC	01-20179E01		OSE
J	63-20198	E	B	X48 MULTIPLIER-	33	L	10	64	JPL	MC	01-20239E01		OSE
D	63-20232	E	A	AGC FILT SCHEMATIC	33	L	10	64	JPL	MC	01-20240E01		OSE
J	63-20264	E	A	OSCILLATOR SCHEMATIC	33	L	10	64	JPL	MC	01-20236E01		OSE
J	63-20266	E	C	VOLTAGE SCHEMATIC DIAG	33	L	10	64	JPL	MC	01-20238E03		OSE
J	63-20266	E	C	VOLTAGE SCHEMATIC DIAG	33	L	10	64	JPL	MC	01-20238E02		OSE
J	63-20266	E	C	VOLTAGE SCHEMATIC DIAG	33	L	10	64	JPL	MC	01-20238E01		OSE
J	63-20286	E	B	498 KC CRYSTAL OSCILLAT	33	L	10	64	JPL	MC	01-20231E01		OSE
J	63-20290	E	B	498 KC VCO SCHEMATIC	33	L	10	64	JPL	MC	01-20226E01		OSE
D	63-20301	E	D	LOOP FILTER SCHEMATIC	33	L	10	64	JPL	MC	01-20237E01		OSE
J	63-20303	E	B	498 KC PHASE SHIFTER	33	L	10	64	JPL	MC	01-20229E01		OSE
J	63-20304	E	A	29MC PHASE SCHEMATIC DIA	33	L	10	64	JPL	MC	01-20221E01		OSE
J	63-20306	E	D	DUAL CONVERSION SCHEM	33	L	10	64	JPL	MC	01-20246E03		OSE
J	63-20306	E	D	DUAL CONVERSION SCHEM	33	L	10	64	JPL	MC	01-20246E02		OSE
J	63-20306	E	D	DUAL CONVERSION SCHEM	33	L	10	64	JPL	MC	01-20246E01		OSE
D	63-20310	E	C	VCO FILTER SCHEMATIC	33	L	10	64	JPL	MC	01-20243E01		OSE
D	63-20313	E	B	S/C MON SCHEMATIC	33	L	10	64	JPL	MC	01-20168E01		OSE
D	63-20321	E	C	RANGE CODE CONT SCHEM	33	L	10	64	JPL	MC	01-20121E01		OSE
D	63-20323	E	B	ISOLATION AMPL SCHEMATIC	33	L	10	64	JPL	MC	01-20241E01		OSE
J	63-20324	E	D	FREQ SCHEMATIC DIAG	33	L	10	64	JPL	MC	01-20230E01		OSE
C	63-20326	E	A	COUNTER SWITCHING	33	L	10	64	JPL	MC	01-20153E01		OSE
D	63-20327	E	B	PANEL ASSY SCHEMATIC	33	L	10	64	JPL	MC	01-20160E01		OSE
J	63-20328	E	B	MONITOR S/C TEST POINTS	33	L	10	64	JPL	MC	01-20150E01		OSE
C	63-20348	E	A	MIXER 2116/2298 SCHEMATI	33	L	10	64	JPL	MC	01-20247E01		OSE
J	63-20367	E	C	PHASE MODULATOR 88 MC	33	L	10	64	JPL	MC	01-20251E01		OSE
J	63-20368	E	B	X24 FREQUENCY MULTIPLIER	33	L	10	64	JPL	MC	01-20252E01		OSE
D	63-20369	E	A	VCO BIAS ASSY SCHEM	33	L	10	64	JPL	MC	01-20254E01		OSE
D	63-20370	E	A	ISOLATION AMPL SCHEM	33	L	10	64	JPL	MC	01-20253E01		OSE
D	63-20373	E	A	498 KC PHASE SCHEMATIC	33	L	10	64	JPL	MC			OSE
J	63-20376	E	A	29.35 MC PHASE SWITCH	33	L	10	64	JPL	MC	01-20257E01		OSE
J	63-20377	E	A	29.35 MC BALANCED DET	33	L	10	64	JPL	MC	01-20222E01		OSE
J	63-20378	E	A	498 KC IF AMPL SCHEM	33	L	10	64	JPL	MC	01-20223E01		OSE
J	63-20379	E	A	498 KC PHASE DETECTOR	33	L	10	64	JPL	MC	01-20224E01		OSE
C	63-20380	E	A	TRACKING FILTER SCHEM	33	L	10	64	JPL	MC	01-20225E01		OSE
J	63-20381	E	A	498 KC CORRELATION SCHEM	33	L	10	64	JPL	MC	01-20227E01		OSE
D	63-20382	E	A	CORRELATION SCHEMATIC	33	L	10	64	JPL	MC	01-20228E01		OSE
D	63-20383	E	B	CRYSTAL SCHEMATIC DIAG	33	L	10	64	JPL	MC	01-20234E01		OSE
J	63-20384	E	A	AMPL 29.35 SCHEMATIC	33	L	10	64	JPL	MC	01-20233E01		OSE

JPL 1200 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 114 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DRAW NO.	ENG LTR	TITLE	DISP DIV.	SYS STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	MADE ON	NEXT ASSEMBLY	QTY COL	REFERENCE NUMBER
J	63-20385	E	A	PHASE DETECTOR SCHEMATIC	33	L	10	64	JPL	MC	01-20151E01		OSE
D	63-20386	E	A	PREAMPL SCHEMATIC	33	L	10	64	JPL	MC			OSE
J	63-20387	E	A	OSCILLATOR 22 MC VCO	33	L	10	64	JPL	MC	01-20250E03		OSE
J	63-20387	E	A	OSCILLATOR 22 MC VCO	33	L	10	64	JPL	MC	01-20250E02		OSE
J	63-20387	E	A	OSCILLATOR 22 MC VCO	33	L	10	64	JPL	MC	01-20250E01		OSE
J	63-20389	E	A	FILTER SCHEMATIC DIAG	33	L	10	64	JPL	MC	01-20242E01		OSE
J	63-20390	E	A	OSCILLATOR &MIXER WAVE	33	L	10	64	JPL	MC	01-20269E01		OSE
C	63-20438	D		IMC LOGIC TO PR SCHEM	33	V	01	65	MOI	MC			OSE
C	63-21911	D		IP/IS TERM SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-21946	D		LOGIC BUFFER SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-22862	C		TWO HIGH PWR 4 INPUT	33	V	01	65	MOI	MC			OSE
D	63-24502	B	A	XMITTER SUBASSY SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24502	B	E	VCO BIAS ASSY SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24503	B	E	PHASE MOD SCHEM 1A1A2	33	V	12	63	MOI	MC			OSE
Y	63-24503	B	A	XMITTER SUBAY SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24504	B	A	FREQ MULT SCHEM 2A1A10	33	V	12	63	MOI	MC			OSE
D	63-24505	B	A	RECEIVER SUBASSY SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24505	B	D	DUAL ISOLATION AMPLIFIER	33	V	12	63	MOI	MC			OSE
D	63-24506	B	A	RECEIVER SUBASSY SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24506	B	D	CRYSTAL SCHEMATIC	33	V	12	63	MOI	MC			OSE
F	63-24507	B	C	OSCILLATOR SCHEM 2A1A6	33	V	12	63	MOI	MC			OSE
F	63-24507	B	A	RECEIVER SUBAY SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24508	B	A	RECEIVER SUBASSY SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24508	B	D	LOOP FILTER SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24509	B	A	RECEIVER SUBASSY SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24509	B	C	AGC FILTER SCHEM	33	V	12	63	MOI	MC			OSE
J	63-24551	B	G	OSCILLATOR 13MC VCO TEST	33	L	10	64	JPL	MC			OSE
F	63-24565	B	A	AMPLIFIER SCHEMATIC	33	V	12	63	MOI	MC			OSE
F	63-24565	B	D	AMPLIFIER SCHEM 2A1A4	33	V	12	63	MOI	MC			OSE
F	63-24572	B	A	XMITTER SUBASSY SCHEM	33	V	12	63	MOI	MC			OSE
J	63-24574	B	A	XMITTER SUBSSY OSC SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24574	B	F	OSCILLATOR SCHEM 1A1A1	33	V	12	63	MOI	MC			OSE
J	63-24575	B	A	RECEIVER DETECTOR SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24575	B	C	PHASE DETECT SCHEM 2A1A5	33	V	12	63	MOI	MC			OSE
F	63-24583	B	A	RECEIVER 2A1A15 SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24583	B	D	FILTER SCHEMATIC 2A1A15	33	V	12	63	MOI	MC			OSE
D	63-24586	B		RECEIVER SCHEM 2A1A17	33	V	12	63	MOI	MC			OSE
D	63-24586	B	C	VCO FILTER SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24594	B	A	XMITTER SUBASSY SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24594	B	D	ISOLATION AMPL SCHEM	33	V	12	63	MOI	MC			OSE

JPL 1200 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 115 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
E	63-24606	B	B	FREQ MULT SCHEM 2A1A10	33	V	12	63	MOI	MC			OSE
F	63-24607	B	D	FREQ MULT SCHEM 1A1A3	33	V	12	63	MOI	MC			OSE
H	63-24610	B	E	498 KC CORRELATION SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24611	B	C	SCHEMATIC DGM 2A4A5	33	V	12	63	MOI	MC			OSE
F	63-24612	B	D	29.3KMC PHASE SW SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24613	B	C	498KC IF AMP SCHEM 2A4A6	33	V	12	63	MOI	MC			OSE
F	63-24614	B	C	SCHEM DGM 2A4A18,25	33	V	12	63	MOI	MC			OSE
H	63-24618	B	C	498 KC VCO SCHEMATIC	33	V	12	63	MOI	MC			OSE
J	63-24619	B	D	498KC PHASE DETECT SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24620	B	B	SCHEM DGM 2A4A15,17,24	33	V	12	63	MOI	MC			OSE
E	63-24621	B	C	39MC PHASE SHIFTER SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24622	B	C	5 FREQ SHIFTER SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24623	B	F	4/3 FREQ SHIFTER SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24624	B	C	TRACKING FILTER SCHEM	33	V	12	63	MOI	MC			OSE
D	63-24625	B	E	CORRELATN INDICATR SCHEM	33	V	12	63	MOI	MC			OSE
F	63-24626	B	C	22MC ISOLATION AMP SCHEM	33	V	12	63	MOI	MC			OSE
C	63-26341	B		CLOCK/RESET/LINE SCHEM	33	V	01	65	MOI	MC			OSE
F	63-26347	C	A	181MC OSC SCHEM 1A4A1	33	V	12	63	MOI	MC			OSE
J	63-26350	B	D	SCHEM TEST POINT	33	V	11	64	MOI	MC	01-21138D01		OSE
J	63-26350	B	D	SCHEM TRANSFORMER	33	V	11	64	MOI	MC	01-21220D01		OSE
F	63-26351	B	D	SCHEM DC POWER DISTR	33	V	11	64	MOI	MC	01-21139D01		OSE
F	63-26351	D	D	SCHEM POWER CONTROL 2A8	33	V	11	64	MOI	MC	01-21142D01		OSE
F	63-26351	B	D	SCHEMATIC TOP ASSY OSE	33	V	11	64	MOI	MC	01-21232D01		OSE
D	63-26352	B	B	SCHEM BAY PWR SUPPLY	33	V	12	63	MOI	MC	01-21115D01		OSE
	63-26353	B		SCHEM F/E TEST DWR	33	O			MOI	MC	01-21147D01		OSE
J	63-26360	B	D	SCHEMATIC CONTROL PANEL	33	V	11	64	MOI	MC	01-21132D		
D	63-26365	B	C	SCHEMATIC RELAY ASY 1A11	33	V	11	64	MOI	MC	01-21133D		
D	63-26371	B	B	SCHEM COMMAND MOD AMPL	33	V	12	63	MOI	MC	01-21178D01		OSE
D	63-26372	B	A	SCHEM OSC SHAPER 1A5A10	33	V	12	63	MOI	MC	01-21179D01		OSE
D	63-26373	B	A	SCHEM 512FS VCO 1A5A1	33	V	12	63	MOI	MC	01-21171D02		OSE
D	63-26374	B	C	SCHEM MOD SUMMING AMPL	33	V	12	63	MOI	MC	01-21177D01		OSE
D	63-26382	C	A	PREAMPLIER SCHEM	33	V	12	63	MOI	MC			OSE
C	63-26382	B		GATED LAMP SCHEM	33	L	10	64	JPL	MC	01-20233E01		OSE
C	63-26382	B		GATED LAMP SCHEM	33	L	10	64	JPL	MC	01-26383E01		OSE
J	63-26389	B	A	MODE INDICATOR SCHEMATIC	33	L	10	64	JPL	MC	01-21319E01		OSE
J	63-26389	B	A	MODE INDICATOR SCHEMATIC	33	L	10	64	JPL	MC	01-20148		OSE
D	63-26391	B	A	MODE INDICATOR MOD SCHEM	33	L	10	64	JPL	MC			OSE
C	63-26407	C	A	RF MIXER SCHEM	33	V	12	63	MOI	MC			OSE
C	63-26416	B	A	LEVEL DET SCHEMATIC	33	L	10	64	JPL	MC	01-21317		OSE
C	63-26416	B	A	LEVEL DET SCHEMATIC	33	L	10	64	JPL	MC	01-26417E01		OSE

JPL 1888 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 116 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
C	63-26420	B	A	LOGIC LEVEL SCHEMATIC	33	L	10	64	JPL	MC	01-26421E01		OSE
C	63-26420	B	A	LOGIC LEVEL SCHEMATIC	33	L	10	64	JPL	MC	01-21318		OSE
C	63-26424	B	A	QUAD EMITTER SCHEM	33	L	10	64	JPL	MC	01-26425E01		OSE
C	63-26428	B	A	LOGIC LEVEL CONVER SCHEM	33	L	10	64	JPL	MC	01-21318E01		OSE
C	63-27699	A		PNP LAMP/RELAY DR SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28611	A		EPSCO TO PRINTER SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28613	A		JKT FLIP FLOP SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-28614	A		9 INPUT NAND GATE SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28615	A		8 INPUT NAND GATE SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28617	A		2 PARALLELED SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-28618	A		TWO 3 INPUT SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-28619	A		TWO 4 INPUT SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-28620	A		INV SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-28621	A		TRIGGER SHAPER SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28622	A	B	CLOCK SHAPER SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28623	A		IS SWITCH SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-28625	A		DUAL IP SW SCHEMATIC	33	V	01	65	MOI	MC			OSE
C	63-28627	A		JK/T FLIP FLOP HP SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28629	A		LOW BAND LINE DR SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28636	A		NPN LAMP/RELAY SCHEM	33	V	01	65	MOI	MC			OSE
C	63-28649	A		DUAL 3 INPUT SCHEMATIC	33	V	01	65	MOI	MC			OSE
	64-15025			LAMP INCANDESCENT	33	O			MOI	MC			OSE
	64-15026			LAMP NEON	33	O			MOI	MC			OSE
D	64-15096	A	A	FUSE CARTRIDGE	33	V	01	65	MOI	MC			OSE
D	64-20114	E	A	PANEL BLANK	33	L	10	64	JPL	MC			OSE
D	64-20115	E	A	PANEL BLANK	33	L	10	64	JPL	MC			OSE
D	64-20116	E	A	PANEL BLANK	33	L	10	64	JPL	MC			OSE
C	64-20136	E	A	PANEL 2A4	33	L	10	64	JPL	MC	01-20102E01		OSE
J	64-20173	E	A	PANEL TERMINAL BOARD	33	L	10	64	JPL	MC	01-20157E01		OSE
D	64-20181	E	B	PANEL BREAKER 1A1	33	L	10	64	JPL	MC	01-20120E01		OSE
D	64-20182	E	B	PANEL BREAKER 2A1	33	L	10	64	JPL	MC	01-20133E01		OSE
D	64-20186	E	B	PANEL BREAKER 3A1	33	L	10	64	JPL	MC	01-20146E01		OSE
J	64-20187	E	B	PANEL MON S/C RF/	33	L	10	64	JPL	MC	01-20245E01		OSE
J	64-20188	E	A	PANEL OSE CONNECTOR	33	L	10	64	JPL	MC	01-20171E01		OSE
J	64-20189	E	B	PANEL S/C CONNECTOR	33	L	10	64	JPL	MC	01-20158E01		OSE
C	64-20193	E	A	PLATE RF SEAL	33	L	10	64	JPL	MC	01-20249E01		OSE
C	64-20195	E	A	PANEL BLANK PAINTED	33	L	10	64	JPL	MC	64-20156E01		OSE
C	64-20196	E	A	PANEL BLANK PAINTED	33	L	10	64	JPL	MC	64-20161E01		OSE
C	64-20196	E	A	PANEL BLANK PAINTED	33	L	10	64	JPL	MC	64-20134E01		OSE
C	64-20196	E	A	PANEL BLANK PAINTED	33	L	10	64	JPL	MC	64-20128E01		OSE

JPL 1888 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 117 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL.	REFERENCE NUMBER
J	64-20256	E	A	PANEL MONITOR	33	L	10	64	JPL	MC	01-20150E01		OSE
J	64-20258	E	D	PANEL FRONT-RANGING	33	L	10	64	JPL	MC	01-20220E01		OSE
J	64-20259	E	B	PLATE TOP RANGING REC	33	L	10	64	JPL	MC	01-20220E01		OSE
J	64-20260	E	C	PLATE BOTTOM-RANGING	33	L	10	64	JPL	MC	01-20220E01		OSE
D	64-20270	E	A	PANEL COUNTER SWITCH	33	L	10	64	JPL	MC	01-20153E01		OSE
D	64-20276	E	A	PANEL S/C RUNNING TIME	33	L	10	64	JPL	MC	01-20160E01		OSE
J	64-20280	E	A	PANEL FRONT	33	L	10	64	JPL	MC	01-20121E01		OSE
D	64-20295	E	A	PANEL MONITOR	33	L	10	64	JPL	MC	01-20168E01		OSE
J	64-20307	E	B	PANEL MODULATION	33	L	10	64	JPL	MC	01-20166E01		OSE
J	64-20342	E	A	PANEL CONNECTOR	33	L	10	64	JPL	MC	01-20131E01		OSE
J	64-20343	E	A	PANEL CONNECTOR	33	L	10	64	JPL	MC	01-20144E01		OSE
C	64-20352	E	A	MOUNTING PLATE	33	L	10	64	JPL	MC	01-20233E01		OSE
C	64-20352	E	A	MOUNTING PLATE	33	L	10	64	JPL	MC	01-20249E01		OSE
C	64-21084	D		NOISE GEN PNL MOD	33	V	01	65	MOI	MC			OSE
C	64-21085	D	B	PANEL DATA LOGGER	33	V	12	63	MOI	MC	01-21148		OSE
	64-21089	D		PANEL INPUT SELECTOR PNL	33	O			MOI	MC			OSE
F	64-21097	D	C	PANEL POWER CONT CONNECT	33	V	12	63	MOI	MC	01-21142		OSE
F	64-21110	D	C	PANEL FRONT POWER CONT	33	V	12	63	MOI	MC	01-21142		OSE
F	64-21118	D	C	PANEL TEST POINT SELECTR	33	V	12	63	MOI	MC			OSE
D	64-21123	D	B	STRIP HINGE MOUNTING	33	V	12	63	MOI	MC			OSE
	64-21149	D		SHIM PANDUIT #1	33	O			MOI	MC			OSE
	64-21150	D		SHIM PANDUIT #2	33	O			MOI	MC			OSE
	64-21151	D		SHIM PANDUIT #3	33	O			MOI	MC			OSE
	64-21152	D		SHIM PANDUIT #4	33	O			MOI	MC			OSE
J	64-21161	D	C	PANEL CONTROL	33	V	12	63	MOI	MC	01-21132		OSE
D	64-21180	D	A	CONNECTOR PANEL UNIT 3	33	V	12	63	MOI	MC	01-23148		OSE
C	64-21182	D		PANDUIT SHIM #5	33	V	01	65	MOI	MC			OSE
C	64-21183	D		PANDUIT SHIM #6	33	V	01	65	MOI	MC			OSE
D	64-21184	D	C	CONNECTOR PANEL UNIT 1	33	V	12	63	MOI	MC			OSE
F	64-21185	D	A	PANEL BLANK	33	V	12	63	MOI	MC			OSE
D	64-21186	D	B	CONNECTOR PANEL UNIT 2	33	V	12	63	MOI	MC			OSE
	64-21187	D		PNL FRONT FE TEST DWR	33	O			MOI	MC			OSE
D	64-21188	D	B	PLATE VCO MOUNTING	33	V	12	63	MOI	MC			OSE
D	64-21191	D	A	PANEL DIFFERENTIAL AMPL	33	V	01	65	MOI	MC			OSE
	64-21193	D		STRIP HINGE MTG-DIFF	33	O			MOI	MC			OSE
D	64-21195	D		PANEL INPUT SELECTOR	33	V	12	63	MOI	MC	01-21144		OSE
D	64-21196	D	A	PANEL DIGITAL VOLTMETER	33	V	12	63	MOI	MC	01-21145		OSE
B	64-21197	D	B	STRIP POWER SUPPLY SLIDE	33	V	12	63	MOI	MC	01-21139		OSE
B	64-21221	D	A	BOARD TERMINAL	33	V	01	65	MOI	MC			OSE
B	64-21222	D	B	PLATE CONNECTOR RETAIN	33	IO			MOI	MC			OSE

JPL 1300 JUN 62

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 118 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL.	REFERENCE NUMBER
C	64-21223	D	A	BD TERMINAL TEST POINT	33	V	01	65	MOI	MC	01-21138D01		OSE
D	64-21224	D	B	PLATE MTG BARRIER STRIP	33	V	12	63	MOI	MC	64-21224		OSE
B	64-21238	D		PLATE SLIDE MTG DETECTOR	33	V	12	63	MOI	MC			OSE
B	64-21239	D		PLATE	33	V	12	63	MOI	MC			OSE
B	64-21240	D		PLATE SLIDE MTG PROGRAMR	33	V	12	63	MOI	MC			OSE
	64-21241	D		BD TERMINAL DIODE MTG	33	O			MOI	MC			OSE
B	64-21264	D	A	STRIP CONTROL PANEL	33	IO			MOI	MC			OSE
D	64-21274	D	C	PANEL OSE TITLE	33	V	12	63	MOI	MC			OSE
C	64-21311	D	B	PLATE MTG	33	L	10	64	JPL	MC	01-20148E01		OSE
D	64-21312	D	B	PLATE MTG CONNECTOR	33	L	10	64	JPL	MC	01-20148E01		OSE
J	64-21313	D	C	PANEL MODE INDICATOR	33	L	10	64	JPL	MC	01-21319D01		OSE
J	64-21313	D	C	PANEL MODE INDICATOR	33	L	10	64	JPL	MC	01-20148		OSE
C	64-21315	D	A	BOARD TERMINAL-MODE	33	L	10	64	JPL	MC	01-20148E01		OSE
D	64-21977	D	B	PANEL FRONT	33	V	12	63	MOI	MC			OSE
F	64-23396	C	B	PLATE-CONNECTOR	33	V	12	63	MOI	MC			OSE
J	64-23397	C	A	SIDE PLATE	33	V	12	63	MOI	MC			OSE
C	64-23426	C	C	PLATE ADAPTOR FRONT RH	33	V	12	63	MOI	MC			OSE
C	64-23427	C	C	PLATE ADAPTOR FRONT LH	33	V	12	63	MOI	MC			OSE
C	64-23428	C	A	PLATE SLIDE MTG REAR	33	V	01	65	MOI	MC			OSE
	64-24429	B	B	PLATE INSULATOR	33	V	10	63	MOI	MC			OSE
B	64-24460	B	C	PLATE INSULATOR	33	L	10	64	JPL	MC	01-20237E01		OSE
C	64-24474	B	D	PLATE PLAIN-CONNECTOR	33	L	10	64	JPL	MC	01-20233E01		OSE
C	64-24474	B	D	PLATE PLAIN-CONNECTOR	33	L	10	64	JPL	MC	01-20249E01		OSE
C	64-24474	B	D	PLATE PLAIN-CONNECTOR	33	L	10	64	JPL	MC	01-20245E01		OSE
C	64-24474	B	D	PLATE PLAIN-CONNECTOR	33	L	10	64	JPL	MC	01-20220E01		OSE
C	64-24664	B	A	PLATE RF SEAL	33	L	10	64	JPL	MC	01-20249E01		OSE
C	64-24669	B	A	PLATE RF SEAL REAR	33	V	10	63	MOI	MC			OSE
C	64-24672	B	B	PLATE SLIDE COVER	33	L	10	64	JPL	MC	01-20249E01		OSE
D	64-24673	B	A	PLATE TOP COVER	33	V	01	65	MOI	MC	01-20249E01		OSE
D	64-24674	B	A	PLATE BOTTOM COVER	33	L	10	64	JPL	MC	01-20249E01		OSE
D	64-24685	B	A	PLATE CHASSIS TOP LARGE	33	V	10	63	MOI	MC			OSE
C	64-26342	C	B	PLATE MTG #2 SN 3	33	V	10	63	MOI	MC			OSE
C	64-26356	C	A	PLATE MTG VCO SELECTR SW	33	V	10	63	MOI	MC			OSE
D	64-26406	C	B	PANEL BACK UPPER RECEIVR	33	V	10	63	MOI	MC			OSE
	64-26906	B		PANEL POWER SUPPLY	33	O			MOI	MC			OSE
D	64-26925	B	D	PANEL-SINGLE	33	V	12	63	MOI	MC			OSE
D	64-26930	B	D	PANEL DOUBLE	33	V	12	63	MOI	MC			OSE
D	64-26960	B	A	PANEL PWR SUPPLY	33	V	01	65	MOI	MC			OSE
C	64-26968	B	A	PLATE CONNECTOR MOUNTING	33	V	12	63	MOI	MC			OSE
D	64-27673	B	A	PLATE TOP COVER	33	L	10	64	JPL	MC	01-20249E01		OSE

JPL 1300 JUN 62

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 119 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	REQP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
A	65-15025	A		LAMP INCANDESCENT	33	V	01	65	MOI	MC			OSE
A	65-15026	A		LAMP GLOW	33	V	01	65	MOI	MC			OSE
D	65-15096	A	A	FUSE CARTRIDGE	33	V	01	65	MOI	MC			OSE
B	65-26418	C	A	PLATE BLANK	33	L	10	64	JPL	MC			OSE
C	65-26419	C	B	PLATE NUT-CAPACITOR	33	L	10	64	JPL	MC	01-20233E		OSE
C	65-26434	C	A	PLATE DIODE-MIXER	33	L	10	64	JPL	MC	01-20247E01		OSE
C	65-26436	C	A	PLATE FEED THRU MIXER	33	V	01	65	MOI	MC	01-20247		OSE
J	69-20106	E	B	RANGING RECEIVER	33	L	10	64	JPL	MC	01-20135E01		OSE
J	69-20107	E	B	RECEIVER PHASE-LOCK	33	L	10	64	JPL	MC	01-20137E01		OSE
J	69-20108	E	C	MONITOR S/C RF/CONVERTER	33	L	10	64	JPL	MC	01-20151E01		OSE
J	69-20109	E	A	TEST TRANSMITTER	33	L	10	64	JPL	MC	01-20249E01		OSE
J	69-20109	E	A	TEST TRANSMITTER	33	L	10	64	JPL	MC	01-20165E01		OSE
J	69-20110	E	B	TB & INTERFACE PANELS	33	L	10	64	JPL	MC	01-20157E01		OSE
J	69-20110	E	B	TB & INTERFACE PANELS	33	L	10	64	JPL	MC	01-20112E01		OSE
J	69-20309	E	C	RECEIVER RANGING	33	L	10	64	JPL	MC	01-20135E01		OSE
J	69-20325	E	C	RECEIVER PHASE-LOCK	33	L	10	64	JPL	MC	01-20137E01		OSE
D	69-20330	E	B	MONITOR S/C RF/CONVERTER	33	L	10	64	JPL	MC	01-20151E01		OSE
D	69-20331	E	B	AMPL ISOLATION S-BAND	33	L	10	64	JPL	MC	01-20147E01		OSE
J	69-20336	E	A	RACKS 1 AND 2	33	L	10	64	JPL	MC	01-20111E01		OSE
D	69-20337	E	C	TRANSMITTER TEST	33	L	10	64	JPL	MC	01-50249E01		OSE
D	69-20337	E	C	TRANSMITTER TEST	33	L	10	64	JPL	MC	01-20165E01		OSE
J	69-20341	E	A	RACKS 3 & 4 S-BAND	33	L	10	64	JPL	MC	01-20146E01		OSE
J	69-20358	E	C	TERMINAL BD PANEL W DIAG	33	L	10	64	JPL	MC	01-20157E01		OSE
J	69-20359	E	C	PANEL S/C CONNECTORS	33	L	10	64	JPL	MC	01-20158E01		OSE
J	69-20360	E	B	PANEL OSE CONNECTORS	33	L	10	64	JPL	MC	01-20171E01		OSE
D	69-20361	E	A	2.4 KC PWR CABLING	33	L	10	64	JPL	MC	01-20112E01		OSE
D	69-20361	E	A	2.4 KC PWR CABLING	33	L	10	64	JPL	MC	01-20158E01		OSE
D	69-20362	E	B	MODE INDICATOR CONNECTIO	33	L	10	64	JPL	MC	01-20157E01		OSE
D	69-20362	E	B	MODE INDICATOR CONNECTIO	33	L	10	64	JPL	MC	01-20112E01		OSE
D	69-20363	E	A	S/C TEST POINT MONITOR	33	L	10	64	JPL	MC	01-20157E01		OSE
D	69-20363	E	A	S/C TEST POINT MONITOR	33	L	10	64	JPL	MC	01-20112E01		OSE
D	69-20364	E	B	PLUS28VDC PWR & METERING	33	L	10	64	JPL	MC	01-20157E01		OSE
D	69-20364	E	B	PLUS28VDC PWR & METERING	33	L	10	64	JPL	MC	01-20112E01		OSE
	69-21257	D		LOGIC POWER CONTROL	33	O			MOI	MC	01-21142D01		OSE
F	69-22587	B	A	TELE COMMUNICATIONS COMM	33	V	12	63	MOI	MC			OSE
F	69-22588	B	A	MISC COMMANDS	33	V	12	63	MOI	MC			OSE
F	69-22589	B	A	DAS COMMANDS	33	V	12	63	MOI	MC			OSE
F	69-22590	B	A	STORED COMMANDS	33	V	12	63	MOI	MC			OSE
J	69-22591	B	A	DETECTOR	33	V	12	63	MOI	MC			OSE
E	69-22592	B	A	PROGRAM CONTROL	33	V	12	63	MOI	MC			OSE

JPL 1555 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 120 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	REQP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
J	69-24512	B	E	2295MC TEST RCVR BLOCK	33	V	12	63	MOI	MC			OSE
J	69-24512	B	A	RECEIVER BLOCK DGM	33	V	12	63	MOI	MC			OSE
F	69-24552	B	A	TEST XMITTER BLOCK DGM	33	V	12	63	MOI	MC			OSE
F	69-24552	B	C	TEST XMITTER BLOCK DGM	33	V	12	63	MOI	MC			OSE
F	69-24584	B	A	S BAND TEST SET 2A1	33	V	12	63	MOI	MC			OSE
F	69-24584	B	D	TEST RECEIVER 2A1	33	V	12	63	MOI	MC			OSE
D	69-24588	B	B	PWR FILTER 1A1	33	V	12	63	MOI	MC			OSE
D	69-24588	B	D	TEST TRANSMITTER 1A1	33	V	12	63	MOI	MC			OSE
F	69-24615	B	F	RANGING SUBSYS BLCK DGM	33	V	12	63	MOI	MC			OSE
J	69-25712	A	A	MODE INDICATOR PANEL	33	L	10	64	JPL	MC	01-20148E01		OSE
F	69-26342	B	B	LOGIC BI-TO-OCTAL MATRIX	33	V	12	63	MOI	MC	01-21104D006		OSE
F	69-26342	B	B	LOGIC BINARY-OCT-MATRIX	33	V	12	63	MOI	MC	01-21104D004		OSE
F	69-26342	B	B	LOGIC BINARY-OCT-MATRIX	33	V	12	63	MOI	MC	01-21104D001		OSE
F	69-26342	B	B	LOGIC BINARY-OCT-MATRIX	33	V	12	63	MOI	MC	01-21104D003		OSE
D	69-26344	B	A	LOGIC LOGIC LEVEL CONN	33	V	12	63	MOI	MC	01-21096D003		OSE
F	69-26345	B	A	BINARY COUNTER CARD	33	V	12	63	MOI	MC	01-21101		OSE
J	69-26346	B	D	LOGIC ASYNCHRONOUS 1A5A3	33	V	11	64	MOI	MC	01-21101D03		OSE
J	69-26346	B	D	LOGIC	33	V	11	64	MOI	MC	01-21129D01		OSE
J	69-26346	B	D	LOGIC DIGITAL PH SHIFTER	33	V	11	64	MOI	MC	01-21172D01		OSE
J	69-26346	B	D	LOGIC SHIFT REGISTER	33	V	11	64	MOI	MC	01-21174D01		OSE
J	69-26346	B	D	LOGIC REF SELECTION	33	V	11	64	MOI	MC	01-21176D01		OSE
J	69-26346	B	D	LOGIC TIMING GENERATION	33	V	11	64	MOI	MC	01-21200D01		OSE
J	69-26346	B	D	LOGIC PHASE MODULATOR	33	V	11	64	MOI	MC	01-22000D02		OSE
J	69-26347	B	D	LOGIC ADDRESS COMPARITOR	33	V	11	64	MOI	MC	01-21104D02		OSE
J	69-26347	B	D	LOGIC SWITCH TERMINATION	33	V	11	64	MOI	MC	01-21205D		OSE
J	69-26347	B	D	LOGIC SCANNER 1A5A2	33	V	11	64	MOI	MC	01-21206D		OSE
J	69-26347	B	D	LOGIC 6 STAGE BIT COUNTR	33	V	11	64	MOI	MC	01-21207D		OSE
J	69-26347	B	D	LOGIC QC ERROR DETECTOR	33	V	11	64	MOI	MC	01-21208D		OSE
J	69-26347	B	D	LOGIC ERROR DETECTOR	33	V	11	64	MOI	MC	01-21209D		OSE
J	69-26347	B	D	LOGIC BIT ERROR DETECTOR	33	V	11	64	MOI	MC	01-21210D		OSE
J	69-26347	B	D	LOGIC RECEIVED ADD REG	33	V	11	64	MOI	MC	01-21211D		OSE
J	69-26347	B	D	LOGIC RECEIVED ADD DR	33	V	11	64	MOI	MC	01-21212D		OSE
J	69-26347	B	D	LOGIC COMMAND MONITOR	33	V	11	64	MOI	MC	01-21130D01		OSE
J	69-26347	B	D	LOGIC RWV SELECTION	33	V	11	64	MOI	MC	01-21303D01		OSE
J	69-26348	B	D	LOGIC COMMAND PROGRAMMER	33	V	11	64	MOI	MC	01-21131D01		OSE
J	69-26348	B	D	LOGIC DTP ISOLATION BD 3	33	V	11	64	MOI	MC	01-21294D01		OSE
J	69-26348	B	D	LOGIC RELAY DRIVER BD	33	V	11	64	MOI	MC	01-21219D01		OSE
J	69-26348	B	D	LOGIC DTP ISOLATION BD 2	33	V	11	64	MOI	MC	01-21218D01		OSE
J	69-26348	D01	D	LOGIC DTP ISOLATION BD 1	33	V	11	64	MOI	MC	01-21217D01		OSE
J	69-26348	B	D	LOGIC ADDRESS GENERATION	33	V	11	64	MOI	MC	01-21215D01		OSE

JPL 1555 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 121 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	SYS LTR	TITLE	REQP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	EFF DEL.	REFERENCE NUMBER
J	69-26348	B	D	LOGIC TIMING GENERATION	33	V	11	64	MOI	MC	01-21214D01		OSE
J	69-26348	B	D	LOGIC BIT TIME COUNTER	33	V	11	64	MOI	MC	01-21213D01		OSE
J	69-26349	B	B	LOGIC 3 VOLT PICKOFF	33	V	11	64	MOI	MC	01-21102D01		OSE
J	69-26349	B	B	LOGIC 32 VOLT PICKOFF	33	V	11	64	MOI	MC	01-21102D02		OSE
J	69-26349	B	B	LOGIC CLOCK GENERATOR	33	V	11	64	MOI	MC	01-21107D01		OSE
J	69-26349	B	B	LOGIC INVERTER	33	V	11	64	MOI	MC	01-21234D01		OSE
J	69-26353	B	B	FUNCTIONAL ELEMENT TEST	33	V	01	65	MOI	MC			OSE
F	69-26354	B	B	LOGIC TOP ASSY OSE	33	V	12	63	MOI	MC	01-21232D01		OSE
D	69-26355	B	A	POWER CONTROL DRAWER	33	V	12	63	MOI	MC			OSE
D	69-26358	B	B	NPN LAMP/RELAY DRIVERS	33	V	11	64	MOI	MC	01-21099D02		
D	69-26358	B	B	LOGIC PNP LAMP/RELAY DR	33	V	11	64	MOI	MC	01-21099D01		OSE
	69-26366	C		BLOCK DIAGRAM SCHEMATIC	33	V	02	65	MOI	MC			OSE
	69-26367	B		3A1 SCHEMATIC	33	O			MOI	MC	01-21144		OSE
D	69-26368	B	A	LOGIC C/R/L DRIVER	33	V	12	63	MOI	MC	01-21163D04		OSE
F	69-26369	B	A	LOGIC SHIFT REGISTER	33	V	12	63	MOI	MC	01-21174D05		OSE
	69-26370	B		LOGIC PRINTER BUFFER	33	V	12	63	MOI	MC			OSE
D	69-26386	B	A	MODE INDICATOR BOARD 1	33	L	10	64	JPL	MC	01-20148E01		OSE
D	69-26386	B	A	MODE INDICATOR BOARD 1	33	L	10	64	JPL	MC	01-21316E01		OSE
D	69-26387	D	B	MODE INDICATOR BOARD 2	33	L	10	64	JPL	MC	01-21317E01		OSE
D	69-26387	D	B	MODE INDICATOR BOARD 2	33	L	10	64	JPL	MC	01-20148		OSE
D	69-26388	D	B	MODE INDICATOR BD 3	33	L	10	64	JPL	MC	01-20148		OSE
D	69-26388	D	B	MODE INDICATOR BD 3	33	L	10	64	JPL	MC	01-21318		OSE
J	69-26390	B	B	MODE INDICATOR OVERALL	33	L	10	64	JPL	MC	01-20148E01		OSE
F	69-26402	C	B	RANGING SUBSYSTEM 2A4	33	V	12	63	MOI	MC			OSE
C	74-23436	B		FORM COIL	33	L	10	64	JPL	MC	01-20246E03		OSE
C	74-23436	B		FORM COIL	33	L	10	64	JPL	MC	01-20246E02		OSE
C	74-23436	B		FORM COIL	33	L	10	64	JPL	MC	01-20246E01		OSE
C	74-23436	B		FORM COIL	33	L	10	64	JPL	MC	01-20239E01		OSE
C	74-23436	B		FORM COIL	33	L	10	64	JPL	MC	01-20252E01		OSE
B	74-24547	B	A	FORM COIL	33	L	10	64	JPL	MC	01-20239E01		OSE
B	74-24547	B	A	FORM COIL	33	L	10	64	JPL	MC	01-20252E01		OSE
	75-23426	C		ISOLATION MOUNT	33	O			MOI	MC			OSE
J	80-20271	E	C	FLOW CHART FABRICATION	33	L	10	64	JPL	MC	01-20100E01		OSE
F	81-23512	C	A	MODULE TESTER	33	V	12	63	MOI	MC			OSE
C	84-20409	D		PCB #1 CLOCK/RESET/LINE	33	V	01	65	MOI	MC	01-20408D		OSE
C	84-20410	D		PCB #2 CLOCK/RESET/LINE	33	V	01	65	MOI	MC	01-20408D		OSE
C	84-20412	D		PCB #1 INVERTERS	33	V	12	64	MOI	MC	01-20411D		OSE
B	AW 84-20412	D		PCB #1 INVERTERS	33	V	12	64	MOI	MC	01-20411D01		OSE
C	84-20413	D		PCB #2 INVERTERS	33	V	12	64	MOI	MC	01-20411D		OSE
B	AW 84-20413	D		PCB #2 INVERTERS	33	V	12	64	MOI	MC	01-20411D01		OSE

JPL 1886 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 122 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	SYS LTR	TITLE	REQP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	EFF DEL.	REFERENCE NUMBER
C	84-20415	D		PCB #1 TWO 4 INPUT NAND	33	V	01	65	MOI	MC	01-20414D		OSE
C	84-20415	D		PCB #1 TWO 4 INPUT NAND	33	V	01	65	MOI	MC	01-20417D		OSE
C	84-20416	D		PCB #2 TWO 4 INPUT NAND	33	V	01	65	MOI	MC	01-20417D		OSE
C	84-20416	D		PCB #2 TWO 4 INPUT NAND	33	V	01	65	MOI	MC	01-20414D		OSE
	84-20418	D		PCB 1 4 INPUT GATE #HP#	33	O			MOI	MC	01-20417D		OSE
C	84-20419	D		PCB #1 LAMP/RELAY DR	33	V	01	65	MOI	MC	01-20418D		OSE
C	84-20420	D		PCB #2 LAMP/RELAY DR	33	V	01	65	MOI	MC	01-20418D		OSE
C	84-20422	D		PCB #1 9 INPUT NAND GATE	33	V	01	65	MOI	MC	01-20421D		OSE
C	84-20423	D		PCB #2 9 INPUT NAND GATE	33	V	01	65	MOI	MC	01-20421D		OSE
C	84-20429	D		PCB #1 CLOCK SHAPER	33	V	01	65	MOI	MC	01-20428D		OSE
B	AW 84-20429	D		CLOCK SHAPER/DELAY FRONT	33	V	12	64	MOI	MC	01-20428D01		OSE
C	84-20430	D		PCB #2 CLOCK SHAPER	33	V	01	65	MOI	MC	01-20428D		OSE
B	AW 84-20430	D		CLOCK SHAPER/DELAY FRONT	33	V	12	64	MOI	MC	01-20428D01		OSE
C	84-20436	D		PCB #1 TRIGGER SHAPER	33	V	01	65	MOI	MC	01-20435D		OSE
C	84-20437	D		PCB #2 TRIGGER SHAPER	33	V	01	65	MOI	MC	01-20435D		OSE
D	84-21106	D01	B	PCB CLOCK GENERATOR	33	V	12	63	MOI	MC	01-21107D01		OSE
D	84-21192	D01	A	PCB SWITCH TERMINATION	33	V	12	63	MOI	MC	01-21205D		OSE
D	84-21192	D01	A	PCB SCANNER 1A6A2	33	V	12	63	MOI	MC	01-21206D		OSE
D	84-21192	D01	A	PCB 6 STAGE BIT COUNTER	33	V	12	63	MOI	MC	01-21207D		OSE
D	84-21192	D01	A	PCB QC ERROR DETECTOR	33	V	12	63	MOI	MC	01-21208D		OSE
D	84-21192	D01	A	PCB ERROR DETECTOR	33	V	12	63	MOI	MC	01-21209D		OSE
D	84-21192	D01	A	PCB BIT ERROR DETECTOR	33	V	12	63	MOI	MC	01-21210D		OSE
D	84-21192	D01	A	PCB RECEIVED ADD REG	33	V	12	63	MOI	MC	01-21211D		OSE
D	84-21192	D01	A	PCB RECEIVED ADD DR	33	V	12	63	MOI	MC	01-21212D		OSE
D	84-21192	D01	A	PCB BIT TIME COUNTER	33	V	12	63	MOI	MC	01-21213D01		OSE
D	84-21192	D01	A	PCB TIMING GENERATION	33	V	12	63	MOI	MC	01-21214D01		OSE
D	84-21192	D01	A	PCB ADDRESS GENERATION	33	V	12	63	MOI	MC	01-21215D01		OSE
D	84-21192	D01	A	PCB DTP ISOLATION BD 1	33	V	12	63	MOI	MC	01-21217D01		OSE
D	84-21192	D01	A	PCB DTP ISOLATION BD 2	33	V	12	63	MOI	MC	01-21218D01		OSE
D	84-21192	D01	A	PCB RELAY DRIVER BD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		OSE
D	84-21192	D01	A	PCB PRINTER BUFFER	33	V	12	63	MOI	MC	01-21230D01		OSE
D	84-21192	D01	A	PCB PRINTER BUFFER	33	V	12	63	MOI	MC	01-21231D01		OSE
D	84-21192	D01	A	PCB INVERTER	33	V	12	63	MOI	MC	01-21234D01		OSE
D	84-21192	D01	A	PCB DTP ISOLATION BD 3	33	V	12	63	MOI	MC	01-21294D01		OSE
D	84-21192	D01	A	PCB RWV SELECTION	33	V	12	63	MOI	MC	01-21303D01		OSE
D	84-21199	D01	B	PCB TIMING GENERATION	33	V	12	63	MOI	MC	01-21200D01		OSE
C	84-21901	D		PCB #1 PNP LAMP/RELAY DR	33	V	01	65	MOI	MC	01-21900D		OSE
C	84-21902	D		PCB #2 PNP LAMP/RELAY DR	33	V	01	65	MOI	MC	01-21900D		OSE
C	84-21913	D		PCB #1 TP/IS TERMINATION	33	V	01	65	MOI	MC	01-21912D		OSE
C	84-21914	D		PCB #2 TP/IS TERMINATION	33	V	01	65	MOI	MC	01-21912D		OSE

JPL 1886 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 123 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	REQP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	84-21982	D02	B	PCB PHASE MODULATOR	33	V	12	63	MOI	MC	01-22000D02		OSE
D	84-21983	D03	B	PCB LOGIC LEVEL CONV	33	V	12	63	MOI	MC	01-21096D03		OSE
D	84-21984	D01	A	PCB PNP LAMP/RELAY DR	33	V	12	63	MOI	MC	01-21099D01		OSE
D	84-21984	D02	A	PCB PNP LAMP/RELAY DR	33	V	12	63	MOI	MC	01-21099D02		OSE
A	84-21997	D01		PCB 3 V	33	V	01	65	MOI	MC			OSE
A	84-21997	D02		PCB 32 VOLT PICKOFF	33	V	01	65	MOI	MC			OSE
C	84-22637	C		PCB #1 IS SWITCH	33	V	12	64	MOI	MC	01-28624A		OSE
B	AW 84-22637	C		PCB #1 IS SWITCH	33	V	12	64	MOI	MC	01-28624A01		OSE
C	84-22638	C		PCB #2 IS SWITCH	33	V	12	64	MOI	MC	01-28624A		OSE
B	AW 84-22638	C		PCB #2 IS SWITCH	33	V	12	64	MOI	MC	01-28624A01		OSE
D	84-23151	C04	A	PCB C/R/L DRIVER	33	V	12	63	MOI	MC	01-21163D04		OSE
C	84-23175	B		PCB #1 IP SWITCH	33	V	01	65	MOI	MC	01-23174B		OSE
C	84-23176	B		PCB #2 IP SWITCH	33	V	01	65	MOI	MC	01-23174B		OSE
D	84-23184	D02	A	PCB 512FS VCO 1A5A1	33	V	12	63	MOI	MC	01-21171D02		OSE
	84-23195	C01		PCB MOD SUMMING AMPL	33	V	10	63	MOI	MC	01-21177D01		OSE
D	84-23196	D01	A	PCB DIGITAL PH SHIFTER	33	V	12	63	MOI	MC	01-21172D01		OSE
D	84-23205	C01	B	PCB OSC SHAPER 1A5A10	33	V	12	63	MOI	MC	01-21179D01		OSE
D	84-23207	C01	A	PCB COMMAND MOD AMPL	33	V	12	63	MOI	MC	01-21178D01		OSE
D	84-23367	C01	A	PCB REF SELECTION	33	V	12	63	MOI	MC	01-21176D01		OSE
B	84-25292	B	B	PRINTED CIRCUIT BOARD #1	33	V	12	63	MOI	MC	01-25384		OSE
B	84-25292	B	B	PRINTED CIRCUIT BOARD #1	33	V	12	63	MOI	MC	01-25291		OSE
B	84-25293	B	B	PRINTED CIRCUIT BOARD #2	33	V	12	63	MOI	MC	01-25384		OSE
B	84-25293	B	B	PRINTED CIRCUIT BOARD #2	33	V	12	63	MOI	MC	01-25291		OSE
B	84-25345	B	B	PRINTED CIRCUIT BOARD #1	33	V	12	63	MOI	MC	01-25344		OSE
B	84-25345	B	B	PRINTED CIRCUIT BOARD #2	33	V	12	63	MOI	MC	01-25344		OSE
C	84-26384	B		PCB #1 GATED LAMP RELAY	33	L	10	64	JPL	MC	01-26383B01		OSE
C	AW 84-26384	B		GATED LAMP RELAY DRIVER	33	L	10	64	JPL	MC	01-26383B01		OSE
C	84-26385	B		PCB #2 GATED LAMP RELAY	33	L	10	64	JPL	MC	01-26383B01		OSE
C	AW 84-26385	B		GATED LAMP RELAY DRIVER	33	L	10	64	JPL	MC	01-26383B01		OSE
C	84-26418	B	A	PCB #1 LEVEL DETECTOR	33	L	10	64	JPL	MC	01-21317		OSE
C	AW 84-26418	B	A	LEVEL DETECTOR SPECIAL	33	L	10	64	JPL	MC	01-21317		OSE
C	84-26419	B	A	PCB #2 LEVEL DETECTOR	33	L	10	64	JPL	MC	01-21317		OSE
C	AW 84-26419	B	A	LEVEL DETECTOR	33	L	10	64	JPL	MC	01-21317		OSE
C	84-26422	B	A	PCB #1 LOGIC LEVEL	33	L	10	64	JPL	MC	01-21318		OSE
C	84-26422	B	A	PCB #1 LOGIC LEVEL	33	L	10	64	JPL	MC	01-26421B01		OSE
C	AW 84-26422	B	A	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC	01-26421B01		OSE
C	AW 84-26422	B	A	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC	01-21318		OSE
C	84-26423	B	A	PCB #2 LOGIC LEVEL	33	L	10	64	JPL	MC	01-21318		OSE
C	AW 84-26423	B	A	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC	01-26421B01		OSE
C	AW 84-26423	B	A	LOGIC LEVEL CONVERTER	33	L	10	64	JPL	MC	01-21318		OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 124 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	REQP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	84-26426	B	A	PCB #1 QUAD EMITTER	33	L	10	64	JPL	MC	01-21318		OSE
C	AW 84-26426	B	A	QUAD EMITTER FOLLOWER	33	L	10	64	JPL	MC	01-26425B01		OSE
C	AW 84-26426	B	A	QUAD EMITTER FOLLOWER	33	L	10	64	JPL	MC	01-21318		OSE
C	84-26427	B	A	PCB #2 QUAD EMITTER	33	L	10	64	JPL	MC	01-21318		OSE
C	AW 84-26427	B	A	QUAD EMITTER FOLLOWER	33	L	10	64	JPL	MC	01-26425B01		OSE
C	AW 84-26427	B	A	QUAD EMITTER FOLLOWER	33	L	10	64	JPL	MC	01-21318		OSE
C	84-27346	A	C	PCB #1 DUAL 3 INPUT GATE	33	V	01	65	MOI	MC	01-27345A01		OSE
C	84-27347	A	C	PCB #2 DUAL 3 INPUT GATE	33	V	01	65	MOI	MC	01-27345A01		OSE
C	84-27697	A		PCB #1 8 INPUT NAND GATE	33	V	01	65	MOI	MC	01-27696A		OSE
C	84-27698	A		PCB #2 8 INPUT NAND GATE	33	V	01	65	MOI	MC	01-27696A		OSE
C	84-27720	A		PCB #1 PRINTER BUFFER	33	V	01	65	MOI	MC	01-20439D		OSE
C	84-27721	A		PCB #2 PRINTER BUFFER	33	V	01	65	MOI	MC	01-20439D		OSE
C	84-27771	A		PCB #1 JKT FLIP FLOP	33	V	01	65	MOI	MC	01-27770A		OSE
C	84-27772	A		PCB #2 JKT FLIP FLOP	33	V	01	65	MOI	MC	01-27770A		OSE
C	84-27775	A		PCB #1 2 PARALLELED 4	33	V	01	65	MOI	MC	01-27774A		OSE
C	84-27776	A		PCB #2 2 PARALLELED 4	33	V	01	65	MOI	MC	01-27774A		OSE
C	84-27778	A		PCB #1 TWO 3 INPUT NAND	33	V	01	65	MOI	MC	01-27777A		OSE
C	84-27779	A		PCB #2 TWO 3 INPUT NAND	33	V	01	65	MOI	MC	01-27777A		OSE
C	84-28625	A		PCB #2 IP SWITCH	33	V	12	64	MOI	MC	01-28626A01		OSE
C	84-28631	A		PCB #1 LOW BAND LINE	33	V	01	65	MOI	MC	01-28630A		OSE
C	84-28632	A		PCB #2 LOW BAND LINE DRI	33	V	01	65	MOI	MC	01-28630A		OSE
C	84-28634	A		PCB #1 IP SWITCH	33	V	12	64	MOI	MC	01-28626A01		OSE
C	AW 84-28634	A		DUAL IP SWITCH FRONT	33	V	12	64	MOI	MC	01-28626A01		OSE
C	AW 84-28635	A		DUAL IP SWITCH FRONT	33	V	12	64	MOI	MC	01-28626A01		OSE
C	84-28639	A		PCB #1 TERMINATION	33	V	01	65	MOI	MC	01-28638A		OSE
C	84-28640	A		PCB #2 TERMINATION	33	V	01	65	MOI	MC	01-28638A		OSE
D	84-29125	C01	C	PCB BINARY-OCT-MATRIX	33	V	12	63	MOI	MC	01-21104D01		OSE
D	84-29125	C02	C	PCB BINARY-OCT MATRIX	33	V	12	63	MOI	MC	01-21104D04		OSE
D	84-29125	C03	C	PCB BINARY-OCTAL MATRIX	33	V	12	63	MOI	MC	01-21104D03		OSE
D	84-29125	C06	C	PCB BI-TO-OCTAL MATRIX	33	V	12	63	MOI	MC	01-21104D06		OSE
D	84-29126	C01	B	PCB SHIFT REGISTER	33	V	12	63	MOI	MC	01-21174D01		OSE
D	84-29126	C05	B	PCB SHIFT REGISTER	33	V	12	63	MOI	MC	01-21174D05		OSE
D	84-29127	C01	C	PCB BINARY COUNTER	33	V	12	63	MOI	MC	01-21101D01		OSE
D	84-29127	C03	C	PCB ASYNCHRONOUS 1A5A3	33	V	12	63	MOI	MC	01-21101D03		OSE
D	84-29128	C02	B	PCB ADDRESS COMPARITOR	33	V	12	63	MOI	MC	01-21104D02		OSE
A	90-21252	DWL		BENCH TEST JIG UNIT 4	33	V	01	65	MOI	MC			OSE
A	90-21253	WL	D	DETECTOR TESTER 1145	33	V	03	65	MOI	MC			OSE
A	90-21254	WL	D	MONITOR BAY 1A6	33	V	03	65	MOI	MC			OSE
A	90-21255	DWL		PROGRAMMER BAY 1A7	33	V	01	65	MOI	MC			OSE
A	90-21256	D		BAY POWER SUPPLY	33	V	01	65	MOI	MC			OSE

JPL 1888 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 125 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	TYPE STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
A	90-21257	DWL		TEST POINT SELECTOR 2A4	33	V	01	65	MOI	MC			OSE
A	90-21258	WL	D	OSE CONTROL PANEL 1A12	33	V	03	65	MOI	MC			OSE
A	90-21259	DWL		RELAY ASSEMBLY	33	V	01	65	MOI	MC			OSE
A	90-21262	DWL		EXTERNAL CABLE W5	33	V	01	65	MOI	MC			OSE
A	90-21269	DWL		DETECTOR TESTER	33	V	01	65	MOI	MC			OSE
WL	90-21272	D		WIRE LIST F/E TEST DWR	33	0			MOI	MC	01-21147D01		OSE
WL	90-21278	D		WIRE LIST DC POWER DISTR	33	0			MOI	MC	01-21139D01		OSE
A	90-21291	DWL		TRANSFORMER SUBASSEMBLY	33	V	01	65	MOI	MC			OSE
A	90-21306	WL		DATA LOGGER WIRE LISTS	33	V	03	65	MOI	MC			OSE
B	20-151195		A	BUCKLE STRAP	33	V	05	64	PHIL	MC	39-151204		OSE
B	20-151198			PLATE GROUND RF PROBE	33	V	05	64	PHIL	MC	39-151204		OSE
B	20-151206			BRKT MOUNTING RF PROBE	33	V	05	64	PHIL	MC	39-151204		OSE
B	21-151196			PLUG RF PROBE	33	V	05	64	PHIL	MC	39-151204		OSE
B	21-151201		A	STRAP RUBBER	33	V	05	64	PHIL	MC	39-151204		OSE
B	22-151203		A	LABEL WARNING	33	V	05	64	PHIL	MC	39-151204		OSE
B	25-151199		A	CLIP REMOVABLE	33	V	05	64	PHIL	MC	39-151204		OSE
B	25-151200		A	CLIP FIXED	33	V	05	64	PHIL	MC	39-151204		OSE
B	39-151204		B	PROBE RF ASSEMBLY OF	33	V	05	64	PHIL	MC	77-151208		OSE
D	77-151208		B	PROBE ANTENNA INSTL	33	V	05	64	PHIL	MC	4600542		OSE
B	87-151221		B	CABLE ASSY RF PROBE	33	V	05	64	PHIL	MC	77-151208		OSE
A	90-21257	DWL		TEST POINT SELECTOR 2A4	33	V	01	65	MOI	MC			OSE
D	106448		B	PANEL FRONT MAIN POWER	32	V	01	64	SEC	MC			OSE
D	106552		A	PANEL ASSY MAIN POWER	32	V	01	64	SEC	MC			OSE
A	F-14			ALUMINUM ETCH SATIN	33	V	01	65	TIN	MC			OSE
A	F-16			PASSIVATION STAINLESS ST	33	V	02	64	TIN	MC			OSE
A	C F-21			CHEMICAL FILMS FOR ALUM	33	V	10	64	TIN	MC			OSE
A	F-35			ELECTROLESS TIN PLATE	33	V	03	64	TIN	MC			OSE
A	F-39			GOLD PLATE	33	V	02	64	TIN	MC			OSE

JPL 1500 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 126 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	TYPE STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	REFERENCE NUMBER
A	F-42			NICKEL PLATE	33	V	02	64	TIN	MC			OSE
A	F-46			CADMIUM PLATE	33	V	02	64	TIN	MC			OSE
A	SPEC F-53			ZINC CHROMATE PRIMER	33	V	10	64	TIN	MC			OSE
A	F-55			ENAMEL BLACK	33	V	02	64	TIN	MC			OSE
A	SPEC F-68			ENAMEL SYNTHETIC	33	V	10	64	TIN	MC			OSE
A	F-100			MARKING SYMBOLIZING	33	V	02	64	TIN	MC			OSE
A	SPEC F-110			PRESERVATION OF METALS	33	V	10	64	TIN	MC			OSE
A	F-122			ROLLER COATING SOLDER	33	V	02	64	TIN	MC			OSE
A	44697		C	WASHER SHOULDERED	33	V	02	64	TIN	MC	495950		OSE
A	44697		C	WASHER SHOULDERED	33	V	02	64	TIN	MC	495949		OSE
A	44697		C	WASHER SHOULDERED	33	V	02	64	TIN	MC	495948		OSE
A	49612		F	WIRE ELECTRICAL	33	V	02	64	TIN	MC			OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	53970		OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	450205		OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	443706		OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	444809		OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	459186		OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	53966		OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	54548		OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	53973		OSE
B	53864		D	CAPACITOR ELECTROLYTICS	33	V	01	65	TIN	MC	53971		OSE
A	56557		K	SPACER SLEEVE ETCHED BD	33	V	02	64	TIN	MC	495953		OSE
A	59056		H	EYLET ROLLED FLANGE	33	V	10	64	TIN	MC			OSE
A	410018		H	PLASTIC SHEET LAMINATED	33	V	03	64	TIN	MC			OSE
A	410596			SEMICONDUCTOR DEVICE	33	V	02	64	TIN	MC	459155		OSE
A	410596			SEMICONDUCTOR DEVICE	33	V	02	64	TIN	MC	459182		OSE
A	410596			SEMICONDUCTOR DEVICE	33	V	02	64	TIN	MC	459165		OSE
A	410596			SEMICONDUCTOR DEVICE	33	V	02	64	TIN	MC	459151		OSE
A	410660		C	CAPACITOR FIXED MICA	33	V	02	64	TIN	MC			OSE
A	410691		E	WIRE ELECTRICAL	33	V	02	64	TIN	MC			OSE
A	410815		E	NUT PLAIN CLINCH	33	V	02	64	TIN	MC			OSE
A	410816		E	NUT PLAIN CLINCH	33	V	02	64	TIN	MC			OSE
A	410863		B	SCREW MACHINE-PAN HEAD	33	V	02	64	TIN	MC			OSE
A	410903		B	WASHER LOCK SPLIT LIGHT	33	V	02	64	TIN	MC			OSE
A	410908		A	WASHER FLAT LIGHT SERIES	33	V	02	64	TIN	MC			OSE
A	410924		C	SCREW MACHINE-FLAT	33	V	02	64	TIN	MC			OSE
A	410950		A	WASHER FLAT-GENERAL	33	V	02	64	TIN	MC			OSE
A	410972			NUT PLAIN HEX LIGHT FINE	33	V	02	64	TIN	MC			OSE
A	411000			WASHER NONMETALLIC PAPER	33	V	02	64	TIN	MC			OSE
A	411027			WASHERS FLAT METAL ROUND	33	V	10	64	TIN	MC			OSE

JPL 1500 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 127 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
A	411081			SCREW MACHINE PAN HEAD	33	V	10	64	TIN	MC			OSE
A	411091			SCREW MACHINE FLAT	33	V	10	64	TIN	MC			OSE
A	411140		D	SOLDER LEAD-TIN ALLOY	33	V	02	64	TIN	MC			OSE
A	411143		B	BRAID TEXTILE	33	V	03	64	TIN	MC			OSE
A	411271			CABLE SPECIAL PURPOSE EL	33	V	02	64	TIN	MC			OSE
A	411329		F	PLASTIC SHEET LAMINATED	33	V	02	64	TIN	MC			OSE
A	411336			RESISTORS FIXED	33	V	10	64	TIN	MC			OSE
A	411402		C	WIRE ELECTRICAL	33	V	10	64	TIN	MC			OSE
A	411634		K	INSULATION SLEEVING ELEC	33	V	02	64	TIN	MC			OSE
A	411656		B	CAPACITOR FIXED ELECT	33	V	02	64	TIN	MC	459162		OSE
A	411656		B	CAPACITOR FIXED ELECT	33	V	02	64	TIN	MC	461004		OSE
A	411656		B	CAPACITOR FIXED ELECT	33	V	02	64	TIN	MC	461007		OSE
A	411656		B	CAPACITOR FIXED ELECT	33	V	02	64	TIN	MC	459155		OSE
A	411743		A	CAPACITOR FIXED ELECT	33	V	02	64	TIN	MC			OSE
A	412122			LACQUER CLEAR	33	V	02	64	TIN	MC			OSE
A	412434		A	CABLE SPECIAL PURPOSE	33	V	02	64	TIN	MC			OSE
A	412492		B	AL ALLOY SHEET ANODIZED	33	V	02	64	TIN	MC			OSE
A	412736		A	COIL RADIO FREQUENCY	33	V	10	64	TIN	MC			OSE
A	412742			CAPACITOR FIXED	33	V	10	64	TIN	MC			OSE
A	412794			EYELET METALLIC FLARED	33	V	02	64	TIN	MC			OSE
A	413275		A	GUIDE PCB	33	V	02	64	TIN	MC			OSE
A	413276		B	SPACER PCB GUIDE	33	V	02	64	TIN	MC			OSE
A	413277		A	EJECTOR PCB	33	V	02	64	TIN	MC			OSE
A	413318			TRANSISTOR TYPE 2N711	33	V	02	64	TIN	MC			OSE
A	414742			TERMINAL STUD HOLLOW	33	V	02	64	TIN	MC			OSE
A	415028	CD	E	STEEL SHEET	33	V	03	64	TIN	MC			OSE
A	415104	CD	A	AL ALLOY BAR HEX 2024	33	V	03	64	TIN	MC			OSE
A	415136		B	ALUMINUM ALLOY SHEET	33	V	10	64	TIN	MC			OSE
A	415498		A	PLASTIC SHEET LAMINATED	33	V	02	64	TIN	MC			OSE
A	415573		A	SEALING COMPOUND SCREW	33	V	02	64	TIN	MC			OSE
A	416754		A	RESISTOR FIXED COMPOSIT	33	V	10	64	TIN	MC			OSE
C	445321		F	PANEL BLANK	33	V	02	64	TIN	MC	492399		OSE
C	445321		F	PANEL BLANK	33	V	02	64	TIN	MC	492400		OSE
B	445492			METER HORIZONTAL MOUNT	33	V	01	65	TIN	MC	446363		OSE
C	446312			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459180		OSE
C	446315			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459186		OSE
B	446323			HEATSINK MOD	33	V	01	65	TIN	MC	459186		OSE
C	446333			PCB MONOSTABLE	33	V	01	65	TIN	MC	446334		OSE
C	446334			MONOSTABLE MULTIVIBRATOR	33	V	01	65	TIN	MC	446363		OSE
C	446337			PCB INVERTER AMPL	33	V	01	65	TIN	MC	446338		OSE

JPL 1300 JUN 62

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 128 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
C	446337		B	PCB INV AMPLIFIER	33	V	01	65	TIN	MC	446338		OSE
C	446338		B	AMPLIFIER INVERTER	33	V	01	65	TIN	MC	446363		OSE
C	446339			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	446338-1		OSE
D	446347		A	DIAGRAM ELEC SCHEMATIC	33	V	01	65	TIN	MC	459158-1		OSE
C	446368		B	PCB UNIVERSAL FLIP FLOP	33	V	01	65	TIN	MC	446369		OSE
C	446368			PCB UNIVERSAL FLIP FLOP	33	V	01	65	TIN	MC	446369		OSE
C	446369		D	UNIVERSAL FLIP FLOP	33	V	01	65	TIN	MC	446363		OSE
C	446370		A	DIAG ELECT SCHEM	33	V	01	65	TIN	MC	446369		OSE
C	457735			TTANSFORMER AUDIO	33	V	02	64	TIN	MC	492403		OSE
C	459157			PCB LEVEL DETECTOR	33	V	01	65	TIN	MC	459158		OSE
C	459157		B	PCB LEVEL DETECTOR	33	V	01	65	TIN	MC	459158		OSE
C	459158		C	DETECTOR LEVEL	33	V	01	65	TIN	MC	446363		OSE
C	459161			PCB A C & SYNC	33	V	01	65	TIN	MC	461007		OSE
C	459161			PCB A C & SYNC	33	V	01	65	TIN	MC	461004		OSE
C	459161			PCB A C & SYNC	33	V	01	65	TIN	MC	459162		OSE
D	459162		A	FILTER BAND PASS A	33	V	01	65	TIN	MC	446363-1		OSE
D	459163		A	DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459162-1		OSE
D	459163		A	DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459162-2		OSE
D	459163		A	DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459162-3		OSE
D	459163		A	DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459162-4		OSE
D	459163		A	DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459162-5		OSE
D	459163		A	DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459162-6		OSE
C	459178			RECTIFIER FILTER	33	V	01	65	TIN	MC	446363		OSE
C	459179			PCB RECTIFIER & FILTER	33	V	01	65	TIN	MC	459180-1		OSE
C	459180			RECTIFIER & FILTER	33	V	01	65	TIN	MC	446363		OSE
C	459185			PCB REGULATOR VOLT	33	V	01	65	TIN	MC	459186		OSE
D	459186		B	REG VOLT PLUS & MINUS	33	V	01	65	TIN	MC	446363-U		OSE
C	459188			PCB LAMP DRIVER	33	V	01	65	TIN	MC	459189		OSE
C	459189		B	DRIVER LAMP	33	V	01	65	TIN	MC	446363		OSE
C	459190			DIAGRAM ELECTRONIC SCHEM	33	V	01	65	TIN	MC	459189		OSE
D	461004		A	FILTER BAND PASS	33	V	01	65	TIN	MC	446363		OSE
D	461004		A	FILTER BAND PASS CAND	33	V	01	65	TIN	MC			OSE
D	461005		B	DIAGRAM ELECTRONIC	33	V	01	65	TIN	MC	461004		OSE
C	462691			TERMINAL BD JUNCTION BOX	33	V	02	64	TIN	MC	495951		OSE
D	473000			PCB RS FLIP-FLOP	33	V	02	64	TIN	MC			OSE
D	473001			R-S FLIP-FLOP	33	V	02	64	TIN	MC	492456		OSE
D	473001			R-S FLIP-FLOP	33	V	02	64	TIN	MC	492455		OSE
D	473001			R-S FLIP-FLOP	33	V	02	64	TIN	MC	492454		OSE
D	473001			R-S FLIP-FLOP	33	V	02	64	TIN	MC	492453		OSE
C	473002			DIAG ELECT SCHEM R-S F/F	33	V	02	64	TIN	MC			OSE

JPL 1300 JUN 62

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 129 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	RESP. ON	NEXT ASSEMBLY	QTY COL	REQUIREMENT NUMBER
D	473006			PCB CIRCUIT DRIVER	33	V	02	64	TIN	MC			OSE
D	473007			CIRCUIT DRIVER	33	V	02	64	TIN	MC	492456		OSE
D	473007			CIRCUIT DRIVER	33	V	02	64	TIN	MC	492454		OSE
D	473007			CIRCUIT DRIVER	33	V	02	64	TIN	MC	492453		OSE
C	473008			DIAG ELECT SCHEM CKT DR	33	V	02	64	TIN	MC			OSE
D	473009			PCB LAMP & RELAY DRIVER	33	V	02	64	TIN	MC			OSE
D	473010			LAMP AND RELAY DRIVER	33	V	02	64	TIN	MC	492456		OSE
D	473010			LAMP AND RELAY DRIVER	33	V	02	64	TIN	MC	492455		OSE
D	473010			LAMP AND RELAY DRIVER	33	V	02	64	TIN	MC	492454		OSE
D	473010			LAMP AND RELAY DRIVER	33	V	02	64	TIN	MC	492453		OSE
C	473011			DIAGRAM ELECT SCHEM	33	V	02	64	TIN	MC			OSE
D	473012			PCB CLOCK PULSE GENERATR	33	V	02	64	TIN	MC			OSE
D	473013			CLOCK PULSE GENERATOR	33	V	02	64	TIN	MC	492455		OSE
D	473013			CLOCK PULSE GENERATOR	33	V	02	64	TIN	MC	492453		OSE
C	473014			DIAG ELECT SCHEM	33	V	02	64	TIN	MC			OSE
D	473015			PCB 2 INPUT NOR GATE	33	V	02	64	TIN	MC			OSE
D	473016			2 INPUT NOR GATE	33	V	02	64	TIN	MC	492456		OSE
D	473016			2 INPUT NOR GATE	33	V	02	64	TIN	MC	492454		OSE
D	473016			2 INPUT NOR GATE	33	V	02	64	TIN	MC	492453		OSE
C	473017			DIAG ELECT SCHEM	33	V	02	64	TIN	MC			OSE
D	473018			PCB 4 INPUT NOR GATE	33	V	02	64	TIN	MC			OSE
D	473019			4 INPUT NOR GATE	33	V	02	64	TIN	MC	492456		OSE
D	473019			4 INPUT NOR GATE	33	V	02	64	TIN	MC	492454		OSE
D	473019			4 INPUT NOR GATE	33	V	02	64	TIN	MC	492453		OSE
C	473020			DIAG ELECT SCHEM	33	V	02	64	TIN	MC			OSE
D	473022			PCB MONOSTABLE MVB	33	V	02	64	TIN	MC			OSE
D	473023			MONOSTABLE MULTIVIBRATOR	33	V	02	64	TIN	MC	492456		OSE
C	473024			DIAG ELECT SCHEM	33	V	02	64	TIN	MC			OSE
A	473025			SPECIFICATION PCB	33	V	02	64	TIN	MC	473647		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	473001		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	473007		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	473010		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	473013		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	473016		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	473019		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	473034		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	473038		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	492026		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	492433		OSE
A	473027			MOUNT TRANSISTOR	33	V	02	64	TIN	MC	492403		OSE

JPL 1500 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 130 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	RESP. ON	NEXT ASSEMBLY	QTY COL	REQUIREMENT NUMBER
D	473033			PCB 2 INPUT NAND GATE	33	V	02	64	TIN	MC			OSE
D	473034			2 INPUT NAND GATE	33	V	02	64	TIN	MC	492456		OSE
D	473034			2 INPUT NAND GATE	33	V	02	64	TIN	MC	492454		OSE
D	473034			2 INPUT NAND GATE	33	V	02	64	TIN	MC	492453		OSE
D	473035			ELECT SCHEM 2 INPUT NAND	33	V	02	64	TIN	MC			OSE
D	473037			PCB 5 INPUT NAND GATE	33	V	02	64	TIN	MC			OSE
D	473038			5 INPUT NAND GATE	33	V	02	64	TIN	MC	492454		OSE
D	473038			5 INPUT NAND GATE	33	V	02	64	TIN	MC	492453		OSE
C	473039			DIAG ELECT SCHEM	33	V	02	64	TIN	MC			OSE
D	473045			PCB BCD TO DECIMAL CONV	33	V	02	64	TIN	MC			OSE
D	473046		C	BCD TO DECIMAL CONVERTER	33	V	02	64	TIN	MC	492456		OSE
D	473047			DIAG ELECT SCHEM	33	V	02	64	TIN	MC			OSE
D	473073			OSCILLATOR VOLT CONT	33	V	01	65	TIN	MC	489652-1		OSE
D	473073			OSCILLATOR VOLT CONT	33	V	01	65	TIN	MC	489652-2		OSE
D	473073			OSCILLATOR VOLT CONT	33	V	01	65	TIN	MC	489666-1		OSE
D	473074			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	473073-1		OSE
D	473083			LOOP FILTER CONSTANTS	33	V	01	65	TIN	MC	489652-1		OSE
D	473083			LOOP FILTER CONSTANTS	33	V	01	65	TIN	MC	489652-2		OSE
D	473083			LOOP FILTER CONSTANTS	33	V	01	65	TIN	MC	489666-1		OSE
D	473084			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	473083-1		OSE
D	473090			PHASE DETECTOR	33	V	01	65	TIN	MC	489651-1		OSE
D	473090			PHASE DETECTOR	33	V	01	65	TIN	MC	489652-1		OSE
D	473090			PHASE DETECTOR	33	V	01	65	TIN	MC	489652-2		OSE
D	473090			PHASE DETECTOR	33	V	01	65	TIN	MC	489666-1		OSE
D	473091			DIAG ELEC SCHEMATIC PHAS	33	V	01	65	TIN	MC	473090-1		OSE
D	473097			OPERATIONAL AMPLIFIER	33	V	01	65	TIN	MC	489652-1		OSE
D	473097			OPERATIONAL AMPLIFIER	33	V	01	65	TIN	MC	489652-2		OSE
D	473097			OPERATIONAL AMPLIFIER	33	V	01	65	TIN	MC	489666-1		OSE
B	473098			DIAGRAM ELEC SCHEMATIC	33	V	01	65	TIN	MC	473097-1		OSE
D	473101			LEVEL SWITCH	33	V	01	65	TIN	MC	489652-2		OSE
D	473101			LEVEL SWITCH	33	V	01	65	TIN	MC	489661-1		OSE
D	473102			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	473101-1		OSE
D	473123			THRESHOLD ADJ FILTER	33	V	01	65	TIN	MC	489652-1		OSE
D	473123			THRESHOLD ADJ FILTER	33	V	01	65	TIN	MC	489652-2		OSE
D	473123			THRESHOLD ADJ FILTER	33	V	01	65	TIN	MC	489666-1		OSE
C	473124			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	473123-1		OSE
D	473127			DATA MATCHED FILTER	33	V	01	65	TIN	MC	489652-1		OSE
D	473127			DATA MATCHED FILTER	33	V	01	65	TIN	MC	489652-2		OSE
D	473127			DATA MATCHED FILTER	33	V	01	65	TIN	MC	489666-1		OSE

JPL 1500 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 131 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	473128			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	473127-1		OSE
D	473131			SYNC MATCHED FILTER	33	V	01	65	TIN	MC	489666-1		OSE
D	473132			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	473131-1		OSE
D	473136			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473137			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC			OSE
D	473140			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	473140			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	473141			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC			OSE
D	473144			LEVEL CHANGING INVERTER	33	V	01	65	TIN	MC	489652-1		OSE
D	473144			LEVEL CHANGING INVERTER	33	V	01	65	TIN	MC	489652-2		OSE
D	473144			LEVEL CHANGING INVERTER	33	V	01	65	TIN	MC	489651-1		OSE
C	473145			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	473144-1		OSE
D	473151			PCB LIMITER AMPL	33	V	02	64	TIN	MC			OSE
D	473152		A	LIMITER AMPL	33	V	01	65	TIN	MC	489651-1		OSE
D	473152		A	LIMITER AMPL	33	V	01	65	TIN	MC	489652-1		OSE
D	473152		A	LIMITER AMPL	33	V	01	65	TIN	MC	489652-2		OSE
D	473152		A	LIMITER AMPL	33	V	01	65	TIN	MC	492456-1		OSE
D	473153			DIAGRAM ELECT SCHEMATIC	33	V	02	64	TIN	MC			OSE
A	473154			MARKING LIMITER AMPL	33	V	02	64	TIN	MC			OSE
D	473157			AMPL VARIABLE GAIN	33	V	01	65	TIN	MC	489652-1		OSE
D	473157			AMPL VARIABLE GAIN	33	V	01	65	TIN	MC	489652-2		OSE
C	473158			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	473157-1		OSE
B	473168			SPACER THREADED INTERNAL	33	V	02	64	TIN	MC	492453		OSE
B	473168			SPACER THREADED INTERNAL	33	V	02	64	TIN	MC	492455		OSE
B	473168			SPACER THREADED INTERNAL	33	V	02	64	TIN	MC	492454		OSE
B	473168			SPACER THREADED INTERNAL	33	V	02	64	TIN	MC	492456		OSE
B	473171			BRACKET TRACK MOUNTING	33	V	02	64	TIN	MC	492399		OSE
B	473172			SPACER CABLE RETRACTOR	33	V	02	64	TIN	MC	492399		OSE
B	473173			SPACER WEDGE CBL RETRACT	33	V	02	64	TIN	MC	492399		OSE
D	473195			PCB LOGIC LEVEL CONVERTR	33	V	02	64	TIN	MC			OSE
D	473196			LOGIC LEVEL CONVERTER	33	V	02	64	TIN	MC	492455		OSE
C	473197			DIAG ELECT SCHEM	33	V	02	64	TIN	MC			OSE
A	473198			MARKING LOGIC LEVEL CONV	33	V	02	64	TIN	MC			OSE
B	473258			PAD TRACK MOUNTING	33	V	02	64	TIN	MC	492453		OSE
B	473258			PAD TRACK MOUNTING	33	V	02	64	TIN	MC	492456		OSE
B	473258			PAD TRACK MOUNTING	33	V	02	64	TIN	MC	492454		OSE
D	473272			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473275			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473278			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473281			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 132 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	473284			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473287			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473287			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473290			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473293			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473296			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	473639			PCB 0-100 MV SIMULATOR	33	V	02	64	TIN	MC			OSE
D	473640			SIMULATOR 0-100 MV	33	V	02	64	TIN	MC	492455		OSE
C	473641			DIAGRAM ELECT SCHEM	33	V	02	64	TIN	MC			OSE
A	473642			MARKING 0-100 MV SIM	33	V	02	64	TIN	MC			OSE
D	473643			PCB 1.5 VOLT SIMULATOR	33	V	02	64	TIN	MC			OSE
D	473644		A	SIMULATOR 1.5 VOLT	33	V	02	64	TIN	MC	492455		OSE
C	473645			DIAGRAM ELECT SCHEM	33	V	02	64	TIN	MC			OSE
A	473646			MARKING 1.5 VOLT SIM	33	V	02	64	TIN	MC			OSE
D	473647			PCB 0-3 VOLT SIMULATOR	33	V	02	64	TIN	MC			OSE
D	473648			SIMULATOR 0-3 VOLT	33	V	02	64	TIN	MC	492455		OSE
C	473649			DIAGRAM ELECT SCHEM	33	V	02	64	TIN	MC			OSE
A	473650			MARKING 0-3 VOLT SIM	33	V	02	64	TIN	MC			OSE
B	473691			BRACKET STRIKER	33	V	02	64	TIN	MC	492399		OSE
B	473692			SUPP CHASS TERMINAL BD	33	V	02	64	TIN	MC	492455		OSE
B	473693			PIN STRAIGHT HEADLESS	33	V	02	64	TIN	MC	492455		OSE
C	479858			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	479858		OSE
C	479858			DIAG ELECT SH	33	V	01	65	TIN	MC			OSE
D	479859			PCB MC DEMODULATOR	33	V	01	65	TIN	MC			OSE
D	479860			MC DEMODULATOR	33	V	01	65	TIN	MC			OSE
C	479861			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	479863		OSE
D	479862			PCB BAND PASS FIL	33	V	01	65	TIN	MC			OSE
D	479863			BANDPASS FILTER B #1	33	V	01	65	TIN	MC			OSE
B	479864			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	479865			PCB MARINER C DEMODULAT	33	V	01	65	TIN	MC			OSE
D	479866			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	479868			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	479869			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
C	479870			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC			OSE
D	479871			PCB DIFFERENTIATING	33	V	01	65	TIN	MC			OSE
D	479872			DIFFERENTIATING NETWORK	33	V	01	65	TIN	MC			OSE
D	479873			DIAGRAM ELEC SCHEMATIC	33	V	01	65	TIN	MC			OSE
D	479874			PCB 2 INPUT GATE	33	V	01	65	TIN	MC			OSE
D	479875			2 INPUT & GATE	33	V	01	65	TIN	MC			OSE
D	479876			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC			OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 133 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DRAW NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	479877			PCB 7 INPUT & GATE	33	V	01	65	TIN	MC			OSE
D	479878			7 INPUT GATE	33	V	01	65	TIN	MC			OSE
C	479879			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
C	486083			RACK OPERATIONAL EQUIP	33	V	02	64	TIN	MC	492399		OSE
D	486429			VCO METER CIRCUIT	33	V	01	65	TIN	MC	489666-1		OSE
D	486430			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	486429-1		OSE
D	486449			PCB 5 MS IP SWITCH	33	V	02	64	TIN	MC			OSE
D	486450			5 MILLISECOND IP SWITCH	33	V	02	64	TIN	MC	492456		OSE
D	486450			5 MILLISECOND IP SWITCH	33	V	02	64	TIN	MC	492455		OSE
C	486451			DIAG ELECT SCHEM	33	V	02	64	TIN	MC			OSE
A	486452			MARKING 5 MS IP SWITCH	33	V	02	64	TIN	MC			OSE
D	486457			CRYSTAL CONTROLLED OSC	33	V	01	65	TIN	MC	489666-1		OSE
C	486458			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC	486457-1		OSE
D	486461			METER ADJUST	33	V	01	65	TIN	MC	489652-1		OSE
D	486461			METER ADJUST	33	V	01	65	TIN	MC	489652-2		OSE
D	486461			METER ADJUST	33	V	01	65	TIN	MC	489666-1		OSE
C	486462			DIAGRAM ELEC SCHEMATIC	33	V	01	65	TIN	MC	486461-1		OSE
D	486465			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486465			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486468			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486468			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486471			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486471			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486474			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486474			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486477			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486477			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486480			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486480			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486483			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486483			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486491			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486491			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486494			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	486494			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	486497			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
C	486497			RC ACTIVE LOW PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489517			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489520			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489523			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 134 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DRAW NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	489526			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489529			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489532			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489535			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489538			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489541			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489544			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489547			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489550			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489553			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489556			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489559			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489562			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489565			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489568			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489571			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489574			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489577			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489580			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489583			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489651-1		OSE
D	489586			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489586			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489589			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489589			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489592			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489592			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489595			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489595			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489598			#Q# MULTIPLIER BAND	33	V	01	65	TIN	MC	489652-1		OSE
D	489598			#Q# MULTIPLIER BAND	33	V	01	65	TIN	MC	489652-2		OSE
D	489601			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489601			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489604			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489604			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489607			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489607			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489610			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489610			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
D	489613			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489613			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 135 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	489616			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-1		OSE
D	489616			#Q# MULT BAND PASS FIL	33	V	01	65	TIN	MC	489652-2		OSE
B	489748			MARKING RACK PURCHASED	33	V	02	64	TIN	MC	492399		OSE
J	492399			MC OPERATIONAL SUPP EQUP	33	V	02	64	TIN	MC	492400		OSE
B	492400			MC OPERATIONAL SUP EQUIP	33	V	02	64	TIN	MC			OSE
D	492401			DIAG ELECT SCHEM ISO	33	V	02	64	TIN	MC	492403		OSE
D	492402			PCB ISOLATION AMPLIFIER	33	V	02	64	TIN	MC	492403		OSE
D	492403			ISOLATION AMPLIFIER	33	V	02	64	TIN	MC	492456		OSE
A	492404			MARKING ISOLATION AMPL	33	V	02	64	TIN	MC	492402		OSE
D	492405			PNL FRONT CONTROL & MON	33	V	02	64	TIN	MC	492407		OSE
E	492406			MARKING CONTROL & MON	33	V	02	64	TIN	MC	492405		OSE
D	492407			PNL ASSY CONTROL & MON	33	V	02	64	TIN	MC	492456		OSE
C	492408			DIAG EL SCHEM PASSIVE	33	V	02	64	TIN	MC	492410		OSE
D	492409			PCB PASSIVE NETWORK	33	V	02	64	TIN	MC	492410		OSE
D	492410			PASIVE NETWORK	33	V	02	64	TIN	MC	492456		OSE
A	492411			MARKING PASSIVE NETWORK	33	V	02	64	TIN	MC	492409		OSE
D	492412			DIAG ELECT SCHEM	33	V	02	64	TIN	MC	492414		OSE
D	492413			PCB ISOLATION CKT 1	33	V	02	64	TIN	MC	492414		OSE
D	492414			ISOLATION CIRCUIT #1	33	V	02	64	TIN	MC	492456		OSE
A	492415			MARKING ISOLATION CKT 1	33	V	02	64	TIN	MC	492413		OSE
C	492420			DIAGRAM ELECT SCHEMATIC	33	V	02	64	TIN	MC	492422		OSE
D	492421			PCB ENCODER PWR-ON CKT	33	V	02	64	TIN	MC	492422		OSE
D	492422			ENCODER POWER-ON CIRCUIT	33	V	02	64	TIN	MC	492456		OSE
A	492423			MARKING ENCODER PWR-ON	33	V	02	64	TIN	MC	492421		OSE
C	492424			DIAGRAM ELECT SCHEMATIC	33	V	02	64	TIN	MC	492426		OSE
D	492425			PCB EVENT SIMULATOR	33	V	02	64	TIN	MC	492426		OSE
D	492426			EVENT SIMULATOR	33	V	02	64	TIN	MC	492455		OSE
A	492427			MARKING EVENT SIMULATOR	33	V	02	64	TIN	MC	492425		OSE
D	492428			PNL FRONT DISPLAY #2 1A2	33	V	02	64	TIN	MC	492430		OSE
E	492429			MARKING DISPLAY #2 1A2	33	V	02	64	TIN	MC	492428		OSE
D	492430			DISPLAY #2 PANEL 1A2	33	V	02	64	TIN	MC	492454		OSE
D	492431			DIAG ELECT SCHEM	33	V	02	64	TIN	MC	492433		OSE
D	492432			PCB SIGNAL LEVEL CONVERT	33	V	02	64	TIN	MC	492433		OSE
D	492433			SIGNAL LEVEL CONVERTER	33	V	02	64	TIN	MC	492455		OSE
A	492434			MARKING SIG LEVEL CONV	33	V	02	64	TIN	MC	492432		OSE
D	492435			PNL FRONT CONSOLE PWR	33	V	02	64	TIN	MC	492436		OSE
D	492436			CONSOLE PWR PNL ASY 1A7	33	V	02	64	TIN	MC	492457		OSE
D	492438			PNL FRONT DISPLAY #1 1A1	33	V	02	64	TIN	MC	492440		OSE
E	492439			MARKING DISPLAY #1 PNL	33	V	02	64	TIN	MC	492438		OSE
D	492440			DISPLAY #1 PANEL 1A1	33	V	02	64	TIN	MC			OSE

JPL 1886 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 136 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	END LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	SEQUENCE NUMBER
D	492441			CHASSIS CONSOLE PWR 1A7	33	V	02	64	TIN	MC	492457		OSE
D	492442			BRACKET CONNECTOR	33	V	02	64	TIN	MC	492457		OSE
B	492443			BRACKET MTG RELAY	33	V	02	64	TIN	MC	492457		OSE
B	492444			BRACKET MTG FILTER	33	V	02	64	TIN	MC	492457		OSE
C	492445			COVER CONSOLE POWER	33	V	02	64	TIN	MC	492457		OSE
C	492446			DIAGRAM ELECT SCHEMATIC	33	V	02	64	TIN	MC	492448		OSE
D	492447			PCB EMITTER FOLLOWER	33	V	02	64	TIN	MC	492448		OSE
D	492448			EMITTER FOLLOWER	33	V	02	64	TIN	MC	492456		OSE
D	492448			EMITTER FOLLOWER	33	V	02	64	TIN	MC	492453		OSE
A	492449			MARKING EMITTER FOLLOWER	33	V	02	64	TIN	MC	492447		OSE
E	492450			PNL FRONT SIMULATOR 1A4	33	V	02	64	TIN	MC	492452		OSE
E	492451			MARKING SIMULATOR PNL	33	V	02	64	TIN	MC	492450		OSE
D	492452			SIMULATOR PANEL 1A4	33	V	02	64	TIN	MC	509697		OSE
D	492452			SIMULATOR PANEL 1A4	33	V	02	64	TIN	MC	492455		OSE
E	492453			DISPLAY #1 1A1	33	V	02	64	TIN	MC	492399		OSE
E	492454			DISPLAY #2 1A2	33	V	02	64	TIN	MC	492399		OSE
E	492455			SIMULATOR 1A4	33	V	02	64	TIN	MC	492399		OSE
E	492456			CONTROL & MONITOR 1A5	33	V	02	64	TIN	MC	492399		OSE
D	492457			CONSOLE POWER 1A7	33	V	02	64	TIN	MC	492399		OSE
C	492458			PANEL CONNECTOR 1A5	33	V	02	64	TIN	MC	492456		OSE
C	492459			PANEL CONNECTOR 1A2	33	V	02	64	TIN	MC	492454		OSE
C	492460			PANEL CONNECTOR 1A1	33	V	02	64	TIN	MC	492453		OSE
C	492461			PANEL CONNECTOR 1A4	33	V	02	64	TIN	MC	492455		OSE
D	492462			CABLE ASSEMBLY W1	33	V	02	64	TIN	MC	492400		OSE
D	492463			CABLE ASSEMBLY W2	33	V	02	64	TIN	MC	492400		OSE
D	492464			CABLE ASSY W3,W4,W5,W6	33	V	02	64	TIN	MC	492400		OSE
C	492465			CABLE ASSY SPECIAL W20	33	V	02	64	TIN	MC	492399		OSE
D	492466			DIAG INTERCONN CABLE OSE	33	V	02	64	TIN	MC	492399		OSE
A	492467			MC OPERATIONAL SUP EQUIP	33	V	02	64	TIN	MC			OSE
B	492468			BRACKET MTG HINGE	33	V	02	64	TIN	MC	492455		OSE
C	492469			BRACKET MTG TB #1	33	V	02	64	TIN	MC	492455		OSE
C	492470		C	BRACKET SIDE 1A4	33	V	02	64	TIN	MC	492455		OSE
C	492471			CHASS UPPER TERMINAL BD	33	V	02	64	TIN	MC	492472		OSE
C	492472			UPPER TERMINAL BD ASSY	33	V	02	64	TIN	MC	492455		OSE
C	492473			CHASS LOWER TERMINAL BD	33	V	02	64	TIN	MC	492474		OSE
C	492474			LOWER TERMINAL BOARD	33	V	02	64	TIN	MC	492455		OSE
C	492475			TERMINAL BD RESISTOR ASY	33	V	02	64	TIN	MC	492476		OSE
C	492476			RESISTOR ASSEMBLY	33	V	02	64	TIN	MC	492474		OSE
C	492477			PLATE STIFFENER	33	V	02	64	TIN	MC	492455		OSE
C	492478			BRACKET MTG -6V PWR SUPP	33	V	02	64	TIN	MC	495948		OSE

JPL 1886 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 137 — DATE LISTED 08/27/65

REV	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DISP STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CEL	REFERENCE NUMBER
B	492479			BRACKET MTG CONNECTOR	33	V	02	64	TIN	MC	495956		OSE
C	492480			BRACKET ANGLE	33	V	02	64	TIN	MC	495951		OSE
C	492481			BRACKET ANGLE	33	V	02	64	TIN	MC	495951		OSE
C	492482			HINGE MODIFIED	33	V	02	64	TIN	MC	495951		OSE
C	492483			PLATE	33	V	02	64	TIN	MC	495951		OSE
D	492484			PNL CONNECTOR INTERNAL	33	V	02	64	TIN	MC	495951		OSE
B	495900			MARKING BASE PLATE	33	V	02	64	TIN	MC	495953		OSE
C	495901			PNL CONNECTOR EXTERNAL	33	V	02	64	TIN	MC	495951		OSE
C	495902			BRACKET MTG CONNECTOR	33	V	02	64	TIN	MC	495955		OSE
C	495902			BRACKET MTG CONNECTOR	33	V	02	64	TIN	MC	495954		OSE
A	495903	WL		PT-TO-PT CABLE W9	33	V	02	64	TIN	MC	495918		OSE
A	495904	WL		PT-TO-PT CABLE W8	33	V	02	64	TIN	MC	495918		OSE
A	495905	WL		PT-TO-PT CABLE W11	33	V	02	64	TIN	MC	495918		OSE
A	495906	WL		PT-TO-PT CABLE W12	33	V	02	64	TIN	MC	495918		OSE
A	495907	WL		PT-TO-PT CABLE W13	33	V	02	64	TIN	MC	495918		OSE
A	495908	WL		PT-TO-PT CABLE W15	33	V	02	64	TIN	MC	495918		OSE
A	495909	WL		PT-TO-PT CABLE W26	33	V	02	64	TIN	MC	495918		OSE
A	495910	WL		PT-TO-PT CABLE W22	33	V	02	64	TIN	MC	495918		OSE
A	495911	WL		PT-TO-PT CABLE W23	33	V	02	64	TIN	MC	495918		OSE
A	495912	WL		PT-TO-PT CABLE W24	33	V	02	64	TIN	MC	495918		OSE
A	495913	WL		PT-TO-PT CABLE W25	33	V	02	64	TIN	MC	495918		OSE
A	495914	WL		PT-TO-PT CABLE W16	33	V	02	64	TIN	MC	495918		OSE
A	495915	WL		PT-TO-PT CABLE W18	33	V	02	64	TIN	MC	495918		OSE
A	495916	WL		PT-TO-PT CABLE W10	33	V	02	64	TIN	MC	495918		OSE
A	495917	WL		PT-TO-PT CABLE W27	33	V	02	64	TIN	MC	495918		OSE
D	495918			CABLE ASSEMBLY	33	V	02	64	TIN	MC	492399		OSE
A	495919	WL		PT-TO-PT CABLE W17	33	V	02	64	TIN	MC	495926		OSE
A	495920	WL		PT-TO-PT CABLE W20	33	V	02	64	TIN	MC	492465		OSE
J	495921			DIAGRAM ELECT SCHEMATIC	33	V	02	64	TIN	MC	492455		OSE
D	495922			PNL FRONT 12 VOLT PWR	33	V	02	64	TIN	MC	495939		OSE
D	495923			MARKING 12 VOLT PWR SUPP	33	V	02	64	TIN	MC	495922		OSE
D	495924			CHASSIS 12 VOLT PWR SUPP	33	V	02	64	TIN	MC	495938		OSE
C	495925			DIAGRAM ELECT SCHEMATIC	33	V	02	64	TIN	MC	492457		OSE
C	495926			CABLE ASSEMBLY W17	33	V	02	64	TIN	MC	492399		OSE
J	495927			DIAG LOGIC DISPLAY #2	33	V	02	64	TIN	MC	492450		OSE
J	495928			DIAG LOGIC DISPLAY #1	33	V	02	64	TIN	MC	492453		OSE
J	495929			DIAG LOGIC CONTROL DWR	33	V	02	64	TIN	MC	492456		OSE
A	495930			BAND MARKER CABLE	33	V	02	64	TIN	MC	492465		OSE
A	495930			BAND MARKER CABLE	33	V	02	64	TIN	MC	495918		OSE
A	495930			BAND MARKER CABLE	33	V	02	64	TIN	MC	495926		OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 138 — DATE LISTED 08/27/65

REV	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	DISP. DIV.	DISP STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CEL	REFERENCE NUMBER
A	495930			BAND MARKER CABLE	33	V	02	64	TIN	MC	509708		OSE
A	495930			BAND MARKER CABLE	33	V	02	64	TIN	MC	509709		OSE
C	495931			BRACKET MTG TB #2	33	V	02	64	TIN	MC	495958		OSE
B	495932			LENS FLAT MODIFIED	33	V	02	64	TIN	MC	492430		OSE
C	495933			STRIP MOUNTING	33	V	02	64	TIN	MC	495934		OSE
C	495934			BOARD ENCODER MOUNTING	33	V	02	64	TIN	MC	486083		OSE
B	495935			SPACER ROUND	33	V	02	64	TIN	MC	495934		OSE
B	495936			KNOB ROUND	33	V	02	64	TIN	MC	495937		OSE
B	495937			SCREW KNURLED HEAD	33	V	02	64	TIN	MC	495934		OSE
E	495938			12 POWER SUPPLY 1A6	33	V	02	64	TIN	MC	492399		OSE
D	495939			12 POWER SUPPLY PANEL	33	V	02	64	TIN	MC	495938		OSE
C	495943			BRACKET SIDE 1A1	33	V	02	64	TIN	MC	492453		OSE
C	495944			BRACKET SIDE 1A2	33	V	02	64	TIN	MC	492454		OSE
C	495945			BRACKET SIDE 1A5	33	V	02	64	TIN	MC	492456		OSE
C	495946			BRACKET MTG -6V PWR SUPP	33	V	02	64	TIN	MC	495949		OSE
C	495947			BRACKET MTG -6V PWR SUPP	33	V	02	64	TIN	MC	495950		OSE
C	495948			-6V POWER SUPPLY 1A1	33	V	02	64	TIN	MC	492453		OSE
C	495949			-6V POWER SUPPLY 1A2	33	V	02	64	TIN	MC	492454		OSE
C	495950			-6V POWER SUPPLY 1A5	33	V	02	64	TIN	MC	492456		OSE
E	495951			JUNCTION BOX 1A16	33	V	02	64	TIN	MC	492399		OSE
B	495952			6 VOLT REGULATOR	33	V	02	64	TIN	MC	495955		OSE
B	495953			PLATE BASE 6 VOLT REG	33	V	02	64	TIN	MC	495957		OSE
B	495953			PLATE BASE 6 VOLT REG	33	V	02	64	TIN	MC	495952		OSE
D	495954			28V PWR SUPPLY MODIFIED	33	V	02	64	TIN	MC	492399		OSE
D	495955			12V PWR SUPPLY MODIFIED	33	V	02	64	TIN	MC	492399		OSE
C	495956			VOLTMETER MODIFIED 1A3	33	V	02	64	TIN	MC	492399		OSE
B	495957			-6 VOLT REGULATOR	33	V	02	64	TIN	MC	495955		OSE
C	495958			POWER DISTRIBUTION ASSY	33	V	02	64	TIN	MC	492455		OSE
A	495959			PLATE IDENT MC CONSOLE	33	V	02	64	TIN	MC	492400		OSE
[illegible]	[illegible]			PLATE IDENT DISPLAY 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	495961			PLATE IDENT DISPLAY 2	33	V	02	64	TIN	MC	492454		OSE
A	495962			PLATE IDENT SIMULATOR	33	V	02	64	TIN	MC	492455		OSE
A	495963			PLATE IDENT CONT & MON	33	V	02	64	TIN	MC	492456		OSE
A	495964			PLATE IDENT POWER SUPPLY	33	V	02	64	TIN	MC	495938		OSE
A	495965			PLATE IDENT CONSOLE PWR	33	V	02	64	TIN	MC	492457		OSE
A	495966			PLATE IDENT JUNCTION BOX	33	V	02	64	TIN	MC	495951		OSE
A	495967			POWER SUPPLY -28V	33	V	02	64	TIN	MC	495954		OSE
A	495968			POWER SUPPLY -12V	33	V	02	64	TIN	MC	495955		OSE
A	495969	WL		PT-TO-PT PWR SUPPLY 1A6	33	V	02	64	TIN	MC	495938		OSE
C	495970			MARINER C OSE LAUNCH	33	V	10	64	TIN	MC	509700-1		OSE

JPL 1300 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 139 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CDL	SEQUENCE NUMBER
J	495971			MC OSE LAUNCH COMPLEX	33	V	10	64	TIN	MC	495970-1		OSE
C	495972			TERMINAL BOARD JUNCTION	33	V	10	64	TIN	MC	495974-1		OSE
D	495973			CHASSIS JUNCTION BOX	33	V	10	64	TIN	MC	495974-1		OSE
D	495974			JUNCTION BOX LAUNCH	33	V	10	64	TIN	MC	495971-1		OSE
C	495975			CABLE ASSY SPECIAL	33	V	10	64	TIN	MC	495971-1		OSE
D	495976			DIAG INTERCONNECTING	33	V	10	64	TIN	MC			OSE
A	495977			WIRING LIST	33	V	10	64	TIN	MC	492465-2		OSE
J	495978			MARKING SIMULATOR	33	V	10	64	TIN	MC	492450-2		OSE
D	495979			PANEL FRONT CONTROL	33	V	10	64	TIN	MC	495981-1		OSE
J	495980			MARKING CONTROL	33	V	10	64	TIN	MC	495979-1		OSE
D	495981			PANEL ASSY CONTROL	33	V	10	64	TIN	MC	509696-1		OSE
D	495982			PANEL FRONT 12 BOLT	33	V	10	64	TIN	MC	495996-1		OSE
D	495983			MARKING 12 VOLT POWER	33	V	10	64	TIN	MC	495982-1		OSE
D	495984			CHASSIS 12 VOLT	33	V	10	64	TIN	MC	495997-1		OSE
A	495985	WL		PT-TO-PT DISPLAY 1 1A1	33	V	02	64	TIN	MC	492453		OSE
A	495986	WL		PT-TO-PT DISPLAY 2 1A2	33	V	02	64	TIN	MC	492454		OSE
A	495987	WL		PT-TO-PT SIMULATOR 1A4	33	V	02	64	TIN	MC	492455		OSE
A	495988	WL		PT-TO-PT CONT & MON 1A5	33	V	02	64	TIN	MC	492456		OSE
A	495989	WL		PT-TO-PT CONSOL PWR 1A7	33	V	02	64	TIN	MC	492457		OSE
A	495990	WL		PT-TO-PT JUNCTION BOX	33	V	02	64	TIN	MC	495951		OSE
A	495991			DIGITAL RECORDER	33	V	02	64	TIN	MC	492399		OSE
B	495992			SCREW MODIFIED	33	V	02	64	TIN	MC	495938		OSE
B	495992			SCREW MODIFIED	33	V	02	64	TIN	MC	492455		OSE
B	495992			SCREW MODIFIED	33	V	02	64	TIN	MC	492452		OSE
B	495992			SCREW MODIFIED	33	V	02	64	TIN	MC	492407		OSE
B	495992			SCREW MODIFIED	33	V	02	64	TIN	MC	492430		OSE
B	495992			SCREW MODIFIED	33	V	02	64	TIN	MC	492440		OSE
B	495993			LOCATION CHART	33	V	02	64	TIN	MC	492456		OSE
B	495993			LOCATION CHART	33	V	02	64	TIN	MC	492455		OSE
B	495993			LOCATION CHART	33	V	02	64	TIN	MC	492454		OSE
B	495993			LOCATION CHART	33	V	02	64	TIN	MC	492453		OSE
D	495994			DIAG ELECT SCHEM	33	V	02	64	TIN	MC	495954		OSE
D	495995			DIAG ELECT SCHEM	33	V	02	64	TIN	MC	495955		OSE
D	495996			& 12 VOLT POWER SUPPLY	33	V	10	64	TIN	MC	495997-1		OSE
J	495997			&12 POWER SUPPLY	33	V	10	64	TIN	MC	509691-1		OSE
D	495998			PANEL CONNECTOR	33	V	10	64	TIN	MC	509695-1		OSE
D	495999			PANEL CONNECTOR	33	V	10	64	TIN	MC	509695-1		OSE
J	503100			TELEMETRY DATA DEMOD	33	V	01	65	TIN	MC			OSE
B	503101			NAME PLATE DATA DEMOD	33	V	01	65	TIN	MC			OSE
C	503102			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC			OSE

JPL 1280 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 140 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT CDL	SEQUENCE NUMBER
D	503103			PCB SQUARE LAW DET	33	V	01	65	TIN	MC			OSE
D	503104			SQUARE LAW DET	33	V	01	65	TIN	MC			OSE
C	503108			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC			OSE
D	503109			PCB LIMITER AMPL	33	V	01	65	TIN	MC			OSE
D	503110			LIMITER AMPLIFIER	33	V	01	65	TIN	MC			OSE
J	503111			PANEL FRONT TELEMETRY	33	V	01	65	TIN	MC			OSE
J	503112			MARKING PANEL FRONT	33	V	01	65	TIN	MC			OSE
J	503112			MARKING PANEL FRONT	33	V	01	65	TIN	MC			OSE
D	503113			TUNING-UNIT TELEMETRY	33	V	01	65	TIN	MC	503100-1		OSE
D	503115			TUNING UNIT TELEMETRY	33	V	01	65	TIN	MC	503100-1		OSE
D	503116			TUNING UNIT TELEMETRY	33	V	01	65	TIN	MC	503100-1		OSE
D	503118			TUNING LIMIT TELEMETRY	33	V	01	65	TIN	MC	503100-1		OSE
D	503119			TUNING LIMIT TELEMETRY	33	V	01	65	TIN	MC	503100-1		OSE
D	503120			TUNING UNIT TELEMETRY	33	V	01	65	TIN	MC	503100-1		OSE
D	503121			TUNING UNIT TELEMETRY	33	V	01	65	TIN	MC	503100-1		OSE
D	503122			TUNING UNIT TELEMETRY	33	V	01	65	TIN	MC	503100-1		OSE
D	503123			FRONT PANEL MOD	33	V	01	65	TIN	MC			OSE
D	503123			FRONT PANEL MODULE	33	V	01	65	TIN	MC			OSE
C	503124			IDENTIFICATION PLATE MOD	33	V	01	65	TIN	MC			OSE
B	503125			SELECTOR SWITCH MOD	33	V	01	65	TIN	MC			OSE
B	503126			SCREW MODIFIED	33	V	01	65	TIN	MC			OSE
B	503127			NAME PLATE DATA	33	V	01	65	TIN	MC			OSE
C	503134			REAR PANEL MODULE	33	V	01	65	TIN	MC			OSE
B	503135			SPACER THREADED	33	V	01	65	TIN	MC			OSE
D	503136			PLATE REAR CONNECTOR	33	V	01	65	TIN	MC			OSE
D	503137			BRACKET INTERNAL	33	V	01	65	TIN	MC			OSE
C	503138			BRACKET SWITCH	33	V	01	65	TIN	MC			OSE
D	503139			SIDE DATA DEMODULATOR	33	V	01	65	TIN	MC			OSE
D	503140			MARKING PLATE REAR	33	V	01	65	TIN	MC	503136-2		OSE
B	503141			COLLAR	33	V	01	65	TIN	MC			OSE
D	503142			PANEL FRONT INTERNAL	33	V	01	65	TIN	MC			OSE
B	503143			BRACKET SLIDE #1	33	V	01	65	TIN	MC			OSE
B	503144			BRACKET SLIDE #2	33	V	01	65	TIN	MC			OSE
C	503145			GUIDE RAIL	33	V	01	65	TIN	MC			OSE
C	503146			DIAGRAM ELECTRONIC SCHEM	33	V	01	65	TIN	MC	503151		OSE
C	503146			DIAGRAM ELECTRONIC SCHEM	33	V	01	65	TIN	MC	503151		OSE
C	503147			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	503148			PCB RECEIVER	33	V	01	65	TIN	MC			OSE
D	503149			RECEIVER COMPENSATION	33	V	01	65	TIN	MC			OSE
D	503150			BANDPASS FILTER	33	V	01	65	TIN	MC			OSE

JPL 1280 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 141 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	REQP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	REFERENCE NUMBER
C	503151			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	503153		OSE
D	503152			BANDPASS FILTER B	33	V	01	65	TIN	MC			OSE
C	503153			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	503155		OSE
D	503154			BANDPASS FILTER B	33	V	01	65	TIN	MC			OSE
C	503155			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	503157		OSE
D	503156			BANDPASS FILTER B #5	33	V	01	65	TIN	MC			OSE
C	503157			DIAGRAM ELECT SCHEM	33	V	01	65	TIN	MC	503159		OSE
D	503158			BANDPASS FILTER B	33	V	01	65	TIN	MC			OSE
D	503160			BANDPASS FILTER B #7	33	V	01	65	TIN	MC			OSE
C	503161			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	503163		OSE
D	503162			BANDPASS FILTER B #8	33	V	01	65	TIN	MC			OSE
B	503163			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	503164			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	503165			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	503166			DOMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	503167			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	503168			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	503169			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	503170			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	503171			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	503172			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	503173			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	503174			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
C	505150			UMBILICAL LINE AMPLIFIER	33	V	10	64	TIN	MC			OSE
D	505151			UMBILICAL LINE AMPLIFIER	33	V	10	64	TIN	MC	505150-1		OSE
C	505152			BRACKET MOUNTING	33	V	10	64	TIN	MC	505151-1		OSE
B	505153			CLAMP LOOP	33	V	10	64	TIN	MC	505151-1		OSE
D	505154			CHASSIS AMPLIFIER	33	V	10	64	TIN	MC	505151-1		OSE
A	505155			NAME PLATE UMBILICAL	33	V	10	64	TIN	MC	505150-1		OSE
C	505156			SPACER THREADED	33	V	10	64	TIN	MC	505151-1		OSE
C	505156			SPACER THREADED	33	V	10	64	TIN	MC	505151-2		OSE
C	505157			COVER	33	V	10	64	TIN	MC	505151-1		OSE
D	505158			DIAG ELECTRONIC SCHEM	33	V	10	64	TIN	MC	505160-1		OSE
D	505158			DIAG ELECTRONIC SCHEM	33	V	10	64	TIN	MC	505162-1		OSE
D	505158			DIAG ELECTRONIC SCHEM	33	V	10	64	TIN	MC	505151-1		OSE
C	505159			PCB ENCODER SYNCHRONIZ	33	V	10	64	TIN	MC	505160-1		OSE
C	505160			ENCODER SYNCHRONIZING	33	V	10	64	TIN	MC	505151-1		OSE
C	505161			PCB SIGNAL AMPLIFIER	33	V	10	64	TIN	MC	505162-1		OSE
C	505162			GSE SIGNAL AMPLIFIER	33	V	10	64	TIN	MC	505151-1		OSE
A	505163			TEST PROCEDURE INSPECT	33	V	10	64	TIN	MC			OSE

JPL 1886 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 142 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	CHG LTR	TITLE	REQP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OFF COL	REFERENCE NUMBER
A	505164			DATA SHEET INSPECTION	33	V	10	64	TIN	MC			OSE
A	505165			WIRING LIST POINT TO	33	V	10	64	TIN	MC	505151-1		OSE
A	505166			INDEX NUM UMBIL LINE AMP	33	V	10	64	TIN	MC			OSE
A	505167			NUMERICAL AMPLIFIER TEST	33	V	03	64	TIN	MC			OSE
D	505195			DOOR REAR MODIFIED	33	V	10	64	TIN	MC	505197-5		OSE
D	505196			DOOR REAR MODIFIED	33	V	10	64	TIN	MC	505197-5		OSE
D	505197			RACK OSE LAUNCH COMPLEX	33	V	10	64	TIN	MC	495971-1		OSE
D	505197			RACK OSE LAUNCH COMPLEX	33	V	10	64	TIN	MC	505195-1		OSE
D	505197			RACK OSE LAUNCH COMPLEX	33	V	10	64	TIN	MC	505196-1		OSE
C	505198			MOLDING METAL	33	V	10	64	TIN	MC	505199-1		OSE
D	505199			DOOR REAR MODIFIED	33	V	10	64	TIN	MC	505200-2		OSE
D	505200			RACK OSE SYSTEM TEST	33	V	10	64	TIN	MC	509691-1		OSE
A	505201			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	492453-2		OSE
A	505202			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	509697-1		OSE
A	505203			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	509696-1		OSE
A	505204			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	495997-1		OSE
A	505205			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	509695-1		OSE
A	505206			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	512672-1		OSE
A	505207			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	509690-1		OSE
A	505208			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	495970-1		OSE
C	505209			PANEL BLANK	33	V	10	64	TIN	MC	495971-1		OSE
A	505210			WL POINT-TO-POINT	33	V	10	64	TIN	MC	492453-2		OSE
A	505211			WL POINT-TO-POINT	33	V	10	64	TIN	MC	509697-1		OSE
A	505212			WL POINT-TO-POINT	33	V	10	64	TIN	MC	509696-1		OSE
A	505213			WL POINT-TO-POINT	33	V	10	64	TIN	MC	495997-1		OSE
A	505216			WL POINT-TO-POINT	33	V	10	64	TIN	MC	509695-1		OSE
A	505217			WL POINT-TO-POINT	33	V	10	64	TIN	MC	495974-1		OSE
A	505218			WL POINT-TO-POINT	33	V	10	64	TIN	MC	512672-1		OSE
C	509680			DIAG ELECTRONIC SCHEM	33	V	10	64	TIN	MC	509682-1		OSE
D	509681			PCB STEP VOLTAGE DIVIDER	33	V	10	64	TIN	MC	509682-1		OSE
D	509682			STEP VOLTAGE DIVIDER	33	V	10	64	TIN	MC	509682-1		OSE
A	509683			MARKING STEP VOLTAGE	33	V	10	64	TIN	MC	509681-1		OSE
D	509684			CABLE ASSY SPECIAL	33	V	10	64	TIN	MC	509690-1		OSE
D	509685			CABLE ASSY SPECIAL	33	V	10	64	TIN	MC	509690-1		OSE
C	509686			DIAG ELECTRONIC SCHEM	33	V	10	64	TIN	MC	495997-1		OSE
C	509687			DIAG ELECTRONIC SCHEM	33	V	10	64	TIN	MC	495938-1		OSE
B	509688			BRACKET ANGLE	33	V	10	64	TIN	MC	509701-1		OSE
D	509689			DIAG ELECTRONIC SCHEM	33	V	10	64	TIN	MC	509693-1		OSE
C	509690			MARINER C OSE SYS TEST	33	V	10	64	TIN	MC	509700-1		OSE
J	509691			MC OPERATIONAL SUPPORT	33	V	10	64	TIN	MC	509690-1		OSE

JPL 1886 JUN 65

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 143 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	509692			PCB TRACK STIP	33	V	10	64	TIN	MC	509693-1		OSE
D	509693			TRACK STEP PULSE	33	V	10	64	TIN	MC	512672-1		OSE
A	509694			MARKING TRACK	33	V	10	64	TIN	MC	509692-2		OSE
J	509695			JUNCTION BOX	33	V	10	64	TIN	MC	509691-1		OSE
J	509696			CONTROL AND MONITOR	33	V	10	64	TIN	MC	509691-1		OSE
J	509697			SIMULATOR 1A4	33	V	10	64	TIN	MC	509691-1		OSE
A	509698			WL POINT TO POINT CABLE	33	V	10	64	TIN	MC	495975-1		OSE
A	509699			METER MODIFIED	33	V	10	64	TIN	MC	512672-1		OSE
A	509700			MARINER C OPERATIONAL	33	V	10	64	TIN	MC			OSE
J	509701			DIAG LOGIC DISPLAY	33	V	10	64	TIN	MC	492453-2		OSE
J	509702			DIAG ELECT SCHEMATIC	33	V	10	64	TIN	MC	509697-1		OSE
J	509703			DIAG LOGIC CONTROL	33	V	10	64	TIN	MC	509696-1		OSE
C	509704			DIAG ELECTRONIC SCHEM	33	V	10	64	TIN	MC	509706-1		OSE
D	509705			PCB 0-100 MV SIMULATOR	33	V	10	64	TIN	MC	509706-1		OSE
D	509706			SIMULATOR 0-100 MV	33	V	10	64	TIN	MC	509697-1		OSE
A	509707			MARKING 0-100	33	V	10	64	TIN	MC	509705-1		OSE
C	509708			CABLE SPECIAL PURPOSE EL	33	V	02	64	TIN	MC	492399		OSE
C	509709			CABLE SPECIAL PURPOSE EL	33	V	02	64	TIN	MC	492399		OSE
C	509735			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	509736		OSE
D	509736			MC DEMODULATOR	33	V	01	65	TIN	MC			OSE
C	509737			DIAG ELECT SHCEM	33	V	01	65	TIN	MC	509738		OSE
D	509738			MC DEMODULATOR	33	V	01	65	TIN	MC			OSE
C	509739			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	509740		OSE
D	509740			MC DEMODULATOR	33	V	01	65	TIN	MC			OSE
C	509741			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	509742		OSE
D	509742			MC DEMODULATOR	33	V	01	65	TIN	MC			OSE
C	509743			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	509744		OSE
D	509744			MARINER C DEMODULATOR	33	V	01	65	TIN	MC			OSE
C	509745			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	509746		OSE
D	509746			MC DEMODULATOR	33	V	01	65	TIN	MC			OSE
C	509747			DIAG ELECT SCHEM	33	V	01	65	TIN	MC	509748		OSE
D	509748			MC DEMODULATOR	33	V	01	65	TIN	MC			OSE
D	509749			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC	509751-1		OSE
D	509750			PCB VOLTAGE CONT	33	V	01	65	TIN	MC			OSE
D	509751			VOLTAGE CONT OSCILLATOR	33	V	01	65	TIN	MC			OSE
B	509753			DIAG ELECT SHCEM	33	V	01	65	TIN	MC			OSE
D	509754			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	509755			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	509756			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	509757			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE

JPL 1868 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DRAWING LIST — MARINER C OSE NUMERICAL — PAGE 144 — DATE LISTED 08/27/65

SIZE	DRAWING NUMBER	DASH NO.	ENG LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	OPT COL	SEQUENCE NUMBER
D	509758			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	509759			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	509760			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	509761			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	509762			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	509763			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	509764			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	509950			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	509951			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
B	509952			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
C	509953			DIAG ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	509954			LINE FILTER & PLL	33	V	01	65	TIN	MC			OSE
D	509955			PCB LINE FIL	33	V	01	65	TIN	MC			OSE
D	509956			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC			OSE
D	509957			PCB INTEGRATOR RESET	33	V	01	65	TIN	MC			OSE
D	509958			DIAG ELEC SCHEMATIC	33	V	01	65	TIN	MC			OSE
D	509959			PCB OUTPUT DR CIRCUITS	33	V	01	65	TIN	MC			OSE
C	509960			DIAGRAM ELECT SCHEM	33	V	01	65	TIN	MC			OSE
D	509961			PCB PHASE DET	33	V	01	65	TIN	MC			OSE
C	509962			DIAGRAM ELECTRONIC SCHEM	33	V	01	65	TIN	MC			OSE
D	509963			PCB PHASE DET #2	33	V	01	65	TIN	MC			OSE
B	509964			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
B	509965			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
B	509966			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
B	509967			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
A	509968			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
B	509969			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
B	509970			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
B	509971			CARD LOCATION CHART	33	V	01	65	TIN	MC			OSE
C	509981			DIAG ELECTRONIC SCHEM	33	V	01	65	TIN	MC			OSE
D	509982			PCB LOOP FILTER	33	V	01	65	TIN	MC			OSE
D	509983			LOOP FILTER	33	V	01	65	TIN	MC			OSE
D	509984			INTEGRATOR RESET	33	V	01	65	TIN	MC			OSE
D	509985			OUTPUT DRIVER CIRCUITS	33	V	01	65	TIN	MC			OSE
D	509986			PHASE DETECTOR #1	33	V	01	65	TIN	MC			OSE
D	509987			PHASE DETECTOR	33	V	01	65	TIN	MC			OSE
D	509988			DEMODULATOR INDUCTOR	33	V	01	65	TIN	MC			OSE
A	509991			INDEX MC TELEMETRY	33	V	01	65	TIN	MC			OSE
D	512668			PANEL FRONT VIDEO	33	V	10	64	TIN	MC	512672-1		OSE
C	512669			BRACKET SIDE 1A17	33	V	10	64	TIN	MC	512672-1		OSE

JPL 1868 JUN 63

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA

DATE LISTED 08/27/65

DRAWING LIST MARINER C OSE NUMERICAL PAGE 145

REV	DRAWING NUMBER	BASIC NO.	ERR LTR	TITLE	RESP. DIV.	DWG STAT	RELEASE DATE MO.	RELEASE DATE YR.	VENDOR CODE	USED ON	NEXT ASSEMBLY	QTY COL	REFERENCE DRAWING
C	512670			BRACKET MOUNTING	33	V	10	64	TIN	MC	512672-1		OSE
C	512671			PANEL MOUNTING	33	V	10	64	TIN	MC	512672-1		OSE
J	512672			VIDEO CONT & MONITOR	33	V	10	64	TIN	MC	495971-1		OSE
D	512673			DIAG ELECT SCHEMATIC	33	V	10	64	TIN	MC	512675-1		OSE
D	512674			PCB METER DRIVER	33	V	10	64	TIN	MC	512675-1		OSE
D	512675			METER DRIVER AMPL	33	V	10	64	TIN	MC	512672-1		OSE
A	512676			MARKING METER	33	V	10	64	TIN	MC	512674-2		OSE
C	512677			CABLE ASSY SPECIAL	33	V	10	64	TIN	MC	495971-1		OSE
C	512678			CABLE ASSY SPECIAL	33	V	10	64	TIN	MC	495971-1		OSE
D	512679			DIAG ELECT SCHEMATIC	33	V	10	64	TIN	MC	512672-1		OSE
A	512680			PLATE IDENTIFICATION	33	V	10	64	TIN	MC	495974-1		OSE
D	512681			PANEL REAR	33	V	10	64	TIN	MC	495971-1		OSE

JPL 1300 JUN 60

APPENDIX D

Freeze List

In order to effect design control, a freeze list was inaugurated on March 11, 1963, that included all released functional specifications. This list gave the cognizant JPL technical division engineers freedom to change the internal designs as long as the functional specifications were not violated. Additions to the freeze list were made periodically and distributed broadly; the final version was released December 3, 1963.

Other controlling documents, such as the spacecraft envelope control drawings, were progressively placed on the freeze list. In general, interfaces were resolved and controlled as rapidly as possible until January 1964, the time of delivery of the PTM equipment for assembly, when a total spacecraft freeze was imposed. (It was felt that any change made after that date would have a significant impact on the rest of the system.) The final Freeze List is shown in this appendix.

Mariner C Freeze List

	Drawing or Spec No.	Scheduled Rel. Date	Actual Rel. Date	Responsible	Rev. Date
S/C Functional Specs	PER ENCLOSURE 1				
Packaging Specification	31128	2/5/63	2/5/63 Amendment 1 per ECR 6682	G. Ervin	
S/C Circuit Data Sheets	PER ENCLOSURE 2				
*S/C Functional Block Diagram	J4900646	3/4/63	8/19/63	J. Casani	
*TA Test Spec	30250-B	3/11/63	3/15/63 Amendment 1 date 10/11/63	J. Maclay	
*FA Test Spec	30251-B	3/11/63	3/15/63 Amendment 1 date 10/11/63	J. Maclay	
OSE Functional Specs	PER ENCLOSURE 3				
Configuration Drawing	J4190502 A	3/22/63	3/22/63	D. Spehalski	7/24/63
*Interface Control Drawing	J4101309 A	4/12/63	4/22/63	N. Johnson	9/20/63
System Wiring Interface Diagrams	Superseded 7/25/63 per IOM 313-1034				
OSE Interface Circuit Data Sheets	PER ENCLOSURE 5				
LC Cabling Definition	Block Diags, Instl Dwgs, Cable Diags	4/15/63	7/8/63 (P)	T. Meyer	
*S/C Cabling Master Block Diagram	J4900548 A	4/30/63	8/8/63	R. Stickley	10/17/63
Subassembly sizes, fastener dimension, connector type, locations, gender and orientation	Control dwgs and pkg. layout	4/30/63	4/9/63	J. Jodele/ Cog. Engineers	
*Electronic Packaging Assy	J4901042 B	4/30/63	9/20/63	J. Jodele	11/6/63
Control Dwgs (Elec. Eqpt.)	PER ENCLOSURE 6				
S/C Harnessing Diagrams	PER ENCLOSURE 7				
LCE Installation Spec	30814, 30768	7/8/63 ---	8/15/63, 6/3/63 (P)	T. Meyer	
LCE Installation Drawings	D8901894, D8901895, D8901896	7/8/63		T. Meyer	
Environ. Test Complex Layout	OSE/MC-3-130 (Fig. 2)	8/12/63		M. Goldfine	
STC Cabling Block Diagram	J-101378	8/15/63	6/24/63 (P)	J. Casani	
STC Cabling Diagrams		8/15/63		J. Schantzen	
STC J-Box Diagram		8/15/63		J. Schantzen	
STC Layout		8/19/63		M. Goldfine	
LCE Block Diagrams	J8901874, J8901875	12/15/63		T. Meyer	
LCE Cabling Diagrams	B8901873, B8901891, B8901892, B8901893	12/15/63	9/27/63	T. Meyer	

*Denotes change from report of 10/7/63

(P) Preliminary Report

NOTE: Per EPD-150, the designs established by all documents on this list are considered frozen and revisable only by ECR action (Ref. Re-Order 63-83) after the scheduled release date or as of the actual release date, whichever is later. When a freeze binds the design, changes to hardware and defining documentation must be accomplished via a properly completed ECR.

In addition to the control and interface documentation, the following subsystems and/or assembly's designs, including all subsidiary assemblies and details, are frozen in their entirety and subject to ECR control per Re-Order 63-83.

Dwg. Number	Item Description	Ref. Desig.	Freeze Date
4600519B	D/E and Command	E-A4	11/6/63
420579A	A/C and CC&S Assy	7A and 5A	11/2 ECR 6607 Not incor- 6727 porated 6743 A/C
4201610E	Sun Gate Assy	7SG7	11/2/63
7201635B	Square Root Sun Sensor	(7SP2) (7SP6)	11/2
7201640C	Square Root Sun Sensor	(7SS2) (7SS6)	11/2
4101302	Structure Assy	None	11/1
4101330	Thermal Control Inst	11LT	10/24
4101500	Absorbtivity Std Assy	11FM1	10/24
4901121	Pyrotechnic Arming	8AS1	10/22
4901108A	Separation Initiated Timer	8M1	11/6
4201693	Deployment Mechanism Assy	None	10/24
4201710A	Solar Vane Assy	None	11/4
4201720	Latch Assy Solar Vane	None	11/4
4901123	Pin Puller Assy	8PP1	11/6

AMENDMENT NUMBER 1 TO FREEZE LIST DATED 12 NOVEMBER 1963

Drawing No.	Item Description	Ref. Design.	Freeze Date
4201381	Attitude Control Installation	----	11/22/63
4101400	Planetary Science Platform	----	11/26/63
4801224 B	Cosmic Dust Detector	24A1	12/03/63
4400556	Power Subsystem	----	11/20/63
4700600	PIPS Assembly	----	11/08/63
4101530	Damper Solar Panel - Cruise	----	11/21/63
4101575	Damper Solar Panel - Boost	----	11/21/63
4101516	PIPS Support Structure	----	11/11/63
4101550	Retarder Solar Panel	----	11/26/63

ENCLOSURE 1
Page 1 of 3

S/C FUNCTIONAL SPECS

Item	Spec Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
Mission Objectives & Design Criteria	MC2-110A	2/1/63	12/7/62	J. James	3/25/63
Design Characteristics	MC-3-110	2/1/63	12/17/62	J. Casani	
Design Restraints	MC-3-120	2/1/63	12/8/62	J. Casani	
Standard Trajectories	MC-4-110	2/1/63	12/7/62	N. Haynes	
S/C Components Design Para.	MC-4-120B	2/1/63	12/7/62	J. Casani	9/23/63
S/C Component Identification	MC-4-130B	2/1/63	3/8/63	F. Smith	7/1/63
Vehicle Integration	MC-4-140	2/1/63	4/1/63	J. Spaulding	
Telemetry Criteria	MC-4-150	2/1/63	12/6/62	J. Holmes	
*Telemetry Channel Assignment	MC-4-160A	2/1/63	4/1/63	W. Apel	6/26/63
		Amendment 1 dated 10/24			
Maneuver & Accuracy Reqmt.	MC-4-170	2/1/63	12/7/62	C. Kohlhase	
Flight Sequence	MC-4-180A	2/1/63	12/20/62	J. Casani	9/27/63
Layout & Configuration	MC-4-190A	2/1/63	4/11/63	J. Casani	8/20/63
Data Automation System	MC-4-220	2/1/63	6/25/63	D. Slaughter	
Solar Plasma Detector	MC-4-223	Deleted by ECR 6523	4/10/63		
* Cosmic Dust Detector (GSFC)	MC-4-224B	2/1/63	12/5/62	D. Schofield	10/22/63
Ion Chamber	MC-4-226	2/1/63	9/10/63	G. Despain	
Planetary Scan System	MC-4-231B	2/1/63	12/14/62	R. Wong	9/17/63
Magnetometer	MC-4-233	2/1/63	12/5/62	D. Norris	
Television	MC-4-236	2/1/63	4/22/63	D. Allen	
* Ultra Violet Photometer	MC-4-234A	5/15/63	6/8/63	D. Margetts	10/24/63
Infra Red Graiting Spectrom.	MC-4-237	Deleted by ECR 6507	3/26/63		

Enclosure 1
Page 2 of 3

	Spec Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
Cosmic Ray Telescope (U of C)	MC-4-221	5/15/63	10/7/63	R. Holman	
Trapped Radiation Det. (SUI)	MC-4-225	5/15/63	9/10/63	D. Schofield	
*Plasma Probe (MIT)	MC-4-232	5/15/63	10/7/63	R. Graham	
Telecommunication System	MC-4-310	2/1/63	12/7/62	I. Krell	
S/C Radio Subsystem	MC-4-320	2/1/63	2/8/63	T. Cocca	
*S/C Telemetry Subsystem	MC-4-321A	2/1/63	12/6/62	W. Apel	5/17/63
		Amendment 1 dated 10/24			
S/C Command Subsystem	MC-4-322A	2/1/63	12/14/62	A. Spear	6/3/63
Video Command Recorder	MC-4-323	2/1/63	12/5/62	W. Apel	
Attitude Control System	MC-4-410	2/1/63	12/23/62	D. Acord	
Solar Pressure Att. Control	MC-4-411	2/1/63	5/10/63		
Autopilot	MC-4-420	2/1/63	12/12/62		
*Central Computer & Sequencer	MC-4-450 A	2/1/63	12/19/62		9/27/63
		Amendment 1 dated 10/28			
Power Supply System	MC-4-460A	2/1/63	3/5/63		8/21/63
Temperature Control System	MC-4-510A	2/1/63	12/7/62	D. Lewis	5/1/63
Absorptivity Standard	MC-4-511	New	4/1/63	J. Brandt	
*Spacecraft Structure	MC-4-520	2/1/63	12/7/62	J. Wilson	10/22/63
Structural Design Criteria	MC-4-521	2/1/63	8/5/63	J. Wilson	
Pyrotechnic Subsystem	MC-4-530A	2/1/63	1/10/63	L. Moor	8/22/63
Weight, C.G., Moments of Inertia & Products of Iner.	MC-4-540	2/1/63	12/13/62	W. Layman	
Electronic Packaging	MC-4-550	2/1/63	12/7/62	J. Jodele	
Flight Harnessing	MC-4-560	2/1/63	4/11/63	W. Pierce	

Enclosure 1
Page 3 of 3

Title	Spec Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
Solar Panel Actuator	MC-4-570 A	2/2/63	12/3/62	R. Barlow	8/19/63
Scan Actuator	MC-4-580 A	2/1/63	12/26/62	R. Barlow	5/1/63
*Separation Initiated Timer	MC-4-590 A	New	6/17/63	R. Barlow	10/11/63
Post Injection Propulsion Sys	MC-4-610A	2/1/63	12/7/62	*B. Schmitz	4/1/63

*Denotes change from report of 10/7/63

ENCLOSURE 2
Page 1 of 4

S/C CIRCUIT DATA SHEETS

Item	Dwg. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
* Index	B-120401B	3/1/63	8/13/63	R. Neilson	10/11/63
Return Side Tree	B-120484	---	9/10/63	"	
* Power Distribution Interf.	B-120402B	"	6/5/63	F. Smith	11/4/63
* TLM Temp Transducers	B-120492	---	11/7/63	"	
* Pyro Arming Sw & Sep Ini Tim	B-120485	"	11/8/63	"	
* TLM Functions	B-120493	---	10/29/63	"	
Separation Connector	B-120486	"	8/12/63	"	
* Scan Platform Power Interlock	B-120494	---	10/29/63	"	
Power Umbilical Functions	B-120487	"	8/12/63	"	
* TV Camera Head	B-120497	---	10/29/63	"	
* A/C Gas Valves & Solar Vanes	B-120483A	"	8/5/63	"	10/31/63
* DAS Umbilical Functions	B-120496	---	11/6/63	"	
* Scan Subsys Umbilical Functs	B-120495	"	10/17/63	"	
* Radio-Command Interface	B-120403C	"	4/10/63	"	10/31/63
* " -Power Interface	B-120404B	"	5/20/63	"	10/31/63
" -CC&S Interface	B-120405A	"	4/10/63	"	8/22/63
* " -Encoder Interface	B-120406C	"	4/10/63	"	10/28/63
" -Attitude Control	B-120481	"	6/28/63	"	
" -Radio OSE	B-120458A	"	5/6/63	"	7/23/63
* Command-Power Interface	B-120408B	"	5/13/63	"	10/31/63
* " -CC&S Interface	B-120409B	"	4/17/63	"	11/4/63
" -Encoder Interface	B-120410B	"	4/10/63	"	8/7/63
" -A/C Interface	B-120411A	"	4/10/63	"	8/7/63
" -Pyro Interface	B-120412A	"	5/3/63	"	7/2/63
* " -DAS Interface	B-120413B	"	5/29/63	"	10/17/63
" -Command OSE	B-120459A	"	4/25/63	"	8/9/63

ENCLOSRE 2
Page 2 of 4

	Item	Dwg. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
	Power-Power Interface	B-120415	3/1/63	6/4/63	F. Smith	
*	" -CC&S Interface	B-120414A	"	6/20/63	"	10/31/63
*	" -Encoder Interface	B-120416B	"	5/23/63	"	10/28/63
*	" -Att. Control Interface	B-120417B	"	6/3/63	"	10/31/63
	" -Pyro Interface	B-120418	"	5/20/63	"	
*	" -S/C Cabling Interface	B-120419A	"	5/23/63	"	10/31/63
*	" -Tape Recorder Interf.	B-120420A	"	5/14/63	"	10/31/63
*	" -DAS Interface	B-120421A	"	5/21/63	"	10/31/63
*	" -Cos Ray Teles. Interf.	B-120422A	"	5/20/63	"	10/31/63
*	" -Cos Dus Det Interface	B-120424A	"	5/20/63	"	10/31/63
*	" -Trap Rad Det Interf.	B-120425A	"	5/20/63	"	10/31/63
*	" Ion Chamber Interface	B-120426A	"	5/20/63	"	10/31/63
*	" -Scan Subsys Interface	B-120427A	"	6/4/63	"	10/31/63
*	" -Plasma Probe Interface	B-120428A	"	5/20/63	"	10/31/63
*	" -Magnetometer Interface	B-120429A	"	7/2/63	"	10/31/63
*	" -UV Photometer Interf.	B-120430A	"	5/21/63	"	10/31/63
*	" -TV Subsys Interface	B-120431A	"	7/2/63	"	10/31/63
	" -Power OSE	B-120460A	"	6/5/63	"	8/22/63
	" -STC J-Box	B-120476B	"	5/15/63	"	8/22/63
*	CC&S-Encoder Interface	B-120433B	"	4/17/63	"	6/12/63
	" -Att. Control Interface	B-120434A	"	4/17/63	"	10/28/63
	" -Pyro Interface	B-120435A	"	4/17/63	"	6/20/63
	" -CC&S OSE	B-120461	"	6/6/63	"	
	" -S/C Cabling Interface	B-120436	"	6/6/63	"	
	" -OSE Via STC J-Box	B-120480	"	6/20/63	"	
*	Encoder-Att Cont Interface	B-120437C	"	4/17/63	"	10/28/63
*	" -Pyro Interface	B-120438B	"	5/3/63	"	10/28/63
*	" -S/C Cabling Interf.	B-120439A	"	6/12/63	"	10/31/63
*	" -Propulsion Interface	B-120440A	"	4/17/63	"	11/6/63
*	" -Therm Cont Interface	B-120441C	"	4/22/63	"	10/28/63
*	" -Tape Recorder Interf	B-120442C	"	4/17/63	"	10/28/63
*	" -DAS Interface	B-120443C	"	4/17/62	"	10/17/63

ENCLOSURE 2
Page 3 of 4

Item	Dwg. Number	Scheduled Rel Date	Actual Rel Date	Responsible	Rev. Date
*Encoder-Trap Rad Det Interf.	B-120445B	3/1/63	4/17/63	F. Smith	10/28/63
* " -Ion Chamber	B-120474A	"	5/2/63	"	10/28/63
* " -Scan Subsystem	B-120444	---	11/6/63		
* " -Magnetomer Interf.	B-120446A	"	4/17/63	"	10/28/63
* " -UV Photometer	B-120475A	"	5/2/63	"	"
* " -TV Subsys Interface	B-120447A	"	4/17/63	"	"
" -Encoder OSE	B-120462	"	4/25/63	"	
" -OSE Via STC J-Box	B-120439A	"	4/24/63	"	6/12/63
*Att. Cont.-S/C Cabling	B-120478A	"	6/10/63	"	11/8/63
* " -Att Cont Interf.	B-120448B	"	6/10/63	"	10/31/63
* " -DAS	B-120477B	"	5/20/63	"	11/1/63
" -OSE Via STC J-Box	B-120449A	"	5/14/63	"	6/12/63
" -Att Cont OSE	B-120463A	"	5/8/63	"	6/21/63
Pyro-Pyro Interface	B-120450	"	5/6/63	"	
" -OSE Via STC J-Box	B-120451A	"	5/6/63	"	6/21/63
" -S/C Cabling	B-120482	---	6/21/63		
* " -Pyro OSE	B-120464B	"	5/6/63	"	10/1/63
* S/C Cabling-Tape Rec Interf.	B-120453	10/31/63			
* Tape Recorder-DAS Interface	B-120457A	3/1/63	7/2/63	"	10/31/63
" " -Tape OSE	B-120473A	"	4/24/63	"	8/22/63
" " -STC J-Box	B-120488	--	8/19/63		
* DAS-Cosmic Dust Detector	B-125671	"	10/31/63	"	
" -Trap Rad Detector	B-120489	"	9/12/63	"	
" -Ion Chamber	B-120490	"	9/19/63	"	
* " -Scan Subsystem	B-125672	"	10/8/63	"	
* " -UV Photometers	B-125673	"		"	
* " -Science OSE	B-125675	"	11/6/63	"	
* " -STC J-Box	B-125674	--	11/6/63	"	

ENCLOSURE 2
Page 4 of 4

Item	Dwg. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
* Cosmic Ray Tel-Science OSE	B-125676	3/1/63	10/28/63	F. Smith	
* Cosmic Dust Det-Science OSE	B-125677	"		"	
* Trap Rad Det-Science OSE	B-25678	"		"	
* Ion Chamber-Science OSE	B-125679	"		"	
* Scan Subsys-Scan Subsystem	B-125680	"	10/28	"	
* " " -Science OSE	B-125681	"	10/29	"	
* " " -STC J-Box	B-120491	--	10/11		
* Plasma Probe - Science OSE	B-125682	"	11/6	"	
* Magnetometer - Magnetomer	B-125683	"		"	
* " -Science OSE	B-125684	"		"	
* UV Photometer-UV Photometers	B-125685	"		"	
* " " -Science OSE	B-125686	"		"	
* TV Subsystem-TV Subsystem	B-125687	"	10/29	"	
* " " -Science OSE	B-125688	"	11/7	"	
* Power OSE-STC J-Box	B-125689				
* CC&S OSE- " "	B-125690		11/12		
* D/E OSE- " "	B-125691				
* A/C OSE- " "	B-125692				
* Pyro OSE- " "	B-125693		11/11		
*STC J-Box-Tape OSE	B-125694				
* " " -Science OSE	B-125695		11/6		

ENCLOSURE 3
Page 1 of 2

OSE FUNCTIONAL SPECIFICATIONS

Item	Spec. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
Introduction	OSE/MC-1-110	3/15/63	6/14/63	H. Phillips	
Design Criteria	" -2-110	3/15/63	6/12/63	H. Phillips	
Design Charac. & Restraints	" -3-110	3/29/63	6/17/63	H. Phillips	
Pwr Source & Bldg Grnd Rqmts	" -3-120	4/22/63	5/20/63	H. Phillips	
System Test Configs & Interfaces	" -3-130	--	7/30/63	H. Phillips	
Central Recorder	OSE/MC-4-120	4/22/63	5/28/63	B. Adams	
Computer Data System	" -4-130	"	6/7/63	R. Stott	
Central Timing Subsystem	" -4-140	"	7/17/63	D. Passell	
Spacecraft Simulator	" -4-160	"	6/1/63	T. Wood	
S/C Hndlg & Positioning Fxtr	" -4-170	"	6/7/63	R. Martin	
Science	OSE/MC-4-210	"	6/19/63	G. Hentosz	
Radio Subsystem	OSE/MC-4-320	"	6/12/63	S. Burks	
Telemetry Subsystem	" -4-321	"	6/15/63	W. Apel	
Command Subsystem	" -4-322	"	6/10/63	A. Spear	
Tape Recorder Subsystem	" -4-323	"	6/20/63	D. Appelton	
Commd. (Read, Write, Verify)	" -4-325	"	6/14/63	R. Lowe	
Ground Telemetry Subsystem	" -4-326	"	6/17/63	R. Balluff	
Attitude Control Subsystem	OSE/MC-4-410	"	6/4/63	J. Petralia	
CC&S Subsystem	" -4-450	"	6/18/63	D. Ross	
Power Subsystem	" -4-460	"	6/17/63	J. Savino	

ENCLOSURE 3
Page 2 of 2

Item	Spec. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
Pyrotechnic	OSE/MC-4-530	4/22/63	6/12/63	L. Moore	
STC Layout & Configuration	Replaced by OSE/MC-3-130				

*Denotes change from report of 10/7/63

ENCLOSURE 5
Page 1 of 2

OSE INTERFACE CIRCUIT DATA SHEETS

Item	*Dwg. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
Index	B-120501A	4/15/63	7/29/63	H. Phillips	8/28/63
C A N C E L L E D					
Radio OSE-Command OSE	B-120503	"	7/18/63	"	
" -RWV	B-120504	"	7/18/63	"	
" -Computer	B-120505	"	7/30/63	"	
" -Central Recorder	B-120506	"	7/18/63	"	
* " -Ground Telemetry	B-120507A	"	7/18/63	"	8/27
* Command OSE-Computer	B-120508A	"	7/22/63	"	9/10
" -RWV	B-120546		7/29/63		
* " -Central Recorder	B-120509A	"	7/22/63	"	9/10
" -GTS	B-120502		8/27/63		
Power OSE-CC&S OSE	B-120510	"	7/29/63	"	
" -Attitude Control OSE	B-120511	"	7/24/63	"	
" -OSE System Wiring	B-120512		7/24/63		
" -Science OSE	B-120514	"	7/30/63	"	
" -Computer	B 120513	"	7/20/63	"	
CC&S OSE-Computer	B-120515	"	7/26/63	"	
Data Encoder-Tape Recorder	B-120530		7/26/63		
*Data Encoder OSE-Computer	B-120526A	"	7/24/63	"	10/9
Data Encoder OSE-Cent. Record.	B-120516	"	7/26/63	"	
*Data Encoder OSE-Grnd. Telemetry	B-120517A	"	7/26/63	"	9/10
Attitude Control OSE-Computer	B-120518	"	7/24/63	"	
Pyro OSE-Computer	B-120519	"	7/20/63	"	
RWV-Computer	B-120523	"	7/26/63	"	
RWV-Central Timing	B-120521A	"	7/20/63	"	9/10
RWV-Ground Telemetry	B-120522A	"	7/20/63	"	9/10

ENCLOSURE 5

Page 2 of 2

Item	Dwg. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
* Computer-Ground Telemetry	B-120524A	4/15/63	7/26/63	H. Phillips	9/10/63
Central Timing-Central Record.	B-120525	"	7/20/63	"	
* " -Grnd Telemetry	B-120532A	"	7/20/63	"	10/24
Tape Recorder-Computer	B-120520	"	7/24/63	"	
" -GTS	B-120527	"	8/27/63	"	
DAS-Computer	B-120535	"		"	
Cosmic Ray-Computer	B-120536	"	8/1/63	"	
Cosmic Dust-Computer	B-120537	"	8/19/63	"	
Trapped Rad-Computer	B-120538	"	8/19/63	"	
Ion Chamber-Computer	B-120539	"	8/19/63	"	
Planet Scan-Computer	B-120540	"	8/19/63	"	
Plasma Probe-Computer	B-120541	"	8/19/63	"	
Magnetometer-Computer	B-120542	"	8/19/63	"	
UV Photometer-Computer	B-120543	"	8/19/63	"	
TV-Computer	B-120544	"	7/31/63	"	
LCE Panel-Computer	B-120545	"	8/20/63	"	
Science OSE-Central Timing	B-120528	"	7/26/63	"	
* " -Ground Telemetry	B-120529A	"	7/26/63	"	9/10
TTY Encoder-Central Timing	B-120534	"	7/24/63	"	
* TTY-Ground Telemetry	B-120531A	"	7/24/63	"	9/10
* Central Recorder-Grn Telem.	B-120533A	"	7/20/63	"	9/10
Digital Class III CDS Input End Circuit	B-120547	"	7/23/63	"	
Digital Class II CDS Input End Circuit	B-120548	"	7/23/63	"	
Digital Class I CDS Input End Circuit	B-120549	"	7/23/63	"	
Analog CDS Input End Circuit	B-120550	"	7/23/63	"	

*Denotes change from report of 10/7/63

ENCLOSURE 6
Page 1 of 2

CONTROL DRAWINGS (ELECTRONIC EQUIPMENT)

Item	Dwg. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
2CF1/2 Filter	D4600577	--	*9/20/63	J. Jodele	
2CS1 Four Port Circ. Switch	J4600481B	4/30/63	5/ /63		8/22/63
2CS2 Five Port Circ. Switch	D4600482B	"	5/ /63	"	8/22/63
2DC1 HGA Directional Coupler	D4600489B	"	5/ /63	"	8/22/63
2DC2 LGA Directional Coupler	D4600488B	"	5/ /63	"	8/22/63
* 2PA1 Power Amplifier	D4600494B	"	5/ /63	"	10/31/63
2PS1 Power Amp. Power Supply	D4600497	"	5/21/63	"	
2RA1 Receiver	D4600487B	"	5/ /63	"	8/29/63
2RA2 Receiver	D4600486B	"	5/ /63	"	8/29/63
2RE1 Exciters	D4600495B	"	5/ /63	"	8/29/63
2TR1 Receiver TR	D4600483A	"	5/10/63	"	6/12/63
2TR2 Exciters TR	D4600496 B	"	5/10/63	"	9/18/63
3A1 Detector #1	D4600501	"	5/6/63	"	
3A2 Detector #2	D4600502	"	"	"	
3A3 Detector #3	D4600503	"	"	"	
3A4 Decoder Program Control	D4600504	"	"	"	
3A5 Decoder #1	D4600505	"	"	"	
3A6 Decoder #2	D4600506	"	"	"	
3A7 Decoder & Power Supply	D4600507	"	"	"	
6A1 PN Generator	D4600508A	"	5/1/63	"	6/12/63
6A2 Mod., Mixer, Transfer Register & Data Selector	D4600509A	"	"	"	6/12/63
6A3/6A4 Analog to Digital Con.	D4600510	"	"	"	
6A5 Event Counters	D4600511	"	"	"	
6A6 Functional Switching	D4600512	"	"	"	
6A7 Decks 100, 110	D4600513	"	"	"	
6A8 Decks 210, 220	D4600514A	"	"	"	6/12/63
6A9 Decks 200, 300	D4600515A	"	"	"	6/12/63
6A10 Decks 40, 41	D4600516A	"	"	"	6/12/63
6A11 Decks 42, 43	D4600517A	"	"	"	6/12/63
6A12 Low Level Amp.	D4600518	"	"	"	
6A13 Power Supply	D4600498	"	6/ /63	"	

ENCLOSURE 6

Page 2 of 2

Item	Dwg. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
* 16A1 Tape Machine	D4600499	4/30/63	6/26/63	J. Jodele	10/10/63
16A2 Tape Electronics #1	D4600500A	"	"	"	"
16A3 Tape Electronics #2	D4600526A	"	"	"	"
16A4 Tape Electronics #3 & TR	D4600527A	"	"	"	"
16A5 Tape Electronics #4	D4600575	"	"	"	
		"			
20A1 DAS #1 Buffer Memory	D4801205B	"	"	"	8/16/63
* 20A2 DAS #2 RT Logic	D4801207 B	"	"	"	11/6/63
* 20A3 DAS #3 NRT Logic	D4801206 B	"	"	"	"
* 20A4 DAS #4 RT Logic	D4801208 B	"	"	"	"
20A5 DAS T/R	D4801230A	"	"	"	8/22/63
* 21A1 Cosmic Ray Telescope	D4801215 B	"	5/30/63	"	11/11/63
* 24A1 Cosmic Dust Detector	J4801224 B	"	6/ /63	"	10/3/63
* 25A1 Trapped Radiation Detec.	J4801225 C	"	6/ /63	"	10/3/63
26A1 Ion Chamber	D4801214A	"	6/ /63	"	8/22/63
26A1 10311 Detector	C4801223	"	6/23/63	"	
		"			
* 31A1 Optics Housing-Long	D4801413 A	"	7/9/63	"	10/10/63
* 31A1 Optics Housing-Short	D4801294 A	"	5/31/63	"	10/10/63
31A2 Scan Electronics & TR	D4801231	"	6/4/63	"	
* 32A2 Plasma Electronics #1	D4801227 B	"	5/ /63	"	9/23/63
* 32A3 Plasma Electronics #2	D4801228 B	"	5/ /63	"	"
* 32A4 Plasma Electronics #3	D4801229 B	"	5/ /63	"	"
33A1 Magnetometer	D4801024B	"	5/9/63	"	9/5/63
* 33A2 Magnetometer Electronics	D4801025 C	"	5/9/63	"	10/24/63
33A3 Magnetometer Electronics	D4801026B	"	4/16/63	"	
* 36A1 Optics Subassembly	D4800925 C	"	2/12/63	"	11/7/63

*Denotes change from last report of 10/7/63

ENCLOSURE 7
Page 1 of 2

S/C CASE HARNESS & SYSTEM CABLING
WIRING FABRICATION DRAWINGS (WIRING DIAGRAMS)

	Item	Dwg. Number	Scheduled Rel. Date	Actual Rel Date	Responsible	Rev. Date
9W1	Upper Ring Harness (Sig)	B4900556	7/8/63	9/6/63	W. Pierce	
9W2	Comm. Case VI Harness	B4900569	6/20/63	9/18/63	T. Cocca	
* 9W3	Comm. and TR Case IV Harn.	B4900568A	6/3/63	6/21/63	T. Spear	9/10/63
9W4	Power Case I Harness	B4900564A	5/20/63	6/12/63	R. Spencer	9/10/63
9W5	CC&S Case VII Harness	B4900570	3/18/63	5/6 /63	E. Greenburg	
*9W6	Encoder Case IV Harness	B4900567A	7/1/63	6/20/63	W. Apel	9/20/63
* 9W7	A/C Case VII Harness	B4900571A	6/3/63	6/20/63	A. Benjamin	10/22/63
9W8	Solar Pnl Sqb Pyro Harn.	B4900558	8/5/63	6/20/63	W. Pierce	
9W9	Upper Ring Harness (Pwr.)	B4900557	7/8/63	9/6/63	W. Pierce	
9W10	Midcourse Mtr Sqb Harn.	B4900575	6/17/63	6/12/63	W. Pierce	
9W11	Midcourse Mtr Inst Harn.	B4900574	6/17/63	6/12/63	B. Schmitz	
9W13	Commd. Recvrs.Case V Harn.	B4900584	6/3/63	9/12/63	T. Cocca	
9W14	Motion Sensor Harness	B4900559	8/5/63	6/20/63	W. Pierce	
9W15/	A/C, 16 Slr Vane	B4900580	7/15/63	9/5/63	W. Pierce	
9W16	Gas System Harness	B4900581	7/15/63	9/5/63	W. Pierce	
9W17	Tape Mach Case V Harness	B4900585	7/1/63	9/10/63	W. Trester	
9W18	Pyro Case I Aux. Harness	B4900583	8/5/63	6/10/63	L. Moore	
9W19	Lower Ring Harness	B4900554	7/8/63	9/11/63	W. Pierce	
9W20	Science Case III Harness	B4900565	7/1/63	9/13/63	R. Ebbett	
9W21	Science Aux. Case III Harn	B4900566	7/1/63	9/13/63	R. Ebbett	
9W22	Upr Science Sig & Pwr Har	B4900562	7/8/63	9/6/63	W. Pierce	
9W23	Lwr Science Sig Harness	B4900560	7/1/63	9/6/63	W. Pierce	

ENCLOSURE 7
Page 2 of 2

	Item	Dwg. Number	Scheduled Rel. Date	Actual Rel.Date	Responsible	Rev. Date
	9W25 Scan Actuator Harness	B4900561	7/1/63	9/8/63	W. Pierce	
*	9W26 Mag. Signal Harness	B4900582 A	7/15/63	9/6/63	W. Pierce	10/11/63
*	9W27 Slr Plsma Intrconnt Har	B4900579	7/1/63	* 11/7/63	R. Ebbett	
	9W29 Magnetometer Coax.	B4900642	--	9/6/63	R. Ebbett	
	28 Science Sqb Pyro Harn.	B4900576	8/5/63	9/6/63	W. Pierce	
*	9W30 Mag Interconnect Harn.	B4900644 A	--	9/10/63	R. Ebbett	10/25/63
	9W31 Scan Platform Sqb Harn.	B4900577	8/12/63	9/6/63	W. Pierce	
	9W33 Scan Electron Intercon.	B4900643	--	9/10/63	R. Ebbett	
	9W34 Magnetometer Coax Line	B4900586	7/15/63	9/6/63	W. Pierce	

*Denotes change from report of 10/7/63

20

APPENDIX E

Change Control Report

Although the total spacecraft freeze was imposed January 1964, the need to resolve spacecraft OSE incompatibility on the ground equipment side of the interface was recognized and the total OSE freeze was deferred until May 1964. Only changes regarded as mandatory for mission success were subsequently permitted, although such changes were still numerous. (Some of the delay in closing out the engineering change requests was attributable to processing time, especially when key individuals were occupied with launch operations.) The total engineering change request listing is contained in this appendix.

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7819	MC	1	97	A	001		A J GALLO	33	A J GALLO	020265		021565		030165	031265											
C7820	MC	1	97	A	001		A J GALLO	33	A J GALLO	020165		021565		030165	031265											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7251MC							J WOLFE			031864		033064	X													

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6572	MC	C								080863	X															
C6503	MC	C									X															
C6570	MC	C								080863	X															
C6521	MC	C									X															
C6573	MC	C								080863	X															
C6568	MC	C								080863	X															
C6535	MC	C									X															
C6553	MC	C									X															
C6541	MC	C									X															
C6569	MC	C								080863	X															
C6522	MC	C									X															
C6578	MC	C								080863	X															
C6638	MC	C								081663	X															
C6629	MC	C								091263	X															
C6628	MC	C								091363	X															

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7560	MC	000					W APEL	33	W APEL	061964		062964		070664	063064	MC 4 321B										
C7584	MC	000					J BOREHAM			062564	X															
C7578	MC	000					R MILES	31	B TRUSCOTT	062464		062564		080164	113064	MC-2-110										
C7602	MC	000					D SCHOFIELD	32	D SCHOLFIELD	062464		070764		071764	120864	MC 4 224B										
C7588	MC	000					R MILES	31	B TRUSCOTT	062564		062564		080164	113064	MC-3-110										
C7700	MC	000					W HOUGH	31	B TRUSCOTT	081164		082064		082764	113064	MC-3-120										
C7563	MC	000					R HOLMAN	32	R HOLMAN	062264		062564		071064	032365	MC-4-221										
C7603	MC	000					D SCHOFIELD			070164	X															
C7469	MC	000					J RANDALL			052764	X															
C7488	MC	000					P LYMAN	31	R RIEDER	060264		060964		062264	073064	MC-3-120A										
C7436	MC	000					R FISHER	35	F RHODES	042264		052764		061064	071364	J8901543										
C7354	MC	000					J MACLAY		J MACLAY	041464		042064		043064	070864	JPL 30250										
C7288	MC	000					S BRUNSTEIN		S BRUNSTEIN	032464		032764		041064	050564											
C7289	MC	000					S BRUNSTEIN		S BRUNSTEIN	032464		032764		041064	052764											
C7486	MC	000					G ERVIN		G ERVIN	052564		060164	X	070164		SPEC 20028										
C7423	MC	000					R FISHER	35	F RHODES	050264		051564		052264	071364	J8901543										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	VOID	DATES: APPROVED OR DISAP-PROVED	DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
07313	MC	001					P LYMAN	35	P LYMAN	052164	X															
07412	MC	001					P LYMAN	35	P LYMAN	052164	X															
07823	MC	001					R DRAPER	29	R DRAPER	031265	X															
06540	MC	001		A	001	001	SPEHALSKI		SPEHALSKI	050863		051063		060363	073063	4190502						06539	06509	06523		
06548	MC	001		A	001	002	MESNARD			081663	X															
06554	MC	001		A	001	003	CHRISTY		CHRISTY	052363		052363		060763	062663	SPEC 31252										
06581	MC	001		A	001	004	JOHNSON		JOHNSON	060363		060563		062663	040764	124337						06540	06509	06660		
06588	MC	001		A	001	005	CONRAD		DRAPER	061163		061163		062163	073063	MC-4-160A										
06610	MC	001		A	001	006	SCHMUECKER		SCHMUECKER	062763		062863		071263	071763	MC-4-520A										
06666	MC	001		A	001	007	NEILSON		NEILSON	080663		080763		080963	080763	B120402A										
06682	MC	001		A	001	008	JODELE		JODELE	081363		081363		090563	120663	31128										
06683	MC	001		A	001	009	DAWE		DAWE	081363		081563		090563	010964	30261						02325				
06619	MC	001		A	001	010	J E MACLAY		J E MACLAY	090563		090563		091963	111363	30251B										
06620	MC	001		A	001	011	J E MACLAY		J E MACLAY	090563		090563		091963	111363	30250B										
06671	MC	001		A	001	012	R F DRAPER		R F DRAPER	081363		082363		090563	100863	MC-4-180A										
06681	MC	001		A	001	013	R F DRAPER		R BARLOW	081463		082363		090563	120463	MC-4-590						06672	06673	06675	06676	06677
06687	MC	001		A	001	014	R F DRAPER		R F DRAPER	081463		082363		091263	092763	MMC-4-190A										
06691	MC	001		A	001	015	G COYLE		G COYLE	073063		082363		091263	102363	MANY						06698	06699	06700	06701	
06698	MC	001		A	001	016	R F DRAPER		R F DRAPER	081963		082363		091263	102963							06691	06699	06700	06701	
06701	MC	001		A	001	017	R F DRAPER		M LLOYD MOORE	081963		082363		091263	091663	MC-4-530A						06691	06698	06699	06700	
06708	MC	001		A	001	018	J JODELE		J JODELE	082963		090463		092763	120663	310UU18										
06722	MC	001		A	001	019	R A NEILSON		R A NEILSON	091163		091563		092063	091663	B120404A					06702					
06721	MC	001		A	001	020	J SCHMUECKER		J SCHMUECKER	090463		091663		092463	110163	MC-4-520B										
06729	MC	001		A	001	021	R F DRAPER		R F DRAPER	091863		091963		100363	100863	MC-4-180A						06728	06729			
06759	MC	001		A	001	022	R MILES		R F DRAPER	100763		100963		102863	021064	MC-4-180B				06824						
06762	MC	001		A	001	023	W APEL		R A NEILSON	100663		100863		102563	110863	MANY										
06772	MC	001		A	001	024	J JODELE		J JODELE	100963		101063		103063	110463	31170A										
06836	MC	001		A	001	025	J A NEILSON		S MITCHELL	103162		110163		110163	110163	MANY										
06851	MC	001		A	001	026	R NEILSON		R NEILSON	110763		110863		112963	031164	MANY										
06855	MC	001		A	001	027	J SCHMUECKER		J SCHMUECKER	111363		111463		120163	122663											
06856	MC	001		A	001	028	J SCHMUECKER		L MITCHELL	111363		111463		120163	062564											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6857	MC	001	A	001	C29	J	SCHMUECKER		R SPEHALSKI	111363		111463		120163	122663	J4101325										
C6858	MC	001	A	001	C30	J	SCHMUECKER		J SCHMUECKER	111363		111463		120163	121663	4600533A										
C6859	MC	001	A	001	C31	J	SCHMUECKER		R SPEHALSKI	111363		111463		120163	122663	J4101304A										
C6868	MC	001	A	001	C32	R	DRAPER		R DRAPER	112063		120563		121163	120463											
C6862	MC	001	A	001	C33	J	MACLAY		J JODELE	111263		120563		121163	070264											
C6885	MC	001	A	001	C34	J	SCHMUECKER		L MITCHELL	121063		122063		011664	062564											
C6869	MC	001	A	001	C35	J	SCHMUECKER		J SCHMUECKER	111863		112063		112263	122763	J4101453A										
C6900	MC	001	A	001	C36	P	LYMAN		P LYMAN	122663		010364		012464	012764	C4101578										
C6904	MC	001	A	001	C37	J	JODELE		J JODELE	121863		121963		011564	012964											
C6923	MC	001	A	001	C38	P	LYMAN		P LYMAN	123063		010264		012464	010964	C4101583										
C6912	MC	001	A	001	C38	J	SCHMUECKER		N JOHNSON	121263		122063		021664	012964	4101309										
C6924	MC	001	A	001	C39	J	SCHMUECKER		W LAYMAN	123063		010264		012464	050164	4101476										
C7389	MC	001	A	001	C39	H	VONDELDEN	35	H VONDELDEN	042964		051564		052564	071564	J4101305										
C6934	MC	001	A	001	C40	P	LYMAN		P LYMAN	010264		010964		012464	012764	C4101581										
C6937	MC	001	A	001	C41	J	MACLAY		J MACLAY	010264		010364		012064	070864	3025082										
C6991	MC	001	A	001	C42	P	LYMAN		P LYMAN	010964		011564		012764	012764	B4101543										
C6936	MC	001	A	001	C45	R	MOORE		R MOORE	010364		012064		021664	031964	J4100556										
C6938	MC	001	A	001	C46	E	FLOYD	35	E FLOYD	011664		012064		020664	061764	4101599										
C6939	MC	001	A	001	C47	L	ELLIOT	35	E FLOYD	010264		011464		012464	061764	B4101569										
C6940	MC	001	A	001	C48	E	FLOYD	35	E FLOYD	011664		012364		012464	061764	J4101551										
C6945	MC	001	A	001	C49	G	COYLE	35	G COYLE	010764		012064		013164	012864	J4101410										
C6989	MC	001	A	001	C50	J	RANDALL		J RANDALL	010964		012864		013164	032564	C4201801										
C6992	MC	001	A	001	C51	P	LYMAN	35	P LYMAN	011064		011364		012464	012764	B4101532										
C6997	MC	001	A	001	C52	R	NORMAN		R NORMAN	011064		011564		043064	040164	8100205										
C7007	MC	001	A	001	C53	J	SCHMUECKER		L MITCHELL	010864		010964		012464	040164	J4101497										
C7023	MC	001	A	001	C54	G	COYLE	35	G COYLE	012064		012364		021064	020564	D4101419										
C7041	MC	001	A	001	C55	E	FLOYD	35	E FLOYD	012364		012764		021064	040664	B4101571										
C7047	MC	001	A	001	C56	J	SCHMUECKER	35	J LANSFORD	010964		012364		020364	062564	4101303										
C7051	MC	001	A	001	C57	J	JODELE		J JODELE	012464		012464		020764	020764	JPL20028B										
C7045	MC	001	A	001	C58	P	LYMAN	35	P LYMAN	012364		013064		021764	020764	D4101603										
C7025	MC	001	A	001	C59	R	SLOAN	31	N HAYNES	012064		021064		022864	122364	MC-4-110						0711	207113			

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 003

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7032	MC	001		A001	C60	R	MOORE		R MOORE	012164		030464		031364	031964	4100563										
C7058	MC	001		A001	C61	R	FISHER	35	R FISHER	012264		021264		022164	030264	J4600572										
C7060	MC	001		A001	C62	J	GOLDSMITH	35	J GOLDSMITH	012964		020764		022064	071564	J4100556										
C7112	MC	001		A001	C63	R	SLOAN		G COYLE	020564		021064		022464	051164	4101418						07025	07113			
C7117	MC	001		A001	C64	J	RANDALL	35	J RANDALL	020664		021464		022864	021764	D4101595										
C7121	MC	001		A001	C65	J	BOREHAM	33	J BOREHAM	020464		021064		022164	060264	D4201820										
C7130	MC	001		A001	C66	E	FLOYD	35	E FLOYD	021464		022064		030764	061764	4101550										
C7135	MC	001		A001	C67	J	SCHMUECKER	35	G COYLE	021764		021864		022864	071564	J4101400										
C7136	MC	001		A001	C68	J	SCHMUECKER	35	J LANSFORD	021364		030364		031364	042964	J4101516										
C7147	MC	001		A001	C69	L	DUMAS	32	R WONG	021364		021864		022864	070864	4801553										
C7148	MC	001		A001	C70	P	LYMAN		P LYMAN	021764		030464		031664	032164	D4101604										
C7154	MC	001		A001	C71	A	HERRIMAN	35	G COYLE	021464		022064		030464	060864	D4101613										
C7183	MC	001		A001	C73	J	RANDALL		J RANDALL	022664		030364		031364	030464	4201724										
C7184	MC	001		A001	C74	G	COYLE	35	G COYLE	022664		030564		031364	051164	MC-4-590										
C7187	MC	001		A001	C75	S	BRUNSTEIN		S BRUNSTEIN	021064		030364		031364	033164	C4600675										
C7188	MC	001		A001	C76	S	BRUNSTEIN		S BRUNSTEIN	021064		030364		031364	033164	J4600670										
C7179	MC	001		A001	C77	J	RANDALL		J RANDALL	022064		031064		032064	061764	J4201710										
C7198	MC	001		A001	C78	B	SEAVER		B SEAVER	030264		031064		032064	031964	4101692										
C7133	MC	001		A001	C79	R	MOORE		R MOORE	021464		031064		031664	031964						07029					
C7030	MC	001		A001	C80	R	MOORE	35	R MOORE	012164		020664		021064	031964	4100558						06913				
C7221	MC	001		A001	C81	R	SPEHALSKI		R SPEHALSKI	030264		031064		032764	072264											
C7210	MC	001		A001	C82	W	HOUGH	35	W HOUGH	030664		031264		033064	041364	J4101597										
C7029	MC	001		A001	C82	R	MOORE	35	R MOORE	012164		020664		021564	031964	4100556						06882				
C7031	MC	001		A001	C83	R	MOORE	35	R MOORE	012164		020664		021564	031964	D4100559						06876				
C7151	MC	001		A001	C84	P	LYMAN		P LYMAN	021764		030364		030764	032164	D4101593										
C7180	MC	001		A001	C85	P	LYMAN		P LYMAN	022064		030364		031364	032164											
C7150	MC	001		A001	C86	E	CASANI		E CASANI	032064		032764		041064	062464	J4101514										
C7211	MC	001		A001	C87	W	HOUGH	35	W HOUGH	030664		031264		040164	041564	J4101309B										
C7182	MC	001		A001	C87	S	BRUNSTEIN	33	S BRUNSTEIN	030964		031664		032764	032464	J4600534B										
C7212	MC	001		A001	C88	W	HOUGH	35	W HOUGH	030664		032164		040164	062464	J4901042										
C7219	MC	001		A001	C89	G	COYLE	35	G COYLE	030964		032164		040164	050664											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 004

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7222	MC	001	A	001	C90	E	CASANI	35	E CASANI	031064		032164		040164	050164	D4101490										
C7223	MC	001	A	001	C91	D	MILLER	35	J JODELE	030464		031764		040164	070764	J4400607										
C7230	MC	001	A	001	C92	P	LYMAN	35	P LYMAN	031164		031764		040164	032164											
C7231	MC	001	A	001	C93	P	LYMAN	35	P LYMAN	031164		032164		040164	032164											
C7236	MC	001	A	001	C94	H	VONDELDEN		H VONDELDEN	030564		031664		033064	072164											
C7275	MC	001	A	001	C95	R	SPEHALSKY		R SPEHALSKY	032364		032764		041064	062464											
C7281	MC	001	A	001	C96	E	CASANI		E CASANI	032464		032764		041064	042964	J4101303										
C7280	MC	001	A	001	C97	J	RANDALL	35	J RANDALL	040164		041364		042064	061764											
C7285	MC	001	A	001	C98	R	MOORE	35	R MOORE	032564		040164		040364	040264	J4101306						07532				
C7286	MC	001	A	001	C99	G	COYLE	35	G COYLE	033064		040464		041764	041764	D4901108										
C7298	MC	001	A	001	1C0	E	CASANI	35	E CASANI	033164		041364		041764	042964	J4101514										
C7310	MC	001	A	001	1C1	E	CASANI	35	E CASANI	040364		041764		042264	042964	J4101303										
C7321	MC	001	A	001	1C2	E	FLOYD	35	E FLOYD	041364		042764		051564	061764	C4101327										
C7340	MC	001	A	001	1C3	A	CONRAD		S MITCHELL	041864		042364		050164	062564	B120412						07341	07342	07343	07344	07345
C7345	MC	001	A	001	1C4	A	CONRAD	31	R DRAPER	041664		042064		051564	122264	MC-4-180B						07340	07341	07342	07343	07344
C7352	MC	001	A	001	1C5	J	RANDALL	35	J RANDALL	042064		050564		051569	050664	J4101306										
C7360	MC	001	A	001	1C6	E	CASANI	35	E CASANI	042364		050564		051564	082464	J4101516										
C7367	MC	001	A	001	1C7	R	DRAPER	35	J JODELE	042364		042564		050664	062264	J4901042										
C7371	MC	001	A	001	1C8	E	FLOYD	35	E FLOYD	042464		050564		051564	061764	J4101553										
C7373	MC	001	A	001	1C9	G	COYLE	35	G COYLE	042464		050564		051964	051164	J4101400A										
C7381	MC	001	A	001	11C	J	RANDALL	35	J RANDALL	042864		050664		052064	061764	4201800										
C7390	MC	001	A	001	111	R	DRAPER	31	R DRAPER	042964		050664		052064	102364	J4900646A						07386	07387			
C7405	MC	001	A	001	112	H	VONDELDEN	35	H VONDELDEN	050664		051564		052564	071764	J4101305										
C7406	MC	001	A	001	113	H	VONDELDEN	35	H VONDELDEN	050664		051564		052564	063064	MC-4-120C										
C7232	MC	001	A	001	114	P	LYMAN	35	P LYMAN	050864		051564		052564	061564	C4101546										
C7312	MC	001	A	001	115	P	LYMAN	35	P LYMAN	050864		051564		052564	061564	C4101581										
C7419	MC	001	A	001	116	H	VONDELDEN	35	H VONDELDEN	051164		052264		060164	071764	4201800						07381				
C7421	MC	001	A	001	117	G	COYLE	35	G COYLE	051164		052064		060564	060264	B4901077A										
C7470	MC	001	A	001	118	P	LYMAN	35	P LYMAN	052264		060264		061964	060864	D4101600										
C7407	MC	001	A	001	12C	E	CASANI	35	E CASANI	050464		061664		062664	062564	B4101746										
C7441	MC	001	A	001	121	E	CASANI	35	E CASANI	051564		061064		062264	090264	C4101525										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 005

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7473	MC	C01		A	001	122	R MOORE	35	R MOORE	052064		060964		061564	082164	D4101692										
C7511	MC	C01		A	001	123	P LYMAN	35	P LYMAN	061064		061664		062664	070864	C4101595										
C7514	MC	C01		A	001	124	P LYMAN	35	P LYMAN	061164		061664		062964	070864	C4101613										
C7516	MC	C01		A	001	125	E FLOYD	35	E FLOYD	061264		061764		070164	082664											
C7528	MC	C01		A	001	126	J RANDALL	35	J RANDALL	061664		061664		061964	061864	4201694										
C7532	MC	C01		A	001	127	D MILLER	35	D MILLER	061764		061764		070664	071764											
C7506	MC	C01		A	001	128	W LAYMAN	35	W LAYMAN	061864		070764		071064	071464	J4201450						07275				
C7549	MC	C01		A	001	129	J RANDALL	35	J RANDALL	062264		070764		071064	082464	4101310										
C7571	MC	C01		A	001	130	P LYMAN	35	P LYMAN	062464		070264		071564	072164	C4901163										
C7587	MC	C01		A	001	131	R FREEMAN		R FREEMAN	070164		070964		072064	071464	A 90537										
C7595	MC	C01		A	001	132	W HOUGH	35	W HOUGH	063064		070264		071564	082164											
C7604	MC	C01		A	001	133	R NORMAN	38	R NORMAN	061964		070264		071364	091464	8100206										
C7606	MC	C01		A	001	134	J CASANI		J JODELE	070264		070664		072464	081764											
C7619	MC	C01		A	001	135	R F MILES	35	E FLOYD	070664		070764		072364	081964	J4801264						07578				
C7620	MC	C01		A	001	136	D LEWIS		J LANSFORD	070964		070964		071764	072364	J 410 1303										
C7625	MC	C01		A	001	137	R NORMAN		R NORMAN	070164		070764		071564	091464	8901984										
C7540	MC	C01		A	001	138	W LAYMAN	35	W LAYMAN	071064		071664		072064	071664	D4101694										
C7577	MC	C01		A	001	139	R MOORE	35	R MOORE	072064		072264		073064	072164	D4101726										
C7605	MC	C01		A	001	140	R SPEHALSKI	35	R SPEHALSKI	071764		072264		073064	082464	J4101300										
C7634	MC	C01		A	001	141	W READ		W READ	071064		071664		073064	072464	C4901158										
C7647	MC	C01		A	001	142	W HOUGH	35	W HOUGH	071564		072064		073064	082464	J4101309										
C7653	MC	C01		A	001	143	P LYMAN	35	P LYMAN	071664		072164		072464	072164	D4101601										
C7671	MC	C01		A	001	144	J CASLER	35	J CASLER	072764		072764		080364	081764	J4801612										
C7683	MC	C01		A	001	145	R MOORE	35	R MOORE	073164		080864		081064	081064	D4101726										
C7686	MC	C01		A	001	146	J RANDALL	35	J RANDALL	073164		080864		081064	081064	J4101300										
C7561	MC	C01		A	001	147	H VONDELDEN	35	H VONDELDEN	081164		081364		082164	081464											
C7714	MC	C01		A	001	148	J RANDALL	35	J RANDALL	081864		082164		082764	082464	J4101700										
C7757	MC	C01		A	001	149	J SCHMUECKER	35	J SCHMUECKER	091164		091564		093064	101264											
C7758	MC	C01		A	001	151	H VONDELDEN	35	H VONDELDEN	091564		092464		093064	102364	J4101713										
C7770	MC	C01		A	001	152	J SCHMUECKER	35	J SCHMUECKER	093064		100164		100964	101264	J4101300										
C7764	MC	C01		A	001	153	J SCHMUECKER	35	J SCHMUECKER	091764		091764		093064	102164	4190502										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 006

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C78C9	MC	0C1	A	0C1	154	J	LANSFORD	35	J RANDALL	101964		102664		103164	102764											
C7734	MC	0C1	A	0C1	155	L	DUMAS	35	H VONDELDEN	102064		102164		102364	102164											
C7782	MC	0C1	A	0C1	156	J	SCHMUECKER	35	J SCHMUECKER	110464		110964		110964	110964											
C6624	MC	0C1	A	0C2	0C1	F	AWCETT		JCDEL	071663		072363			111863	MANY										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7370	MC	002					R DRAPER		I MCWHORTER	042764		042664	X													
C7201	MC	002		PS	1C	001	T COCCA	33	T COCCA	030264		032464		041064	061964	20623A										
C6527	MC	002	A	001	C	001	DRAPER		DRAPER	041563		041763		042963	102963	MANY										
C6527	MC	002	A	001	C	001	DRAPER		DRAPER	041563		041763		042963	102963	MANY										
C6594	MC	002	A	001	C	002	DRAPER		DRAPER	061163		061863		062863	073063	B120406B										
C6606	MC	002	A	001	C	003	CASANI		COCCA	062663		062663		071263	110863	MC-4-320						06603	06605	06607	06608	
C6625	MC	002	A	001	C	004	COCCA		JODELE	071563		072363			082663	C4600489B										
C6626	MC	002	A	001	C	005	COCCA		JODELE	071563		072363			082663	C4600488B										
C6567	MC	002	A	001	C	006	T COCCA			091663	X															
C6723	MC	002	A	001	C	007	R F DRAPER		T COCCA	091163		091263		100363	110863	MC-4-320						06715	06716			
C6718	MC	002	A	001	C	008	W G FAWCETT		R A NEILSON	091363		092063		100263	102163	B120477B										
C6702	MC	002	A	001	C	008	T COCCA		T COCCA	081963		082163		083063	102163	B120404A						06703				
C6724	MC	002	A	001	C	009	W G FAWCETT		R A NEILSON	091363		092063		100263	102163	B120413B										
C6725	MC	002	A	001	C	010	W G FAWCETT		R A NEILSON	091363		092063		100263	102163	B120443C										
C6925	MC	002	A	001	C	011	R NEILSON		S MITCHELL	123063		123163		011064	011664	B120404B										
C7118	MC	002	A	001	C	012	R NEILSON	31	S MITCHELL	020564		020664		020764	021064	B120466										
C7108	MC	002	A	001	C	013	T COCCA	33	T COCCA	013064		020664		022764	031664	B4900569						7109				
C7067	MC	002	A	001	C	014	L DUMAS	35	L DUMAS	013064		020764		022464	032164	4101420										
C7164	MC	002	A	001	C	015	W LAYMAN	35	W LAYMAN	020764		021864		030264	050564	B4600580										
C7174	MC	002	A	001	C	016	T COCCA	33	T COCCA	021264		022064		022864	050664											
C7013	MC	002	A	001	C	017	W LAYMAN		W LAYMAN	022464		031064		032764	050564											
C7238	MC	002	A	001	C	018	R DICKINSON	33	R DICKINSON	031264		031764		040364	042064	C4201825										
C7250	MC	002	A	001	C	019	W LAYMAN		W LAYMAN	031864		032764		041064	050564	J4600534										
C7519	MC	002	A	001	C	019	R DRAPER	35	J JODELE	061164		062264		062564	070764	J4901042						07529	07518	07520	07530	07531
C7520	MC	002	A	001	C	020	R DRAPER	35	J JODELE	061164		062264		062564	070764	J4600521						07529	07518	07519	07522	07530
C7529	MC	002	A	001	C	021	R DRAPER	33	T COCCA	061564		062264		072964	090264	MC-4-320										
C7537	MC	002	A	001	C	022	R DRAPER	31	I MCWHORTER	061664		062464		071464	122864	MC-4-120D						07529	07518	07522	07530	07531
C7530	MC	002	A	001	C	022	R DRAPER	33	T COCCA	061564		062264		062964	070264	B120406										
C7738	MC	002	A	001	C	024	H PHILLIPS	31	G MOORE	090164		090364		090664	090864	B120403										
C7747	MC	002	A	001	C	025	H PHILLIPS	31	G MOORE	091064		091464		092064	091864	B120458										
C7748	MC	002	A	001	C	026	H PHILLIPS	31	G MOORE	090964		091464		091564	102664	B120406										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6895	MC	002		E	001	CC0	J SCHMUECKER		J SCHMUECKER	121663		122063		011664	050564											
C6919	MC	002		E	001	CC1	R DICKINSON		R DICKINSON	121363		122663		011064	031364	J4901148										
C7765	MC	002		E	001	CC2	L DUMAS	35	L DUMAS	092164		100564		100964	110264	J4600550										
C6707	MC	002		E	002	CC0	BRUNSTEIN			082063	X															
C6901	MC	002		E	002	CC1	P LYMAN		P LYMAN	122663		010364		012464	012764	D4101585										
C6902	MC	002		E	002	CC2	P LYMAN		P LYMAN	122663		010364		012464	012764	D4101606										
C7200	MC	002		E	002	CC3	S BRUNSTEIN	33	S BRUNSTEIN	031664	X															
C7290	MC	002		E	002	CC4	S BRUNSTEIN		S BRUNSTEIN	032464		040664		041064	061664	MC-4-320										
C7155	MC	002		W	001	000	J BOREHAM		J BOREHAM	021864		030264		031464	042064	C4901154										
C7688	MC	002		W	001	CC0	A GALBRAITH	33	A GALBRAITH	073164		080364		080564	082564	B4901204										
C7689	MC	002		W	001	CC1	A GALBRAITH	33	A GALBRAITH	073164		060364		080564	081164	B4901210										
C7623	MC	002		W	035	000	A GALBRAITH		A GALBRAITH	070264		070764		072964	081164	B4901209										
C7649	MC	002	A	T	001	CC0	A GALBRAITH	33	A GALBRAITH	070864		071564		072064	083164	D4600592										
C7636	MC	002	C	C	001	CC0	T COCCA	33	T COCCA	071064		071564		072064	071564	4600564										
C6715	MC	002	C	F	001	CC0	T COCCA		J JODELE	080963		091263		100263	093063	J 4901042A										
C6716	MC	002	C	F	001	CC1	R F DRAPER		I L MCWHORTER	091063		091263		100263	100463	MC-4-1208						06715	06723			
C6837	MC	002	C	L	001	CC0	T COCCA		J JODELE	110163		110463		112863	122663	D4600581						06838	06839			
C6838	MC	002	C	L	001	CC1	R F DRAPER		T COCCA	110163		110863		112363	050664							06837				
C6839	MC	002	C	L	001	CC2	R F DRAPER		I L MCWHORTER	110163		111463		112363	011664	MC-4-1200						06837	06838			
C6631	MC	002	C	S	001	CC1	CCCCA		JODELE	072263		073063		081463	082663	B4600481B										
C6664	MC	002	P	A	001	CC0	CCCCA		JODELE	073163		081363		082863	091063	D4600494										
C6665	MC	002	P	A	001	CC1	CCCCA		JODELE	073163		081363		082863	082663	D4600481B										
C6745	MC	002	P	A	001	CC2	T COCCA		J JODELE	100263		101063		102563	110663	D4600494B										
C7368	MC	002	P	A	001	CC3	R DRAPER	33	T COCCA	042464		042564		050664	062864	J46005210						07367	7369	07370		
C7510	MC	002	P	A	001	CC4	T COCCA	33	T COCCA	060264		060964		061564	071564											
C7522	MC	002	P	A	001	CC5	R DRAPER	35	A WILTSEY	061264		062264		062964	072264											
C7607	MC	002	P	A	001	CC6	R DRAPER	33	A WHILTSEY	062064		062464		071464	081864	J9385150C						C7529				
C7690	MC	002	P	A	001	CC7	A WILTSEY	33	A WILTSEY	073164		080364		080564	081164	D9385213										
C7590	MC	002	P	A	002	CC0	A GALBRAITH	33	A GALBRAITH	062464		070264		071464	083164	D4600589A										
C7712	MC	002	P	A	002	CC1	K BOLINE	33	A GALBRAITH	081464		082064		082164	083164	D4600589										
C7323	MC	002	P	S	001	000	K BOLINE	33	A WILTSEY	041364		042564		050864	072264	B9385138										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 003

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7369	MC	C02	P	3	001	C01	R DRAPER	33	A WILTSEY	042464		042564		050664	072264	D4600497										
C7443	MC	C02	P	3	001	C02	A WHITSEY	33	A WHITSEY	051564		052064		052964	072264	D49005										
C7660	MC	C02	P	3	003	C00	F OTT	33	F OTT	071564		071764		081464	082664	D49405B										
C7661	MC	C02	P	3	003	001	F OTT	33	F OTT	071564		080364		081464	111164	D49405B										
C7713	MC	C02	P	3	003	C02	K BOLINE	35	J JODELE	081764		082064		082164	100664	D4600591						07661				
C6643	MC	C02	R	3	001	C01	COCCA		JODELE	072463		073063			091063	D4600486										
C6853	MC	C02	R	3	001	C00	M HOLMES		M HOLMES	110863		111163		112563	061364	J4900586										
C6897	MC	C02	T	3	001	C00	T COCCA	33	T COCCA	121063		011463		012464	032164											
C7239	MC	C02	T	3	001	C01	T COCCA		T COCCA	031064		031664		033064	052764	63-20867D										
C7350	MC	C02	T	3	001	C02	T COCCA	33	T COCCA	041764		052764		061064	060864	D6320681										
C6704	MC	C02	T	3	002	C00	T COCCA	3341	J JODELE	082763		090463		092063	092463	DJ600496 B										
C7465	MC	C02	T	3	002	C01	R CASE	33	R CASE	050464		052064	X													

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6533	MC	003	A	C	C1	C1	NEILSON		NEILSON	050163		050263		050263	050663											
C6591	MC	003	A	C	C1	C2	SPEAR		SPEAR	061263		061763		062263	071063	MC-4-322A										
C6645	MC	003	A	C	C1	C3	SPEAR		NEILSON	072463		073163		080963	080963	B120459A										
C6646	MC	003	A	C	C1	C4	SPEAR		NEILSON	073063		073163			080963	B120459A						06645				
C6662	MC	003	A	C	C1	C5	BENJAMIN		NEILSON	080763		080763		080763	080763	B120411A										
C6878	MC	003	A	C	C1	C6	R FISHER		R FISHER	120363		120563		121963	012164	C4600501										
C6981	MC	003	A	C	C1	C7	R DRAPER		R DRAPER	010864		011064		013164	021864	B120408B										
C6983	MC	003	A	C	C1	C8	R DRAPER		A SPEAR	010864		011064		013164	042964	B4900568						06980	06981	06982		
C7003	MC	003	A	C	C1	C9	A SPEAR	33	A SPEAR	010764		010764		012864	031964	C4600505										
C7268	MC	003	A	C	C1	C1	T SPEAR		R FISHER	022764		032764		040864	050664	J4600584										
C6908	MC	003	A	C	C2	C0	A SPEAR		A SPEAR	121763		122763		011064	031964	B4900568										
C6616	MC	003	A	C	C2	C1	SPEAR		JODELE	070263		071063		072663	072463	4600519A						06617				
C6547	MC	003	A	C	C4	C1	SPEAR		NEILSON	051863		061263		061463	070363	B120403A										
C6550	MC	003	A	C	C4	C2	NIXON		SPEAR	050863		052863		060763	060363							06551				
C6551	MC	003	A	C	C4	C3	NIXON		NIXON	050863		052863		061763	060363	B120413						06550				
C6552	MC	003	A	C	C4	C4	NAY		NEILSON	051663		060563		061063	080763	B120410B						06667				
C6579	MC	003	A	C	C4	C5	SPEAR		NEILSON	052863		061763		062863	080763	B120403A										
C6508	MC	003	A	C	C7	C1	NEILSON		NEILSON	032663		032763			032963											
C7344	MC	003	A	C	C7	C2	A CONRAD	33	A SPEAR	041664		042064		051564	061964	69 28603A						07340	07341	07342	07343	07345

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7787	MC		C04				J RANDALL	35	J RANDALL	010565		011865			011865											
C7698	MC		C04				K LONG		K LONG	081264	X															
C6539	MC		C04	A	001	C01	BARLOW-ELLIOT		BARLOW	043063		050163		051563	060164	4101350										
C6742	MC		C04	A	001	C02	K M DAWSON		R A NEILSON	091663		092663		101763	102363	B120416A										
C6746	MC		C04	A	001	C03	K M DAWSON		R F DRAPER	100263		100363		101763	110863	B120402B										
C6883	MC		C04	A	001	C04	K DAWSON		K DAWSON	121063		121063		061064	020564											
C6913	MC		C04	A	001	C06	J SCHMUECKER		R MOORE	121163		122663		011064	031964	4101309										
C6982	MC		C04	A	001	C07	R DRAPER		K DAWSON	010864		011064		013164	021064	MC-4-460A						06981	06980	06983		
C6994	MC		C04	A	001	C09	K DAWSON	34	K DAWSON	010664		011364		012064	021064	MCP31512										
C7252	MC		C04	A	001	C09	J GOLDSMITH	34	K DAWSON	031864		032464		040364	040364	J4900630										
C7253	MC		C04	A	001	010	J GOLDSMITH	34	K DAWSON	031864		032464		040164	040364	J4400611										
C7254	MC		C04	A	001	C11	J GOLDSMITH	34	K DAWSON	031864		032464		040364	040364	J4900630										
C7462	MC		C04	A	001	012	K DAWSON	34	J GOLDSMITH	052064		052164		060564	071464	J4900630										
C7471	MC		C04	A	001	C13	R NEILSON	31	S MITCHELL	052164		052264		053064	060464	B120484										
C7664	MC		C04	A	001	014	J JUDELE	35	K LONG	072264		072364		073064	072464	JX4400504										
C7685	MC		C04	A	001	C15	K DAWSON	34	K DAWSON	073164		081364		082064	083164	B120416										
C7668	MC		C04	A	007	C00	R MOORE	35	R MOORE	072464		073064		080764	081864	J4100556										
C7138	MC		C04	A	009	C01	K DAWSON		K DAWSON	020664		021964		030264	030264	J4400441										
C6519	MC		C04	A	008	C01	DAWSON			040963	X															
C6525	MC		C04	A	008	C02	DRAPER		DRAPER	041063		041763		050163	082363	MC-4-460										
C6571	MC		C04	A	008	C03	NEILSON		NEILSON	052263		052263		053163	061063	B120415										
C6574	MC		C04	A	008	C04	ACORD		NEILSON	052263		052363		053163	060463	B120417		06615								
C6575	MC		C04	A	008	C05	DAWSON		NEILSON	052163		060363		060363	060363	B120416										
C6586	MC		C04	A	008	C06	DAWSON		DAWSON	060663		061763		062163	062163	B120414										
C6595	MC		C04	A	008	C07	DRAPER		DRAPER	061863		062163		071663	082363	MC-4-460A										
C6597	MC		C04	A	008	C08	DRAPER		DAWSON	062063		062063		071663	102563	MC-4-120B						06598				
C6598	MC		C04	A	008	C09	DRAPER		WONG	062063		062063		071663	011064							06597				
C6599	MC		C04	A	008	C10	DRAPER		DRAPER	061863		062163		071663	082363	MC-4-460A										
C6609	MC		C04	A	008	011	MOORE		MCWHORTER	062463		070163		071963	102863	MC-4-120B										
C6615	MC		C04	A	008	C12	ACORD		DAWSON	070263		070363		071963	090463	MC-4-460A			06574							
C6630	MC		C04	A	008	C13	DRAPER		DRAPER	072363		072563		081463	082363	J4900646						06632				

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6632	MC	004	A00	8C14		DRAPER		SPAULDING	072363		072563		081463	061864							06630				
C6921	MC	004	A00	8C15	K	DAWSON		K DAWSON	122363		010864		011064	020564	J4400441										
C6932	MC	004	A00	8C16	J	CHRISTEY		K DAWSON	122763		010964		012164	021364	C125914										
C7225	MC	004	A00	8C17	J	JODELE	35	J JODELE	031064		031264		032764	071764	J440442										
C7264	MC	004	A00	8C18	K	DAWSON	34	K DAWSON	032364		032464		040864	050664	J4400144H										
C7265	MC	004	A00	8C19	K	DAWSON	34	K DAWSON	032364		032464		040864	050664	J4400144H										
C7266	MC	004	A00	8C20	K	DAWSON	34	K DAWSON	032364		032464		040864	050664											
C7353	MC	004	A00	8C21	K	DAWSON	34	K DAWSON	042164		042964		050764	100764	J4400441										
C7396	MC	004	A00	8C22	K	DAWSON	34	K DAWSON	050664		052164		052764	083164	J4400442H										
C7438	MC	004	A00	8C23	K	DAWSON	34	K DAWSON	051464		052564		060564	083164	J4400441										
C7512	MC	004	A00	8C24	K	DAWSON	34	K DAWSON	061564		061764		070964	083164	J4400442										
C7333	MC	004	A00	8C25	K	DAWSON	34	K DAWSON	052664		060964		061564	070264	J4400442K										
C7517	MC	004	A00	8C26	K	DAWSON	34	K DAWSON	062964		070264		071564	083164	J4400441										
C7679	MC	004	A00	8C27	K	DAWSON	34	K DAWSON	072964		073064		081564	110264											
C7122	MC	004	A01	1C00	K	DAWSON	34	K DAWSON	012364		021064		022764	030264	J4400505D										
C6529	MC	004	A01	1C01		DAWSON		APEL	041963		050363			081363	MC-4-160A										
C6893	MC	004	A01	1C02	K	DAWSON		S MITCHELL	120263		121963		010364	011564											
C6891	MC	004	A01	1C03	K	DAWSON		S MITCHELL	120263		121963		010364	011464											
C6892	MC	004	A01	1C04	K	DAWSON		S MITCHELL	120263		121963		010364	012964	B120408										
C6894	MC	004	A01	1C05	K	DAWSON		S MITCHELL	120263		121963		010364	012964	B120408										
C6920	MC	004	A01	1C06	K	DAWSON		K DAWSON	122363		010864		011064	020564	J4400505										
C7010	MC	004	A01	1C07	K	DAWSON		K DAWSON	011364		011564		012764	030264	4400505										
C7338	MC	004	A01	1C08	K	DAWSON		K DAWSON	041664		051164		052764	083164	J4400505J										
C7395	MC	004	A01	1C09	K	DAWSON	34	K DAWSON	050464		051564		052764	110264	J4400505J										
C7400	MC	004	A01	1C10	K	DAWSON	34	K DAWSON	050664		051564		052764	083164	J4400505J				C7338						
C7778	MC	004	A01	1C11	K	DAWSON	34	K DAWSON	100364		100964		101564	110264						C7400					
C7008	MC	004	A01	2C01	K	DAWSON		K DAWSON	011364		011564		012764	020564											
C7439	MC	004	A01	2C02	K	DAWSON	34	K DAWSON	051464		052264		060564	091864	J4400483										
C7339	MC	004	A01	3C00	K	DAWSON	34	K DAWSON	041664		052264		052764	083164	J4400415										
C6922	MC	004	A01	4C01	K	DAWSON		K DAWSON	121963		010264		012464	070264	MC-4-120B										
C7175	MC	004	A01	4C02	K	DAWSON	34	K DAWSON	021864		022064		030264	040364	MCP31454C										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATI 3/25/65 — STANDARD SUB-SYST REPORT — PAGE NO. 003

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7235	MC		C04	A014	CC3		K DAWSON	34	K DAWSON	031064		031264		032764	040364											
C7272	MC		C04	A014	CC4		W LONG	34	K DAWSON	032364		032564		040364	040364											
C7273	MC		C04	A014	CC5		W LONG	34	K DAWSON	032364		032564		040364	040364											
C7418	MC		C04	A014	CC6		W LONG	34	W LONG	051164		051464		052564	080364	MCP-50024										
C6647	MC		C04	A015	CC0		DAWSON		DAWSON	072363		073163		082163	090463	MC-4-460A										
C6993	MC		C04	A015	CC1		K DAWSON	34	K DAWSON	010664		011464		012064	020564	MCP31267										
C7070	MC		C04	A015	CC2		K DAWSON	34	K DAWSON	020364		020464		021764	030264											
C7071	MC		C04	A015	CC3		K DAWSON	34	K DAWSON	020364		020464		021764	030264											
C7185	MC		C04	A015	CC3		D RITCHIE		D RITCHIE	022664		030164		031664	040364	4400678										
C7072	MC		C04	A015	CC4		K DAWSON	34	K DAWSON	020364		020464		021764	030264											
C7073	MC		C04	A015	CC5		K DAWSON	34	K DAWSON	020364		020464		021764	030264											
C7074	MC		C04	A015	CC6		K DAWSON	34	K DAWSON	020364		020464		021764	030264											
C7355	MC		C04	A015	CC7		K DAWSON	34	K DAWSON	042164		042964		050764	083164	J4400421										
C6515	MC		C04	A017	CC0		APPELTON		DAWSON	051663		060563			090463	MC-4-460A						06583				
C6903	MC		C04	A017	CC1		K DAWSON		K DAWSON	120563		123163		011064	021064	MC-4-460										
C7069	MC		C04	A017	CC2		K DAWSON	34	K DAWSON	020364		021064		021764	030264	D4400407C										
C7163	MC		C04	A017	CC3		K DAWSON	34	K DAWSON	021464		022164		030264	031964	D4400407A										
C7263	MC		C04	A017	CC4		K DAWSON	34	K DAWSON	032364		032464		040864	050664											
C6584	MC		C04	W001	CC1		SCHMUECKER			060663	X															
C6899	MC		C04	A/010	C58		LYMAN		P LYMAN	122663		010363		012464	012764	D4101531										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO	CODE: INSTALT	AREA	SUB SYSTEM	SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	VOID	APPROVED OR DISAPPROVED	DIS.	SCHEDULED COMPLETION	COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	IN FULL: SUPERCEDES	IN PART: SUPERCEDED BY	IN PART: SUPERCEDES	REFERENCE				
C6506MC	005	AC0	1CC	0			CONRAD		HERMAN	032263		03226			051663	4200910										
C6848MC	005	AC0	1CC	1			N HERMAN		N HERMAN	101663		110463		111163	111163	MANY										
C6874MC	005	AC0	1CC	2			S LINGON		S LINGON	112263		010264		012064	051164											
C6946MC	005	AC0	1CC	3			D ROSS		D ROSS	010364		010864		012464	050764	B120480										
C6947MC	005	AC0	1CC	4			D ROSS		D ROSS	010364		010864		012464	030264	B120461										
C6988MC	005	AC0	1CC	5			S LINGON		S LINGON	010764		011464		012464	051164	J4200910										
C7114MC	005	AC0	1CC	6			D ROSS	34	S MITCHELL	020164		021064		022164	031764	B120461										
C7115MC	005	AC0	1CC	7			D ROSS	34	S MITCHELL	020164		021064		022164	031764	B120461										
C7158MC	005	AC0	1CC	8			S LINGON	34	S LINGON	021064		022064		030264	051164	MCC-31040										
C7197MC	005	AC0	1CC	9			S LINGON		S LINGON	022664		030464		031664	051164	J4200938										
C7494MC	005	AC0	1C1	A			CONRAD	34	J ACORD	060164		060864		061564	090964	MC 4 450A										
C7543MC	005	AC0	1C1	2			HERMAN	34	N HERMAN	061764		062564		07 264	070764	MCC-31060										
C7018MC	005	AC0	2CC	0			HERMAN	34	N HERMAN	011664		012064		020764	051164	J4200900						07019				
C6986MC	005	AC0	4CC	1			S LINGON		S LINGON	010764		010864		012264	051164	J4200920										
C6510MC	005	AC0	6CC	1			MCORE		NEILSON	040863		041863			042663											
C6542MC	005	AC0	6CC	2			NEILSON		GREENBERG	050163		050363		051563	102863	J4200909C						06543				
C6543MC	005	AC0	6CC	3			NEILSON		APEL	050163		050363		051563	051663							06542				
C6561MC	005	AC0	6CC	4			GREENBERG		NEILSON	052463	X															
C6562MC	005	AC0	6CC	5			GREENBERG			052463	X															
C6603MC	005	AC0	6CC	6			CASANI		CASANI	062663		062663		071263	011464	MC-3-110						06605	06606	06607	06608	
C6605MC	005	AC0	6CC	7			CASANI		HERMAN	062663		062663		071263	072363	MANY						06603	06606	06607	06609	
C6611MC	005	AC0	6CC	8			GREENBERG		NEILSON	062863		062863		071263	070363	B120409A										
C6728MC	005	AC0	6CC	9			R F DRAPER		N HERMAN	091863		091963		100363	101563	MANY						0672	0672	9		
C6761MC	005	AC0	6C1	0			MILES		J D ACORD	100763		100763		102863	102963	MC-4-450A				06824						
C6842MC	005	AC0	6C1	1			HERMAN		R A NEILSON	110163		110463		111563	110663	B120461A										
C6843MC	005	AC0	6C1	2			HERMAN		R A NEILSON	110163		110463		111563	110663	B120409B										
C7065MC	005	AC0	6C1	3			HERMAN	34	J ACORD	013064		021864		03 264	033164	MC-4-450										
C7297MC	005	AC0	6C1	4			HERMAN	34	N HERMAN	040164		040264		040664	051164	P4900570C										
C7233MC	005	AC0	9CC	0			DRAPER		J JUDELE	031064		031164		032064	062264							07234	07230	07207		
C7279MC	005	AC0	9CC	1			HERMAN		N HERMAN	031864		033164		041364	051164							07292	07294			
C7295MC	005	AC0	9CC	2			FISHER	35	R FISHER	033064		040464		041764	042164	J4201579		07347								

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP. PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7234	MC	0	C5	A	009	CC3	R DRAPER		R DRAPER	031064		040764		042064	122264	J4900646A										
C7347	MC	0	C5	A	009	CC4	F RHODES	35	F RHODES	041664		042064		050464	061664	J4201579			07295							
C7427	MC	0	C5	A	009	CC5	N HERMAN	34	N HERMAN	051164		051464		061564	070764	D4201848										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6532	MC	006	A	001	C	C1	APEL		DRAPER	042463		050363		052063	100863	MC-4-120B										
C6886	MC	006	A	001	C	C2	W APEL		W APEL	120963		122063		010864	052264											
C7011	MC	006	A	001	C	C3	W APEL	33	W APEL	011564		012064		020664	052264	492123										
C7012	MC	006	A	001	C	C4	A CONRAD	33	W APEL	011464		012064		021064	052264							C7004	07015	07020		
C7538	MC	006	A	001	C	C5	R DRAPER	33	W APEL	061564		062264		071464	062264											
C7574	MC	006	A	001	C	C6	W APEL	33	W APEL	062364		062664		071064	072764	TI509633										
C6501	MC	006	A	002	C	C1	NEILSON		NEILSON	032563		032563			032963											
C6512	MC	006	A	002	C	C2	APEL		NEILSON	040263		040463			042663											
C6536	MC	006	A	002	C	C3	APEL		NEILSON	042963		061263			061763	B120442A						C6559				
C6538	MC	006	A	002	C	C4	APEL		NEILSON	051663		052363		051163	070363	B120410A										
C6545	MC	006	A	002	C	C5	APEL		NEILSON	050263		052163		052563	061163	B120416						06546				
C6546	MC	006	A	002	C	C6	APEL		NEILSON	050263		052163		052463	061163							06545				
C6549	MC	006	A	002	C	C7	NIXON		NEILSON	050863		051063		051563	052863	B120443										
C6555	MC	006	A	002	C	C8	APEL		NEILSON	051663		061163		062163	061963	B120433A										
C6556	MC	006	A	002	C	C9	APEL		NEILSON	051663		061063		061963	061963	B120437A										
C6557	MC	006	A	002	C	C10	APEL		NEILSON	051663		061163		062163	061963	B120438A										
C6558	MC	006	A	002	C	C11	APEL		APEL	051663		052363		053163	072963	B120441A										
C6559	MC	006	A	002	C	C12	APEL		NEILSON	051663		052363		053163	061763	B120442A						06536				
C6560	MC	006	A	002	C	C13	APEL		NEILSON	051663		052763		053163	052863											
C6563	MC	006	A	002	C	C14	APEL		NEILSON	051663		052363		053163	061763	B120406A										
C6564	MC	006	A	002	C	C15	APEL		NEILSON	051663		061063		062163	061763	B120439A						06577	06565			
C6565	MC	006	A	002	C	C16	APEL		APEL	051663		052863		061263	072363	B120439A										
C6667	MC	006	A	002	C	C17	NEILSON		APEL	080663		080763		087063	102963	MC-4-321A						06552				
C6705	MC	006	A	002	C	C18	A G CONRAD		W APEL	082663		090463		091863	102863	MC-4-160										
C6580	MC	006	A	002	C	C19	NIXON		NEILSON	052763		052763		053163	052863	B120443A						06580				
C6730	MC	006	A	002	C	C20	R L SICCL		W APEL	082263		091963		100363	102963	MC-4-160										
C6768	MC	006	A	002	C	C21	W APEL		R A NEILSON	100663		100863		102563	110663	B120437C						06767				
C6537	MC	006	A	005	C	C1	APEL		APEL	042963		050363		052063	072363											
C7633	MC	006	A	005	C	C1	R NEILSON	33	W APEL	070864		070964		071764	072464	J492118										
C6511	MC	006	A	006	C	C1	APEL		APPELTON	040263		040463			072363											
C6706	MC	006	A	007	C	C1	HICKEY			082363		083063	X													

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	VOID	DATES: APPROVED OR DISAP. PROVED	DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7283	MC		006		1CC7	CC2	W APEL	33	W APEL	031664		032664		040364	041564											
C7026	MC		006		1CC8	CC0	W APEL	33	W APEL	011364		012364		021064	042364	492174										
C7028	MC		006		1CC8	CC1	R DRAPER	33	W APEL	012164		012464		022064	062564	E492121										
C7052	MC		006		1CC8	CC2	A CONRAD	33	W APEL	013064		020664		021764	062264	J492118										
C7064	MC		006		1CC8	CC3	W APEL	33	W APEL	012964		020664		022764	052264	4801598										
C6505	MC		006		1C13	CC0	APEL		APEL	032963		032963			042563							06517				
C6517	MC		006		1C13	CC1	APEL		DRAPER	042363		042563			042563							06505				
C7319	MC		006		1C13	CC2	W APEL	33	W APEL	031664		041764		043064	062564	T1492197										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 2/25/65 STANDARD SUB-SYST REPORT PAGE NO. 001

NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	VOID	DATES: APPROVED OR DISAP. PROVED	DIS	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7502MC		007				T	DONLIN			061064	X															
C7499MC		007				G	COURVILLE			060964	X															
C7509MC		007				T	DONLIN			060664	X															
C7270MC		007	PC	C	2W		BENJAMIN		B BROCKSIEPER	031864		033164		040164	061764	J4201575										
C7269MC		007	PC	1C	0T		DONLIN	34	T DONLIN	031764		032464		040164	061664	4201545										
C7816MC		007	7A1		B		BROCKSIEPER	34	B BROCKSIEPER	011265		011365		011565	011365											
C6518MC		007	ACC	1C	01		ACORD			040963		041863	X													
C6530MC		007	ACC	1C	02		NEILSON		NEILSON	041963		041963		042963	041963											
C6589MC		007	ACC	1C	03	C	CORRAD		DRAPER	061163		061763		062163	073063	E120437A										
C6607MC		007	ACC	1C	04	C	ASANI		BENJAMIN	062663		062663		071263	121663							C6603	C6605	C6606	C6608	
C7711MC		007	ACC	1C	04	W	BROCKSIPER		W BROCKSIPER	081464		082664		093064	102364	E4201541										
C6668MC		007	ACC	1C	05	C	ASANI		ACORD	080563		080763		081963	102963	MC-4-120B										
C6727MC		007	ACC	1C	06	M	EISENHOLDER		W BENJAMIN	091163		091963		100363	121663	MC-4-410						C6728	C6729			
C6754MC		007	ACC	1C	07	R	MILES		J D ACORD	100463		100763		102163	121663	MC-4-410A				C6824						
C6717MC		007	ACC	1C	08	W	BENJAMIN		R A NEILSON	090663		091263		092763	100363	B120437B										
C6824MC		007	ACC	1C	09	R	MILES		J D ACORD	101863		102163		102863	121663						C6754					
																					C6759					
																			C6761							
C6876MC		007	ACC	1C	10	J	RANDALL		J RANDALL	112663		120563		121963	012864											
C6865MC		007	ACC	1C	11	J	ACORD		J ACORD	111863		112063		121063	122663											
C6914MC		007	ACC	1C	12	J	RANDALL		J RANDALL	122063		010264		012464	031764	C4201724										
C6915MC		007	ACC	1C	13	J	RANDALL	J	RANDALL	122063		010264		012464	031764	J4201710										
C6918MC		007	ACC	1C	14	L	DUMAS		L DUMAS	122363		010264		012464	030464	J4101325										
C6941MC		007	ACC	1C	14	J	DAHLGREN		J DAHLGREN	122464		010364		020164	072764	J4201382										
C7038MC		007	ACC	1C	15	A	SPEAR	31	R NEILSON	012264		012364		012364	012364	B120411										
C7110MC		007	ACC	1C	16	A	DAVIS	34	A DAVIS	013164		020564		022164	101364											
C7055MC		007	ACC	1C	17	E	DAVIS	34	E DAVIS	012764		020664		021764	080364	4201486										
C7119MC		007	ACC	1C	18	T	DONLIN	34	T DONLIN	012464		020764		022464	123164	4201545										
C7127MC		007	ACC	1C	19	J	ACORD	34	W BENJAMIN	021064		021764		030364	120864	J4201509M						07126				
C7132MC		007	ACC	1C	20	J	SCHMUECKER	35	H VONDELDEN	020764		021364		030164	071764	4101309										
C7140MC		007	ACC	1C	21	J	ACORD	34	J ACORD	021264		022064		030164	033164	B49C0571										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DAT 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7141	MC	007	A	C01	C22	J	ACORD	34	J ACORD	021264		021964		030264	033164	C4201531										
C7142	MC	007	A	C01	C23	F	SCHUTZ		G HOOPER	021364			X													
C7192	MC	007	A	C01	C24	L	DUMAS		L DUMAS	022564		030364		031364	042964	4201450										
C7037	MC	007	A	C01	C25	J	RANDALL		J RANDALL	012264		020664		021764	032564	C4201801										
C7226	MC	007	A	C01	C26	J	DAHLGREN	34	J DAHLGREN	031064		031264		041264	100664	C4201384										
C7227	MC	007	A	C01	C27	J	DAHLGREN	34	J DAHLGREN	031064		031264		041264	100964	C4200609B										
C7228	MC	007	A	C01	C28	J	DAHLGREN	34	J DAHLGREN	030664		031264		041564	100964	J8200978										
C7229	MC	007	A	C01	C29	J	DAHLGREN	34	J DAHLGREN	030664		031264		041564	102064	C4201773										
C7246	MC	007	A	C01	C30	J	DAHLGREN		J DAHLGREN	031764		031964		032464	092564	C4201392										
C7247	MC	007	A	C01	C31	J	DAHLGREN		J DAHLGREN	031764		031964		032464	102064	J8200981										
C7249	MC	007	A	C01	C32	P	HAND	31	P HAND	031764		032464		040364	120864	J4201375A										
C7291	MC	007	A	C01	C34	T	DONLIN	34	T DONLIN	032464		040464		041364	061664	4201545										
C7306	MC	007	A	C01	C39	J	DAHLGREN	34	J DAHLGREN	040164		040464		041564	101264	C8201300										
C7322	MC	007	A	C01	C36	J	DAHLGREN	34	J DAHLGREN	041364		041764		042764	100564											
C7375	MC	007	A	C01	C37	T	DONLIN		T DONLIN	042764		042964		050164	071764	J4201545						C7698	07697			
C7332	MC	007	A	C01	C37	J	DAHLGREN	34	J DAHLGREN	042064		042964		051564	092564	J4201381										
C7382	MC	007	A	C01	C38	H	VONDELDEN	35	H VONDELDEN	042964		050564		051864	062264	C4101687										
C7401	MC	007	A	C01	C39	W	BENJAMIN	34	W BRECKSIEPER	050164		050564		NA	061664	J4201408										
C7402	MC	007	A	C01	C40	W	BENJAMIN	34	W BRECKSIEPER	050164		050564		NA	061664	J4201420										
C7403	MC	007	A	C01	C41	W	BENJAMIN	34	W BRECKSIEPER	050164		050564		051564	061664	J4201413L										
C7457	MC	007	A	C01	C42	W	BENJAMIN	34	W BRECKSIEPER	051964		052064		061964	083164	J4201406										
C7507	MC	007	A	C01	C44	J	DAHLGREN	34	J DAHLGREN	060964		061764		062264	090864	J8201002										
C7556	MC	007	A	C01	C46	A	CALABRESE	31	S MITCHELL	061864		062564		070664	070264	E120477										
C7616	MC	007	A	C01	C47	W	BENJAMIN	34	W BRECKSIEPER	070764		071364		071764	071564	J4201410										
C7717	MC	007	A	C01	C48	W	BRECKSIEPER	34	W BRECKSIEPER	082764		090864		091564	110964	J4201528										
C7751	MC	007	A	C01	C49	W	BRECKSIEPER	34	W BRECKSIEPER	091764		092264		101564	121164											
C7760	MC	007	A	C01	C50	W	BRECKSIEPER	34	W BRECKSIEPER	091764		092464	X													
C7761	MC	007	A	C01	C51	D	DAVIS		D DAVIS	091064		092264		093064	101964	J4201453										
C7769	MC	007	A	C01	C52	L	SCHMIDT	34	L SCHMIDT	092964		100164		100964	120464	C4201802										
C7767	MC	007	A	C01	C53	W	BRECKSIEPER		W BRECKSIEPER	092364		100564		101564	110264	J4201426										
C7771	MC	007	A	C01	C54	W	BRECKSIEPER	34	W BRECKSIEPER	093064		100264		100764	121164	J4201413										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65 — STANDARD SUB-SYST REPORT — PAGE NO. 003

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP. PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7773	MC	007	A	C01	C55	L	SCHMIDT	34	L SCHMIDT	100264		100564		101264	120464	J4201450						07761				
C7776	MC	007	A	C01	C56	L	SCHMIDT	34	L SCHMIDT	100564		100664		101564	120464	J4201638										
C7781	MC	007	A	C01	C57	W	BROCKSIEPER	34	W BROCKSIEPER	102664		102764		110164	110964											
C7784	MC	007	A	C01	C58	L	SCHMIDT	34	L SCHMIDT	120264		120464		121064	122064											
C7691	MC	007	A	C02	C00	P	HAND	34	P HAND	073064		080364		0[illegible]764	113064	J4201370										
C7378	MC	007	W	C01	C00	J	DAHLGREN	34	J DAHLGREN	042864		050564		051964	093064	C4201803										
C6864	MC	007	C	S00	8C00	J	SCHMUECKER		J SCHMUECKER	111863		120563		121463	062564											
C7181	MC	007	C	S00	8C01	L	SCHMIDT	34	L SCHMIDT	021464		022164		030264	070664	C4201797										
C7299	MC	007	C	S00	8C02	E	DAVIS	34	E DAVIS	030664		040864		042264	080364	4201829										
C7327	MC	007	C	S00	8C03	E	DAVIS	34	E DAVIS	032464		041564		041764	080364	4201455										
C7363	MC	007	C	S00	8C04	R	SICOL		R SICOL	042364		050164	X													
C7409	MC	007	C	S00	8C05	R	SICOL	34	R SICOL	050764		050864		052164	080364				07363							
C7458	MC	007	C	S00	8C06	E	DAVIS	34	E DAVIS	050464		052064		060564	080364											
C7466	MC	007	C	S00	8C07	E	DAVIS	34	E DAVIS	050464		052064		060564	080364	J4201453										
C7515	MC	007	C	S00	8C08	E	DAVIS		E DAVIS	060864		061964		063064	080364						07458					
C7542	MC	007	C	S00	8C09	R	SICOL	34	R SICOL	061664		061764		07[illegible]164	080364	J4201453										
C7567	MC	007	C	S00	8C10	R	SICOL		R SICOL	061764		062264		07[illegible]664	101964	J4201453										
C7662	MC	007	C	S00	8C11	E	DAVIS	34	E DAVIS	072164		072164		073064	101964	J4201852										
C7682	MC	007	C	S00	8C12	E	DAVIS		E DAVIS	072864		081964		082464	101964	C4201491										
C7772	MC	007	C	S00	8C13	R	SICOL		R SICOL	092864		100164		100964	111264	IL4201453										
C7768	MC	007	C	S00	8C14	R	SICOL		R SICOL	092564		100564		100964	111264	J4201453										
C6671	MC	007	E	D00	6C00	G	SHIMA		W BENJAMIN	112263		112663			020564	B120437										
C7044	MC	007	E	D00	6C01	G	SHIMA	34	G SHIMA	012164		012464		021064	080664	J4201812										
C7324	MC	007	E	D00	6C02	L	SCHMIDT	34	L SCHMIDT	041464		042764		050164	070664	J4201450										
C7364	MC	007	E	D00	6C03	G	SHIMA		G SHIMA	042364		042364		05[illegible]764	070764	J4201625										
C7445	MC	007	E	D00	6C04	H	VONDELDEN	35	H VONDELDEN	050564		051564		052564	071764	J4190581										
C7410	MC	007	G	A00	1C00	J	DAHLGREN	34	J DAHLGREN	042664		051564		052464	100264	J4201381										
C7411	MC	007	G	A00	1C01	J	DAHLGREN	34	J DAHLGREN	042664		051564		052464	102964	J4201483										
C7430	MC	007	G	A00	1C02	J	DAHLGREN	34	J DAHLGREN	051364		060464		061564	092564	C4201788										
C7431	MC	007	G	A00	1C03	J	DAHLGREN	34	J DAHLGREN	051364		060464		061564	090864	J4201381										
C7455	MC	007	G	A00	1C04	J	DAHLGREN	34	J DAHLGREN	060464		060464		061964	100764	4201776										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65 — STANDARD SUB-SYST REPORT — PAGE NO. 004

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	VOID	DATES: APPROVED OR DISAP-PROVED	DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7454	MC		C07	GA	001	CC5	J DAHLGREN	34	E KOCH	060464		060864		060064	100264	J4201381										
C7503	MC		C07	GA	001	CC6	J DAHLGREN	34	J DAHLGREN	062364		062564		080164	093064											
C7575	MC		C07	GA	001	CC7	J ACORD	34	J DAHLGREN	062364		062564		071064	100664	J4201381										
C7586	MC		C07	GA	001	CC8	J DAHLGREN	34	J DAHLGREN	062964		071064		071764	100764	J8201002										
C7624	MC		C07	GA	001	009	J DAHLGREN	34	J DAHLGREN	070764		071564		072864	100764	J4201777										
C7644	MC		C07	GA	001	C10	J DAHLGREN	34	J DAHLGREN	070164		071364		071564	100264	J4201381										
C7645	MC		C07	GA	001	010	J DAHLGREN	34	J DAHLGREN	071364		071364		071564	092964	J4201784										
C7611	MC		C07	GA	001	C11	J DAHLGREN		J DAHLGREN	070264		071664		072064	100664	J4201382										
C7631	MC		C07	GA	001	012	J DAHLGREN		J DAHLGREN	070864		072164		072564	100764	J4201777										
C7646	MC		C07	GA	001	012	J DAHLGREN		J DAHLGREN	071564		071564		072564	100964	J4201776										
C7658	MC		C07	GA	001	013	J DAHLGREN		J DAHLGREN	072064		072264		073164	102964											
C7663	MC		C07	GA	001	014	J DAHLGREN		J DAHLGREN	072164		072764		072964	100264											
C7667	MC		C07	GA	001	015	J DAHLGREN		J DAHLGREN	072264		072964		073164	100564	C4202094										
C7673	MC		C07	GA	001	016	J DAHLGREN		J DAHLGREN	072764		072964		081064	100764	D4201803										
C7681	MC		C07	GA	001	017	J DAHLGREN		J DAHLGREN	072964		073064		080364	102164	J4201777										
C7696	MC		C07	GA	001	019	J DAHLGREN	34	J DAHLGREN	080864		081864		082564	100564	D4201386										
C7706	MC		C07	GA	001	C20	J DAHLGREN	34	J DAHLGREN	081264		081864		081964	100964	J4201382										
C7708	MC		C07	GA	001	021	J DAHLGREN	34	J DAHLGREN	081364		081964		081864	100264	J4201381										
C7710	MC		C07	GA	001	022	J DAHLGREN	34	J DAHLGREN	081464		081964		082064	122264	C4202097										
C7703	MC		C07	GA	001	023	J DAHLGREN	34	J DAHLGREN	081264		081964		081964	100964							07624				
C7736	MC		C07	GA	001	C24	J DAHLGREN	34	J DAHLGREN	080164		090364		091564	092564	J4201776										
C7763	MC		C07	GA	001	025	J DAHLGREN	34	J DAHLGREN	091864		092264		092264	102064	J4201382										
C7759	MC		C07	GA	001	026	J DAHLGREN	34	J DAHLGREN	092464		092964		100964	102064	D4201389										
C7766	MC		C07	GA	001	027	J DAHLGREN		J DAHLGREN	092264		100264		100264	100564	J4201381										
C7775	MC		C07	GA	001	C28	J DAHLGREN		J DAHLGREN	100764		100864		100864	101264	D4201389										
C7779	MC		C07	GA	001	029	J SCHMUECKER		J DAHLGREN	101264		101364		101964	122264	J4201381										
C7721	MC		C07	GA	001	C30	J DAHLGREN		J DAHLGREN	092264		100964		092864	102764	J4201776										
C7731	MC		C07	GA	002	CC0	J DAHLGREN	34	J DAHLGREN	090164		090364		090864	091564							07229	07246	07322	07376	07380
C7695	MC		C07	GA	002	018	J DAHLGREN	34	J DAHLGREN	080864		081964		082564	100264	C4202074										
C7376	MC		C07	GM	001	CC0	J DAHLGREN	34	J DAHLGREN	042864		050564		051864	110264	C4201617					07322					
C7464	MC		C07	GS	001	CC0	L SCHMIDT	34	L SCHMIDT	051264		060264		060964	070664	D4201610										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 005

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP. PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6582	MC	007	M	G001	CC0	C	CONRAD		CONRAD	052863		060463		061263	080263	MC-4-180										
C6898	MC	007	M	G001	CC1	G	COYLE		G COYLE	121863		122663		012064	020664	4101400						06720				
C7572	MC	007	M	G001	CC2	R	MILES		G COYLE	062464		062564		070664	081264	MC-4-190										
C7059	MC	007	P	C001	CC0	T	DONLIN	34	T DONLIN	012464		012964		021564	071764	4201545										
C7129	MC	007	P	C001	CC1	L	DUMAS	35	L DUMAS	020364		021364		022564	030464	4201575										
C7316	MC	007	P	C001	CC2	W	BENJAMIN	34	B BROCKSIEPER	040864		041364		042764	061764	J4201575										
C7320	MC	007	P	C001	CC3	T	DONLIN	34	T DONLIN	041364		041564		043064	061664											
C7380	MC	007	P	T001	CC0	J	DAHLGREN	34	J DAHLGREN	042964		050564		051364	093064	C4202075										
C6711	MC	007	R	S002	CC1	W	BENJAMIN		W BENJAMIN	090663		091263		093063	020564							06712	06713	06714		
C6712	MC	007	R	S002	CC2	W	BENJAMIN		R A NEILSON	090663		091263		092763	100363	B120448A						06711				
C6714	MC	007	R	S002	CC3	W	BENJAMIN		R F DRAPER	090663		091263		092763	100863	MC-4-120B						06711				
C7675	MC	007	S	G001	CC0	L	SCHMIDT	34	L SCHMIDT	072864		072964		081164	120464	C4200006										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6782	MC		C08	A	001	C00	M L MOORE		M L MOORE	101063		101463		113063	120963	PL4400608										
C6731	MC		C08	A	001	C00	M L MOORE		R F DRAPER	091963		100363		101663	110763	B120464B										
C6509	MC		C08	A	001	C00	MOORE		MOORE	040363		042663		050863	082763	MC-4-530A				06602						
C6520	MC		C08	A	001	C01	WUEST			052963	X					4400608										
C6528	MC		C08	A	001	C02	WUEST			060363	X					J4400608										
C6544	MC		C08	A	001	C03	NEILSON		MOORE	050263		050263		051563	110163			06672		06673		06509				
C6596	MC		C08	A	001	C04	WUEST		WUEST	061763		061963		070863	082763	MC-4-530A						06507				
C6602	MC		C08	A	001	C05	MOORE		NEILSON	062063		062163		062963	062163	B120435A					06509	06604				
C6604	MC		C08	A	001	C06	MOORE		NEILSON	062063		062163		062963	111563					06673	06509	06602				
C6771	MC		C08	A	001	C07	M L MOORE		M L MOORE	091363		101063		101863	110663	PL4400608										
C6877	MC		C08	A	001	C08	R WEIHER		R WEIHER	120263		120563		122063	081764											
C7040	MC		C08	A	001	C09	W WUEST	35	W WUEST	011464		012364		021064	081064	MCE50203										
C7057	MC		C08	A	001	C10	R NEILSON	31	S MITCHELL	011664		012964		012964	012964	B120484										
C7189	MC		C08	A	001	C11	M MOORE	35	M MOORE	022164		032564		033064	061764											
C7199	MC		C08	A	001	C12	M MOORE	35	M MOORE	030364		031664		032764	061764	PL4400608E										
C7326	MC		C08	A	001	C13	A CONRAD	35	J RANDALL	040964		042064		050964	061764	B120438										
C7341	MC		C08	A	001	C15	A CONRAD	35	M MOORE	041664		042064		051564	071764	J4400608						07340	07342	07343	07344	07345
C7383	MC		C08	A	001	C16	M MOORE	31	S MITCHELL	042864		050664		051564	051164	B120464										
C7497	MC		C08	A	001	C17	M MOORE	35	M MOORE	060864		060964		062664	071764	J4400608										
C7566	MC		C08	A	001	C18	M MOORE	38	M MOORE	062264		062564		070664	071764	J4400612										
C7573	MC		C08	A	001	C19	M MOORE	38	M MOORE	062264		062664		071064	071064	J4400612										
C7599	MC		C08	A	001	C20	R DRAPER	31	S MITCHELL	062564		070264		070964	070264	B120464C										
C6679	MC		C08	A	001	C00	R F DRAPER		C COYLE	081463		082363		090563	101763	MANY						06672	06673	06675	06676	06677
C6673	MC		C08	A	001	C01	R F DRAPER		R F DRAPER	081463		082363		090563	111563	MANY						06675	06676	06677	06678	06679
C6678	MC		C08	A	001	C02	R F DRAPER		J RANDALL	081463		082363		090563	102863	C4901122						06672	06673	06675	06676	06677
C6680	MC		C08	A	001	C03	R F DRAPER		M LLOYD MOORE	081463		082363		090563	011464	MC-4-530A						06672	06673	06675	06676	06677
C6672	MC		C08	A	001	C04	J RANDALL		R F DRAPER	081363		082363		091363	100863	MC-4-18CA						06673	06675	06676	06677	06678
C7293	MC		C08	P	H001	C00	A BENEDICT	35	A BENEDICT	032664		040764		041764	071764	D4901124										
C7398	MC		C08	P	H001	C01	A BENEDICT	35	A BENEDICT	043164		050564		051564	080664	D4901134										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6608	MC	C09	A001	C01			CASANI		PIERCE	062663		062663		071263	101063	B4900571A						C6603	06605	06606	06607	
C6776	MC	C09	A001	C02			R OTAMURA		R OTAMURA	100963		101863		102563	102263	J4900548A										
C6907	MC	C09	A001	C03			J CASANI		R STICKLEY	122063		122063		011364	010764											
C7241	MC	C09	A001	C04			W PIERCE		W PIERCE	031264		031964		040164	070264											
C7259	MC	C09	A001	C05			R DRAPER	31	S MITCHELL	031964		032164		033164	102364							07258	07260			
C7597	MC	C09	A001	C06			P STEINBROOK	35	W PIERCE	070764		070864		072464	082564											
C7601	MC	C09	A001	C07			R SPEHALSKI	35	R SPEHALSKI	071664		072164		073064	082464	J4101724										
C7744	MC	C09	A001	C08			J SCHMUECKER	35	W PIERCE	090464		090864		092764	100564	4900550										
C7416	MC	C09	E001	C00			R SPEHALSKI	35	R SPEHALSKI	051164		052264		060564	062464	J4900555										
C6779	MC	C09	W001	C00			R F DRAPER		W PIERCE	101163		102963		110863	122763							06749	06778	06780		
C6655	MC	C09	W001	C00			DRAPER		PIERCE	073063		080263		082863	101063	B4900564A						06621	06649	06650	06651	06652
																						06653	06654	06655	06656	06657
																						06634				
C6640	MC	C09	W001	C01			MILES			081663X												06527				
C6753	MC	C09	W001	C02			R F DRAPER		W PIERCE	102863		110463		110863	111463	B4900556						06981	06982	06983		
C6980	MC	C09	W001	C03			R DRAPER		W PIERCE	010964		011064		013164	040164	B4900556										
C7005	MC	C09	W001	C04			A CONRAD	35	W PIERCE	012064		012364		021064	040164	B4900556										
C7017	MC	C09	W001	C05			R DRAPER	35	W PIERCE	011764		011764		021064	040164	B4900556						07020				
C7027	MC	C09	W001	C06			R DRAPER	35	W PIERCE	012164		012464		022064	040164	B4900556										
C7034	MC	C09	W001	C07			R DRAPER	35	W PIERCE	012164		012464		022064	040164	B4900556						07035				
C7242	MC	C09	W001	C08			W PIERCE		W PIERCE	031064		031664		041064	051164											
C7343	MC	C09	W001	C09			A CONRAD	35	W PIERCE	041664		042064		051564	061664							07340	07341	07342	07342	07344
C7386	MC	C09	W001	C10			R DRAPER	35	W PIERCE	042964		050664		052064	061664	B4900556B										
C7489	MC	C09	W001	C11			R DRAPER	31	S MITCHELL	060364		060864		061864	061064											
C7518	MC	C09	W001	C12			R DRAPER	35	W PIERCE	061164		062264		062564	070764	J4900548						07529	07521	07531	07519	07520
																						07522	07530	07531	07537	07539
C7642	MC	C09	W001	C13			R DRAPER	35	W PIERCE	071164		071664		072064	080764	B4900556						07641	07643			
C7719	MC	C09	W001	C14			J SCHMUECKER	35	W PIERCE	081964		082964		082964	092164											
C6656	MC	C09	W002	C00			DRAPER		COCCA	073063		080263		082863	102163							06621	06649	06650	06651	06652
																						06653	06654	06655	06656	06657
C6854	MC	C09	W002	C00			T COCCA		T COCCA	111163		111163		112563	031664	B4900569										
C7521	MC	C09	W002	C01			R DRAPER	33	T COCCA	061164		062264		062564	081064	B4900569						07529	07518	07520	07522	07530

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7643	MC		009		W002	C02	R DRAPER	33	T COCCA	071164		071164		072664	081064	B4901212						07641	07642			
C6617	MC		009		W003	C00	SPEAR		PIERCE	070263		071063		072663	102863	8901875						06616				
C6752	MC		009		W003	001	R F DRAPER		A SPEAR	102863		110463		110863	031264	B4900568A						06527				
C7033	MC		009		W003	C02	R DRAPER	33	A SPEAR	012164		012464		022064	031964	B4900568						07034	07035			
C7387	MC		009		W003	003	R DRAPER	33	A SPEAR	042964		050164		052064	080764	B4900568A										
C7702	MC		009		W003	004	R DRAPER	33	A SPEAR	081064		081464		082664	093064	B4900568										
C6676	MC		009		W004	000	R F DRAPER		R SPENCER	081463		082363		090563	110463	B4900564A						06672	06673	06675	06677	06678
C6657	MC		009		W004	C00	DRAPER		SPENCER	073063		080263		082863	091963	4900564A						06621	06649	06650	06651	06652
C6648	MC		009		W004	C00	DAWSON		SPENCER	072563		073063		082163	091963	4900564A										
C6686	MC		009		W004	C00	R OTAMURA		R F DRAPER	081363		082363		090563	111563	B120402B										
C6703	MC		009		W004	C00	T COCCA		K M DAWSON	081963		082163		083063	102263	B120404A						06702				
C7342	MC		009		W004	C01	A CONRAD	34	K DAWSON	041664		042064		051564	083164	B4900564						07340	07341	07343	07344	07345
C6685	MC		009		W005	C00	N HERMAN		N HERMAN	081363		082363		092063	102863	J4200909										
06873	MC		009		W005	C01	S LINGON				X															
07036	MC		009		W005	C02	J CHARLES	35	W PIERCE	012164		012464		022464	060164	B4900556						06603	06608			
C7205	MC		009		W005	C03	R DRAPER	34	N HERMAN	031264		032464		032064	061364							07203	07204	07206	07207	07233
C7292	MC		009		W005	C04	A CONRAD		N HERMAN	040964		042064		042464	051164	B4900570						07279				
C7294	MC		009		W005	005	A CONRAD		W PIERCE	040964		042064		042464	061964	B4900554						07279	07292			
C6654	MC		009		W006	C00	DRAPER		APEL	073063		080263		082863	091863	B4900567A						06621	06649	06650	06651	06652
																						06653	06654	06655	06656	06657
06684	MC		009		W006	C00	APEL		APEL	082363	X					B4900567		06674								
C6674	MC		009		W006	C00	W APEL		W APEL	082263		082363		083063	092763	B4900567A										
C6677	MC		009		W006	000	R F DRAPER		W APEL	081463		082363		090563	092763	B4900567A						06672	06673	06675	06676	06678
06688	MC		009		W006	C00	APEL			082363	X							06674								
C6659	MC		009		W006	C00	W APEL		W APEL	080963		082163		083063	092763	B4900567A										
C6699	MC		009		W006	C00	R F DRAPER		W APEL	081963		082363		091263	092963	B4900567A						06691	06698	06700	06701	
C6778	MC		009		W006	001	R F DRAPER		W APEL	101163		102863		110863	062564							06749	06779	06780		
C7020	MC		009		W006	C02	R DRAPER	33	W APEL	011764		011764		021064	040664	B4900567						07017				
C7453	MC		009		W006	003	T DONLIN	35	T DONLIN	042364		052264		052964	062564	B4900567A										
C7508	MC		009		W006	C04	W APEL	33	W APEL	061964		062264		070664	080664	B4900567										
C7531	MC		009		W006	005	R DRAPER	33	W APEL	061564		062264		062964	062564	B4900567										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 003

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7641	MC	009	W	CC6	CC6	W	APEL	33	W APEL	071064		071664		072064	082164	B4900567						07642	07594			
C6639	MC	009	W	CC7	CC0	R	MILES		W BENJAMIN	080163		081663			020564	B120437						06634				
C6850	MC	009	W	007	CC0	W	BENJAMIN		W BENJAMIN	110763		110863		112263	020564											
C7035	MC	009	W	007	CC1	R	DRAPER	34	W BENJAMIN	012164		012464		022464	061864	B4900571						07034				
C7109	MC	009	W	CC7	CC2	R	DRAPER	35	W PIERCE	020364		020664		022764	040164	B4900566A										
C7203	MC	009	W	007	CC3	R	DRAPER	34	W BENJAMIN	031064		032164		032064	062664											
C7677	MC	009	W	009	CC0	R	SPEHALSKI	35	R SPEHALSKI	082164		082664		082864	082764	J4900555										
C7301	MC	009	W	014	CC0	J	EARNEST	35	J EARNEST	042864		042964		051364	072264	4900559										
C7388	MC	009	W	015	CC0	T	DONLIN	34	T DONLIN	042364		052264		052964	061664							07452	07453			
C6835	MC	009	W	017	CC0	W	TRESTER		W TRESTER	102963		110163		111463	121663											
C6821	MC	009	W	017	CC0	W	TRESTER		W TRESTER	101463		101763		103163	022164	MC-4-323A						06822	06823			
C6846	MC	009	W	017	CC0	R	F DRAPER		W M TRESTER	110663		110663		112263	121663							06845	06847			
C6739	MC	009	W	017	C00	R	F DRAPER		W PIERCE	092563		092563		100963	102963							06738				
C7014	MC	009	W	017	CC1	W	TRESTER	33	W TRESTER	011664		011764		021064	021864	B4900585						07016				
C7271	MC	009	W	017	CC2	W	TRESTER		W TRESTER	032364		032364		041864	040764	B4900585C										
C7385	MC	009	W	017	CC3	W	TRESTER	33	W TRESTER	042864		050164		052064	071064	E4900585D										
C6675	MC	009	W	019	C00	R	F DRAPER		W PIERCE	081363		082363		090563	101063	B4900564A						06673	06672	06676	06677	06678
C6700	MC	009	W	019	CC0	R	F DRAPER		W PIERCE	081963		082363		091263	101063	B4900567A						06691	06698	06699	06701	
C6713	MC	009	W	019	CC0	W	BENJAMIN		W PIERCE	090663		091263		092763	102363	B4900554						06711				
C6867	MC	009	W	019	CC0	R	DRAPER		W PIERCE	112063		120563		121163	040164											
C6822	MC	009	W	019	CC0	R	F DRAPER		W PIERCE	101463		101763		103063	102963	J4900548A						06821	06823			
C6767	MC	009	W	019	C01	R	OTAMURA		R OTAMURA	100863		100863		102563	101863	B4900554						06768				
C6916	MC	009	W	019	CC2	J	SHAFFER		S MITCHELL	122763		010864		012164	030264	B120486A										
C6935	MC	009	W	019	CC3	R	DRAPER		W PIERCE	010364		010364		012164	040164	B4900554										
C6984	MC	009	W	019	CC4	R	DRAPER	35	W PIERCE	011064		011764		011964	040164	B4900554										
C7006	MC	009	W	019	CC5	R	DRAPER	35	W PIERCE	011464		011764		020664	040164	B4900554										
C7126	MC	009	W	019	CC6	J	ACURD	35	W PIERCE	021064		021764		030164	052764	B120483										
C7204	MC	009	W	019	CC7	R	DRAPER	35	W PIERCE	031264		032164		033064	051564	B4900554B										
C7258	MC	009	W	019	CC8	R	DRAPER	35	W PIERCE	031964		032164		033164	051164	B4900554C						07258	07260			
C7346	MC	009	W	019	CC9	R	SPEHALSKI	35	R SPEHALSKI	041664		042964		051564	062464	J4900647										
C7452	MC	009	W	C19	010	T	DONLIN	35	T DONLIN	042364		052264		052964	060364											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 004

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7552	MC	009	W		019011	W	PIERCE	35	W PIERCE	061864		061864		070964	072164	B4900554										
C7558	MC	009	W		019012	W	PIERCE	35	W PIERCE	061964		062964		071264	082564	J4900647										
C6695	MC	009	W		020000	R	EBBETT		W PIERCE	081263		081963		092763	110463											
C6825	MC	009	W		020000	R	EBBETT		R EBBETT	102163		102263		103063	111463	B4900565										
C6780	MC	009	W		020000	R	F DRAPER		R EBBETT	101163		102963		110863	110763	B4900565						06749	06778	06779		
C6985	MC	009	W		020001	R	DRAPER		R EBBERT	011064		011764		020664	012864											
C7000	MC	009	W		020002	R	EBBERT	32	R EBBERT	011564		012364		021064	061864	B4900565										
C7160	MC	009	W		020003	F	SCHUTZ	32	R EBBERT	021864		022164		030464	040264	B4900565B						07161	07162			
C7048	MC	009	W		020003	F	SCHUTZ		R EBBETT	012264		021064		021064	032164	B4900565						07123	07128			
C7190	MC	009	W		020004	R	EBBETT		R EBBETT	022764		030464		031664	031964	B4900565										
C7191	MC	009	W		020005	P	STEINBROOK		R EBBETT	030664		030664		040164	031964	B4900565										
C7446	MC	009	W		020006	R	EBBETT	32	R EBBETT	051964		052564		052864	060864	B4900565						07377				
C7461	MC	009	W		020007	R	EBBETT	32	R EBBETT	052064		052764		060864	060864	B4900565						07244				
C7475	MC	009	W		020008	R	EBBETT	32	R EBBETT	052664		060164		061064	061064	B4900565										
C7654	MC	009	W		020009	R	EBBETT	32	R EBBETT	071764		072064		073064	081064	B4900565										
C6827	MC	009	W		021000	R	EBBETT		R EBBETT	092663		101463		102063	110563	B4900566										
C7349	MC	009	W		021001	R	EBBETT		R EBBETT	041664		042064		050164	051864	B4900566										
C7144	MC	009	W		023000	F	SCHUTZ	35	W PIERCE	021364		021864		030164	051164	B4900565						07143				
C6585	MC	009	W		025000		SCHMUECKER		DRAPER	053163		060663		062863	100863	MC-4-120B										
C6888	MC	009	W		029000	D	NORRIS		S MITCHEL	121663		010364		011064	032664											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7415MC	010					B	SCHMITZ	38	B SCHMITZ	052164	X															
C6524MC	010	A	001	C	01	D	RAPER		DRAPER	041063		041263			051463											
C6884MC	010	A	001	C	02	J	SCHMUECKER		J SCHMUECKER	121263		121263		122363	020564	MCP3127										
C6987MC	010	A	001	C	03	H	HARTUNG		H HARTUNG	010364		010964		012264	031264	J4700660										
C7054MC	010	A	001	C	04	B	SCHMITZ	38	B SCHMITZ	122763		012964		021764	060164	B3157821										
C7061MC	010	A	001	C	05	R	WEINER	38	R WEINER	011764		020664		021764	061864	J4700656										
C7063MC	010	A	001	C	06	B	SCHMITZ	38	B SCHMITZ	012864		020664		021764	040664	J4700701										
C7062MC	010	A	001	C	07	R	WEINER	38	R WEINER	012864		021064		022764	061864	J4700697										
C7137MC	010	A	001	C	08	H	HARTUNG		H HARTUNG	021164		021164		022564	022064	C4700737	0778									
C7152MC	010	A	001	C	09	B	SCHMITZ	38	B SCHMITZ	021264		022064		030264	051164	C4700725										
C7178MC	010	A	001	C	10	H	HARTUNG	31	S MITCHELL	022064		030364		022064	031764				7137							
C7287MC	010	A	001	C	11	B	SCHMITZ	38	B SCHMITZ	032664		040464		041764	041764	J4700600										
C7413MC	010	A	001	C	12	R	WEINER	38	R WEINER	050864		051564		052564	071764	C126373										
C7414MC	010	A	001	C	13	R	WEINER	38	R WEINER	050864		051564		052564	071764	C4700656										
C7433MC	010	A	001	C	14	L	TOTH	38	L TOTH	051264		052564		060564	072264	J4700640										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65 — STANDARD SUB-SYST REPORT — PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6621	MC	C11		A	001	C01	MILLER		STICKLEY	072263		C73063		082863	101863	J4900548A						06649	06650	06651	06652	06653
C6649	MC	C11		A	001	C02	DRAPER		JCHNSON	073063		080263		082863	101763	J4101309A						06650	06651	06652	06653	06654
C6650	MC	C11		A	001	C03	DRAPER		SPEHALSKI	073063		080263		082863	091063	J4190502						06621	06649	06650	06651	06652
																						06653	06654	06655	06656	06657
C6651	MC	C11		A	001	C04	DRAPER		MCWHORTER	073063		080263		082863	100463	MC-4-120B						06621	06649	06650	06651	06652
																						06653	06654	06655	06656	06657
C6652	MC	C11		A	001	C05	DRAPER		APEL	073063		080263		082863	102863	MC-4-160A						06621	06649	06650	06651	06652
																						06653	06654	06655	06656	06657
C6653	MC	C11		A	001	C06	DRAPER		NEILSON	073063		080263		082863	090563	B120441B						06621	06649	06650	06651	06652
																						06653	06654	06655	06656	06657
C6852	MC	C11		A	001	C07	G COYLE		G COYLE	110663		110763		112163	120663	C4101331										
C6944	MC	C11		A	001	C08	D MILLER		D MILLER	010664		010864		012464	032464	J4400442										
C7053	MC	C11		A	001	C09	G COYLE	OK	G COYLE	012864		020764		022464	021864	J4101330A										
C7056	MC	C11		A	001	C09	D MILLER	33	W APEL	012864		021364		022864	062564	MC-4-160A										
C7159	MC	C11		A	001	C10	D LEWIS	35	D LEWIS	011864		022064		030264	050164	C4101506						07002				
C7365	MC	C11		A	001	C11	F RHODES	35	F RHODES	042364		042964		051564	061664	J4901107										
C7374	MC	C11		A	001	C12	D LEWIS	35	H VONDELDEN	042764		051564		052564	071764	J4101305						07425				
C7425	MC	C11		A	001	C13	D LEWIS	35	W PIERCE	042764		051564		052564	080764							07374				
C7426	MC	C11		A	001	C14	D LEWIS	35	R SPEHALSKI	042764		051564		051564	072164	4101499										
C7447	MC	C11		A	001	C15	H VONDELDEN	35	H VONDELDEN	052064		060264		061664	062264	J4101644										
C7468	MC	C11		A	001	C16	G COYLE	35	G COYLE	052164		060264		061764	062264	J4101330										
C7485	MC	C11		A	001	C16	D LEWIS	35	H VONDELDEN	052864		060864		061964	063064	J4101652										
C7501	MC	C11		A	001	C18	D LEWIS	35	H VONDELDEN	060364		061064		062564	072164	J4101652										
C7535	MC	C11		A	001	C19	W TRESTER		W TRESTER	061664		061964	X													
C7692	MC	C11		A	001	C20	D MILLER	35	J SCHMUECKER	073164		081064		081764	083164	J4101305										
C7684	MC	C11		A	001	C21	H VONDELDEN	35	H VONDELDEN	072964		081964		081464	082664	C4101782										
C7701	MC	C11		A	001	C22	H VONDELDEN	35	H VONDELDEN	081364		081864		082464	100864	J4101710										
C7780	MC	C11		A	001	C23	R FISHER	35	R FISHER	102264		102364		102864	112464											
C6592	MC	C11		FM	001	C01	BRANDT		BRANDT	061763		061763		062863	032164	MC-4-511		07176								
C7002	MC	C11		FM	001	C02	D LEWIS		D LEWIS	010964		011564		021464	062464	C4801299										
C7176	MC	C11		FM	001	C03	D LEWIS	35	D LEWIS	011864		022064		031364	050164	MC-4-511			06592			07159				

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C74C4	MC	011	FMCC1CC		4D		MILLER	35	T THOSTESEN	050664		051564		052564	061864	J4101502										
C7450	MC	011	FMC01CC		5T		THOSTESEN	35	T THOSTESEN	051964		060264		061964	061864	D4101506										
C7451	MC	011	FMCC1CC		6T		THOSTESEN	35	T THOSTESEN	051964		060264		061964	061864	D4101504										
C6531	MC	011	LTCC1CC		1		NEILSON		NEILSON	042263		042263		042363	042263							06501				

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6583	MC	C16	A	C01	C00		APPLETON		APPLETON	051663		060563		062863	120363							06515				
C6661	MC	C16	A	C01	C00		TRESTER		JUDELE	080263		080563		082963	091063	4600499										
C6644	MC	C16	A	C01	C00		TRESTER		TRESTER	073063		073063		081563	121663	C4600526										
C6738	MC	C16	A	C01	C00		W TRESTER		J JUDELE	092063		092563		100963	102463	C4600499C						C6739				
C6786	MC	C16	A	C01	C00		R F DRAPER		W TRESTER	103063	X															
C7202	MC	C16	A	C01	C01		W TRESTER	33	W TRESTER	030464		031764		041564	033164											
C7267	MC	C16	A	C01	C02		W TRESTER	33	W TRESTER	031864		032464		040864	042064	T1484651										
C7276	MC	C16	A	C01	C03		W TRESTER	33	W TRESTER	031864		032464		040864	040764											
C7348	MC	C16	A	C01	C04		W TRESTER	33	W TRESTER	050664		051464		052764	070764	REL1738 11										
C7527	MC	C16	A	C01	C05		W TRESTER	33	W TRESTER	061564		061664		070964	070764	T1505551C										
C7655	MC	C16	A	C01	C06		W TRESTER	33	W TRESTER	071764		071764		071764	071864	T1C50554										
C6504	MC	C16	A	C02	C01		APPLETON		APPLETON	040363		040463			120663											
C6593	MC	C16	A	C02	C17		DRAPER		DRAPER	061863		062163		070563	082363	MC-4-460										
C6710	MC	C16	A	C02	C18		W TRESTER		R A NEILSON	082763		090663		092063	091663	B120442A										
C7015	MC	C16	A	C02	C19		W TRESTER	33	W TRESTER	011764		011764		021064	022164	D479596						07017	07020			
C7016	MC	C16	A	C03	C00		W TRESTER		W TRESTER	011764		011764		021064	021864	D479597						07014				
C6513	MC	C16	A	C04	C01		APPELTON		APPELTON	040363		040463			120663											
C6514	MC	C16	A	C04	C02		APPELTON		NEILSON	040363		040463			041863											
C6516	MC	C16	A	C04	C03		APPELTON		APPELTON	061863	X															
C6845	MC	C16	A	C04	C04		W M TRESTER		W M TRESTER	110463		110463		112163	021864	MC-4-323						06846	06847			
C6823	MC	C16	A	C05	C00		R F DRAPER		R F DRAPER	101663		101763		103163	021864	MC-4-1208						06821	06822			
C6566	MC	C16	A	C05	C00		APPLETON		APPLETON	060763		061163		062863	121663											
C7562	MC	C16	A	C05	C01		W TRESTER	33	W TRESTER	061964		062464		071464	070764	C484651B										

JPL 1558 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	VOID	DATES: APPROVED OR DISAPPROVED	DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7615	MC	020					D NAY	32	D NAY	070664		070964		071764	071564	MC 4 220										
C6641	MC	020	A001	CC0			EBBETT			080163	X							06627								
C6627	MC	020	A001	CC0			CERVIN		CERVIN	071863		072363		082063	092163	MANY										
C6576	MC	020	A001	CC1			DRAPER		NEILSON	062163	X	062163		071663	011464							06577	06507			
C6577	MC	020	A001	CC2			SMITH		NEILSON	061063		061063		062863	082163	MANY										
C6590	MC	020	A001	CC3			CERVIN			061763	X															
C6614	MC	020	A001	CC4			NIXON		NEILSON	070163		070163		070363	080863	B120473										
C6634	MC	020	A001	CC5			MILES			081663	X											06635	06636	06639	06640	06642
C6635	MC	020	A001	CC6			MILES			081663	X					MC-4-321						06634				
C6636	MC	020	A001	CC7			MILES			081663	X					MC-4-120A						06634				
C6642	MC	020	A001	CC8			MILES			081663	X					J4901042						06634				
C6658	MC	020	A001	CC9			SCHUTZ			071963		073163	X													
C6709	MC	020	A001	C10			R CERVIN		R F DRAPER	090563		091663		092663	100863	MC-4-120B										
C6726	MC	020	A001	C11			W G FAWCETT		R A NEILSON	091363		100463		100263	110463	B120457A										
C6860	MC	020	A001	C12			B FAWCETT		R NEILSON	111363		111263		120163	120663											
C6933	MC	020	A001	C13			R CERVIN		I MCWHORTER	111863		010264		012164	050164	MC-4-120B										
C6999	MC	020	A001	C14			D NAY		R DRAPER	122363		012064		012764	032164	B120443										
C7505	MC	020	A001	015			L PARKER	31	S MITCHELL	060964		061064		061764	061764	B125675										
C7536	MC	020	A001	C16			F SCHUTZ	32	F SCHUTZ	061264		061764		070164	092464	SCH 21382										
C7548	MC	020	A001	C17			A CALABRESE	32	A CALABRESE	061764		062564		070164	071564											
C7810	MC	020	A001	018			W SCHNEIDER	32	W SCHNEIDER	100264		102864		102864	120764											
C7351	MC	020	A002	CC0			A CALABRESE		A CALABRESE	033064		041764		042264	071564	D4801207										
C7314	MC	020	A002	CC1			A CALABRESE	32	A CALABRESE	041764		060864		061064	071664	D4801207										
C6826	MC	020	A003	CC0			R EBBETT		J JODELE	102463		102963		111163	110563	D4801206										
C6748	MC	020	A003	CC0			J R CASANI		J JODELE	093063		101063		101763	010864	J4801219										
C6760	MC	020	A003	CC1			W J SCHNEIDER		J JODELE	100763		101063		103063	010964	J4801216										
C7134	MC	020	A003	CC2			D NAY	32	D NAY	021264		021764		031364	071564											
C7156	MC	020	A003	CC3			D NAY	32	D NAY	021264		021864		031364	071564											
C7162	MC	020	A003	CC4			F SCHUTZ	32	W SCHNEIDER	021864		022164		030464	071564	D-600-688						07161	07160			
C7166	MC	020	A003	CC5			J CASLER	35	J CASLER	022064		022664		030264	061664	J4801659										
C7245	MC	020	A003	CC6			W SCHNEIDER	32	W SCHNEIDER	030964		031764		040164	071564											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7282	MC	020	A	003	CC7	A	CALABRESE		S MITCHELL	032464		033164		041364	052064	B120457										
C7651	MC	020	A	003	CC8	J	WOLFE	32	J WOLFE	071364		071564		073064	113064	J4801666										
C7669	MC	020	A	003	CC9	J	WOLFE		J WOLFE	072464		072864		081764	081164	J4801698										
C7004	MC	020	A	004	CC0	A	CONRAD		D SCHNEIDER	011464		012164		021064	071564	B4900565										
C7068	MC	020	A	004	CC1	J	WOLFE	32	J WOLFE	020364		020664		022164	021864	GT1TBA0039						06834				
C7284	MC	020	A	004	CC2	J	WOLFE	32	J WOLFE	032564		040464		041764	050564	AW1 21382										
C6637	MC	020	A	005	CC0		EBBETT		JODELE	072663		073163		082163	092463	D4801230A										
C6834	MC	020	A	005	CC0	J	CASANI		W SCHNEIDER	103063		103063		111363	021864											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6828MC		021			ACC1CC0J		CASANI		R HOLMAN	103063		103063		111363	061964											
C6781MC		021			ACC1CC0J		JODELE		J JODELE	100263		101063		103063	010964	C4801215										
C7157MC		021			ACC1CC1E		GROKULSKY	32	E GROKULSKY	021264		022164		030264	061964	DX4801215										
C7168MC		021			ACC1CC2R		HOLMAN						X													
C7167MC		021			ACC1CC3R		HOLMAN		R HOLMAN	022064		031064		032064	061964											
C7171MC		021			ACC1CC4R		HOLMAN		R HOLMAN	022764		031064		032064	061964											
C7169MC		021			ACC1CC5R		HOLMAN		R HOLMAN	022764		031064		032064	061964											
C7170MC		021			ACC1CC6R		HOLMAN		R HOLMAN	022764		031064		032064	062264											
C7172MC		021			ACC1CC7E		GROKULSKY	32	R HOLMAN	022664		032464		040164	062264											
C7173MC		021			ACC1CC8E		GROKULSKY	32	R HOLMAN	022664		032464		040164	061964											
C7300MC		021			ACC1CC9R		HOLMAN	32	R HOLMAN	042864		050564		051964	061964	J4801609										
C7377MC		021			ACC1CC9R		HOLMAN	32	R HOLMAN	042864		050764		052064	061964	C124483										
C7697MC		021			ACC1C10R		HOLMAN		R HOLMAN	081064		083164	X													
C7750MC		021			ACC1C11R		HOLMAN	32	J THEIS	091064		091064		091564	122364	J4801708										
C7813MC		021			ACC1C12R		DRAPER	35	J JODELE	102964		103064		112664	021865											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6696	MC	024	A	C01	C00	R	EBBETT		J JODELE	081263		081963		092063	010864											
C6829	MC	024	A	C01	C00	J	CASANI		D SCHOFIELD	103063		103063		111363	040164											
C6523	MC	024	A	C01	C01		CASANI		DRAPER	041063		041063			010964											
C6534	MC	024	A	C01	C02	F	AWCETT		FAWCETT	042663		042963			082063	MC-4-224A										
C6719	MC	024	A	C01	C03	D	SCHOFIELD		R F DRAPER	091163		091663		093063	100863	MC-4-120B										
C6735	MC	024	A	C01	C04	R	SLOAN		D SCHOFIELD	092463		100463		101763	110563	MC-4-224B										
C7237	MC	024	A	C01	C05	L	DUMAS		L DUMAS	031264		031664		033064	051464	4801224										
C7248	MC	024	A	C01	C06	D	SCHOFIELD		J JODELE	031364		032164		040364	062264	GF1107063										
C7420	MC	024	A	C01	C07	L	DUMAS	35	L DUMAS	051164		051464		052764	060364	J4801224										
C7557	MC	024	A	C01	C08	D	SCHOFIELD	32	D SCHOFIELD	061864		062564		071064	082564	MC-4-224B										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6697	M	C	025	A	C01	C0	OR EBBETT		J JODELE	081263		081963		092063	010864											
C6669	M	C	025	A	C01	C0	O SCHOFIELD		JODELE	080163		080963		082363	010964	4801225A										
C6830	M	C	025	A	C01	C0	C J CASANI		D SCHOFIELD	103063		103063		111363	030264											
C6526	M	C	025	A	C01	C0	1 PARKER		APEL	041963		050363			072963	B120441A										
C6736	M	C	025	A	C01	C0	2R SLOAN		D SCHOFIELD	092463		101463		103063	030464	MC-4-225						06785				
C6785	M	C	025	A	C01	C0	3R F DRAPER		I L MCWHORTER	101163		101463		103063	011664	MC-4-120C						06736				
C7437	M	C	025	A	C01	C0	4D MILLER	35	D MILLER	051464		060964		062264	080664	J4801225										
C7581	M	C	025	A	C01	C0	5M GRAM	33	D SCHOFIELD	062564		062564		071564	071564	J4801225										
C7804	M	C	025	A	C01	C0	6D SCHOFIELD	25	D SCHOFIELD	100264		100564		101464	011865	B-2780-B										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6747	MC	0	26	A	0	1	C C 0	L G DESPAIN		L G DESPAIN	100363		101063		103163	011464	MC-4-120B									
C6693	MC	0	26	A	0	1	C C 0	R EBBETT		R EBBETT	081263		081963		092763	091263	J124481B									
C6689	MC	0	26	A	0	1	C C 0	L G DESPAIN		R F DRAPER	081563		082163		083063	100863	MC-4-120B									
C7124	MC	0	26	A	0	1	C 0 1	L DUMAS	31	L DUMAS	020764		021364		022864	030464	C4801233									
C7392	MC	0	26	A	0	1	C C 2	W LAYMAN	35	W LAYMAN	050164		050764		052064	060164	B4600538									
C7315	MC	0	26	A	0	1	C C 3	R SPEHALSKI	35	R SPEHALSKI	040864		042764		042964	062464	J4801613									
C7580	MC	0	26	A	0	1	C C 3	M GRAM	32	L DESPAIN	062464		062564		071564	071564	C4801315									
C7659	MC	0	26	A	0	1	C C 4	K HOYT	31	S MITCHELL	072164		072264		072464	072464	B120407									
C7670	MC	0	26	A	0	1	C C 5	J CASLER	35	J CASLER	072764		072764		080364	081764	J4801613									
C7680	MC	0	26	A	0	1	C C 6	J CASLER	35	W PIERCE	073164		080364		081464	082564	J4901215									
C7704	MC	0	26	A	0	1	C C 7	L DESPAIN	32	L DESPAIN	081264		081864		082064	011965										
C7718	MC	0	26	A	0	1	C C 8	L DUMAS	32	L DUMAS	081964		082164		082764	102164	C4801315									
C7800	MC	0	26	A	0	1	C C 9	L DESPAIN	32	L DESPAIN	091764		092264		100464	111764	J4801002									

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PRODUCT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID.	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6741MC		C31		ACC1	C00R		F DRAPER		I L MCWHORTER	092563		092663		102363	011664	MC-4-120B						C6740				
C6740MC		C31		ACC1	C00R		WONG		R WONG	092563		092663		102363	011064	MC-4-231B						06741				
C6600MC		C31		ACC1	C01	D	RAPER		NEILSON	062163		062163		071663	110463	B120491						06601	06577			
C6612MC		C31		ACC1	C02	N	EILSON		BARLOW	070163		070163		071963	073163	C4101409				06622		06613				
C6613MC		C31		ACC1	C03	N	EILSON		FAWCETT	070163		070163		071963	092163	MC-4-231B				06622		06612				
C6622MC		C31		ACC1	C04	F	AWCETT		NEILSON	071863		072363		080163	110463	MC-4-231B					06612					
																					06613					
C6720MC		C31		ACC1	C05	R	WONG		J JODELE	091163		092063		101863	010864	C4801294										
C6777MC		C31		ACC1	C06	R	WONG		R WONG	101163		101763		110863	011064	MC-4-231B										
C6943MC		C31		ACC1	C07	G	COYLE	35	G COYLE	010664		012364		021064	020564	D4801391										
C7049MC		C31		ACC1	C08	G	COYLE	35	G COYLE	012464		012964		021764	031964	J4101400						06979				
C7113MC		C31		ACC1	C09	R	SLOAN	32	R WONG	030364		030364		040364	092164	MC-4-231C						07025	07112			
C7143MC		C31		ACC1	C10	F	SCHUTZ	35	G COYLE	021364		021864		030164	042764	J4801390										
C7302MC		C31		ACC1	C11	W	MOMSEN	32	W MOMSEN	040164		041364		042764	062564	D4801367										
C7303MC		C31		ACC1	C12	W	MOMSEN	32	W MOMSEN	040164		041364		042764	062564	J4801365										
C7304MC		C31		ACC1	C13	W	MOMSEN	32	W MOMSEN	040164		041364		042764	062564	D4801347										
C7305MC		C31		ACC1	C14	W	MOMSEN	32	W MOMSEN	040164		041364		042764	062564	J4801187										
C7307MC		C31		ACC1	C15	G	COYLE	35	G COYLE	040664		041764		042364	050664	J4801390										
C7379MC		C31		ACC1	C16	W	MOMSEN	32	W MOMSEN	042864		042964		051564	062564	J4801346										
C7459MC		C31		ACC1	C17	R	RIEDER	32	R RIEDER	052064		052264		060564	062464	4801353										
C7583MC		C31		ACC1	C18	R	WONG	32	R WONG	062464		070764		071764	072264	J4801344										
C7627MC		C31		ACC1	C19	W	MOMSEN		W MOMSEN	070864		070964		071764	072264	J4801370										
C7325MC		C31		ACC1	C00R		WONG	32	R WONG	041464		042964		051164	062464	J4801365										
C7709MC		C31		ACC5		G	COYLE		G COYLE	081764		082164		082764	091064	J4801390										
C6749MC		C31		ACC5	C01	R	F DRAPER		R F DRAPER	101163		102763		110863	111863	B120444						06778	06780			
C7066MC		C31		ACC5	C02	G	COYLE		G COYLE	013164		020664		022164	031964	J4801390										
C7547MC		C31		ACC5	C03	E	FLOYD	35	E FLOYD	070664		070864		071764	070864	C4801403B										
C7610MC		C31		ACC5	C04	E	FLOYD	35	E FLOYD	070664		070964		072464	090164							07307				
C6942MC		C31		MCC2	C00	G	COYLE	35	G COYLE	010664		012364		021064	020564	C4801575										
C6979MC		C31	M	SCC1	C00	G	COYLE	35	G COYLE	010864		012364		020864	012464											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DAT : 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7822	MC		032				R GRAHAM	32	R GRAHAM	030465		C31165		31565	C31165											
C7399	MC		032	A	C01	C00	R GRAHAM	32	R GRAHAM	050764		051564		052764	071764	MIT 4889J										
C7551	MC		032	A	C01	C01	R GRAHAM	32	R GRAHAM	061864		062564		070664	072264	J4801226										
C7596	MC		032	A	C01	C02	M GRAM	32	R GRAHAM	062664		062664		071364	072264	J4801226										
C7745	MC		032	A	C01	C03	ATKINS		CSTHELLER	082964		091164		91864		4900548										
C7754	MC		032	A	C01	C04	R GRAHAM	32	R GRAHAM	091064		092464		092564	C92864											
C7762	MC		032	A	001	005	R GRAHAM	32	R GRAHAM	092164		100664		10 964	100864	MIT4889A						C7754				
C6732	MC		032	A	C02	C00	R A GRAHAM		J JODELE	092063		092063		101863	101163	C4801227B										
C6926	MC		032	A	C02	C01	R GRAHAM		R GRAHAM	122663		C10864		012764	031664											
C6927	MC		032	A	C02	C02	R GRAHAM		R GRAHAM	122663		010864		012764	031664											
C6928	MC		032	A	C02	C03	R GRAHAM		R GRAHAM	122663		C10864		012764	031164											
C6929	MC		032	A	C02	C04	R GRAHAM		R GRAHAM	122663		C10864		012764	C72364											
C6930	MC		032	A	C02	C05	R GRAHAM		R GRAHAM	122663		010864		012764	C72364											
C6931	MC		032	A	C02	C06	R GRAHAM		R GRAHAM	122663		010864			031664											
C6917	MC		032	A	C02	C07	R DRAPER		R GRAHAM	011264		011764		020664	070764	B120432										
C7009	MC		032	A	C02	C08	R DRAPER		R DRAPER	011564		011764		020664	021864	J4900646						06984	06985			
C7021	MC		032	A	C02	C09	R GRAHAM	32	R GRAHAM	011664		012464		020664	072364											
C7022	MC		032	A	C02	C10	R GRAHAM	32	R GRAHAM	011664		012364		020664	031664											
C7039	MC		032	A	002	C11	R GRAHAM	32	R GRAHAM	011664		012364		022164	031664						C6931					
C6733	MC		032	A	C03	C00	R A GRAHAM		J JODELE	092063		092063		101863	101563	C4801228B										
C6734	MC		032	A	C04	C00	R A GRAHAM		J JODELE	092063		092063		101863	101563	C4801229B										
C6831	MC		032	A	004	C00	J CASANI		R GRAHAM	103063		103063		111363	031664											
C6783	MC		032	A	004	001	R A GRAHM		R A GRAHM	101063		101563		103063	012864	MC-4-232						06784				
C6784	MC		032	A	C04	C02	R F DRAPER		I L MCWHORTER	101163		101563		103063	011664	MC-4-120C						06783				
C6863	MC		032	A	C04	C03	R GRAHAM		R NEILSON	111463		121963		011064	032764											
C6896	MC		032	A	C04	C04	R GRAHAM		R A GRAHM	111963		121963		011064	031664											
C7165	MC		032	A	004	C05	R GRAHAM		R GRAHAM	021864		030464		031364	050564	J4801226										
C7196	MC		032	A	C04	C06	R GRAHAM		R GRAHAM	022864		031064		031664	072364											
C7195	MC		032	A	C04	C07	R GRAHAM		R GRAHAM	022864		031064		031664	C40164											
C7194	MC		032	A	C04	C08	R GRAHAM		R GRAHAM	022864		031064		031664	C33164											
C7193	MC		032	A	C04	C09	R GRAHAM		R GRAHAM	022864		031064		031664	C72464											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7213	M	C	032	A	00	4C10	R GRAHAM	32	R GRAHAM	030464		032164		040364	040864			07308								
C7214	M	C	032	A	00	4C11	R GRAHAM	32	R GRAHAM	030464		032164		040364	040864			07309								
C7215	M	C	032	A	00	4C12	R GRAHAM	32	R GRAHAM	030464		032164		040364	033164											
C7216	M	C	032	A	00	4C13	R GRAHAM	32	R GRAHAM	030464		032164		040364	070764											
C7217	M	C	032	A	00	4C14	R GRAHAM	32	R GRAHAM	030464		032164		040364	072364											
C7218	M	C	032	A	00	4C15	R GRAHAM	32	R GRAHAM	030564		032164		040364	033164											
C7261	M	C	032	A	00	4C16	R GRAHAM	32	R GRAHAM	031964		032564		041064	072364				C7215							
C7262	M	C	032	A	00	4C17	R GRAHAM	32	R GRAHAM	031964		032564		041064	070764	270702A										
C7274	M	C	032	A	00	4C18	R GRAHAM	32	J JODELE	032364		032564		041064	042964											
C7308	M	C	032	A	00	4C19	R GRAHAM	32	R GRAHAM	040264		040864		042564	060164			07484	07213							
C7309	M	C	032	A	00	4C20	R GRAHAM	32	R GRAHAM	040264		040864		042564	060164			07484	07214							
C7366	M	C	032	A	00	4C21	R GRAHAM	32	R GRAHAM	042365		050564		050864	050664											
C7484	M	C	032	A	00	4C22	R GRAHAM		S MITCHELL	052764		060164		053064	060164				C7308							
																			C7309							
C7652	M	C	032	A	00	4C23	J CASANI	32	R GRAHAM	071664		072164		072264	072464						C6929					
																					C6930					
																			C7021							
																			C7193							

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP. PROVED	DATES: DIS	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6502	MC	C33	A	001	C01	F	AWCETT			040263	X															
C6692	MC	C33	A	001	C02	D	NORRIS		J JODELE	081363		081963		083063	010964	D4801024										
C6775	MC	C33	A	001	C03	D	NORRIS		J JODELE	091763		101463		103063	120663	C4801025A										
C6737	MC	C33	A	001	C04	R	SLOAN		D NORRIS	111163		111363		112663	102864											
C6890	MC	C33	A	001	C05	D	NORRIS		D NORRIS	121663		010364		011064	102864											
C6889	MC	C33	A	001	C06	D	NORRIS		J JODELE	121663		012364		011064	012464											
C7120	MC	C33	A	001	C07	L	DUMAS		D NORRIS	012764		021064		022464	071064	4801024										
C7149	MC	C33	A	001	C08	D	NORRIS	32	D NORRIS	021364		022164		022864	063064	J4801024		07496								
C7460	MC	C33	A	001	C09	D	NORRIS	31	S MITCHELL	051664		052764		053064	060464	E120407						06832				
C7472	MC	C33	A	001	C10	D	NORRIS	33	D NORRIS	052264		060164		061064	122164	T1456469										
C7493	MC	C33	A	001	C11	L	DUMAS	35	L DUMAS	060564		061764		062564	070264	C4801738										
C7496	MC	C33	A	001	C12	D	NORRIS	32	D NORRIS	062964		063064		070764	072264	J4801024			07149							
C7665	MC	C33	A	001	C13	D	NORRIS	32	D NORRIS	072264		072264		072964	122164	T1484736										
C7733	MC	C33	A	001	C14	D	NORRIS	32	D NORRIS	082264		090264		091164	122164	456462										
C6832	MC	C33	A	002	C00	J	CASANI		D NORRIS	103063		103063		111363	070864											
C6841	MC	C33	A	002	C01	D	NORRIS		D NORRIS	102863		110163		111563	071064	4801025										
C6875	MC	C33	A	002	C02	D	NORRIS		J JODELE	111363		120563		121963	012164	C4801256										
C7050	MC	C33	A	002	C03	D	NORRIS		D NORRIS	012264		021064		022064	070864	I1456469										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65 — STANDARD SUB-SYST REPORT — PAGE NO. 001

ECR NO	CODE: MODELT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7678MC	C34						W READ		W READ	080364	X															
C6751MC	C34		ACC1	CCOR			F DRAPER		J JODELE	100463		102263		103063	011664	J4190502						06750				
C6750MC	C34		ACC1	CCOD			R MARGETTS		D R MARGETTS	102163		102263		103163	111863	MC-4-234						06751				
C6690MC	C34		ACC1	CCOR			EBBETT		R EBBETT	081563		090663		092763	101063	J124481B										
C6694MC	C34		ACC1	CCOR			EBBETT		R EBBETT	081263		081963		092063	101063											
C6507MC	C34		ACC1	CCOS			CHNEIDERMAN		DRAPER	032663		032663			010964	4190502										
C6844MC	C34		ACC1	CCOE			S MCMILLAN		E S MCMILLAN	110163		110763		112263	121663											
C7042MC	C34		ACC1	CC1E			MCMILLIAN	32	E MCMILLIAN	012364		013064		022164	101964	J4801635										
C7043MC	C34		ACC1	CC2E			MCMILLIAN	32	E MCMILLIAN	012364		020564		022164	041564											
C6861MC	C34		ACC1	CC3E			MCMILLAN		S MITCHELL	111463		031664		040164	032764	B120402										
C7417MC	C34		ACC1	CC4E			MCMILLAN	32	S MITCHELL	050864		060164		061064	092264	B125685										
C7533MC	C34		ACC1	CC5E			MCMILLAN	34	E MCMILLAN	061764		061764		070664	092364											
C7545MC	C34		ACC1	CC6E			MCMILLAN	32	E MCMILLAN	062064		062264		071064	011865											
C7546MC	C34		ACC1	CC7E			MCMILLAN	32	E MCMILLAN	062064		062264		071064	102364	J4801635										
C6833MC	C34		ACC2	CCOJ			CASANI		D MARGETTS	103063		103063		111363	090864											
C6880MC	C34		ACC2	CC1J			JODELE		J JODELE	120563		120663		122063	012964	C4801695										
C6870MC	C34		ACC2	CC2E			MCMILLIAN		E MCMILLIAN	112163		121063		011064	091064											
C7145MC	C34		ACC2	CC3L			DUMAS	32	D MARGETTS	021364		021864		022864	052264	4801434										
C7656MC	C34		ACC4	CCOD			BELL		D BELL	071764		072264		073064	082164	J4801233										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65 — STANDARD SUB-SYST REPORT — PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	SUB ASSEMBLY CLASS	NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	VOID	APPROVED OR DISAP-PROVED	DIS.	SCHEDULED COMPLETION	COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	IN FULL: SUPER-CEDES	IN PART: SUPER-CEDED BY	IN PART: SUPER-CEDES	REFERENCE				
C6601	MC	036		A	C01	C01	DRAPER		NELSON	062163		062163		071663	110463	B120491						C660006577				
C6618	MC	036		A	C01	C02	FAWCETT		MCWHORTER	071763		071963		080963	010964	MC-4-120B										
C6887	MC	036		A	C01	C03	D NORRIS			121663		010364	X													
C7146	MC	036		A	C01	C04	L DUMAS	32	J ALLEN	021364		021864		022864	052264	4801123										
C7177	MC	036		A	C01	C05	J CASLER	35	J CASLER	022064		022664		030264	071464	C4801624										
C7448	MC	036		A	C01	C06	R BECKER	32	R BECKER	051364		052264		060164	092164	C4800908										
C7449	MC	036		A	C01	C07	R BECKER	32	R BECKER	051364		052264		060164	080364	B4800909										
C7476	MC	036		A	C01	C08	D BELL	32	D BELL	061164		061764		062964	100764	J4801750										
C7490	MC	036		A	C01	C09	R BECKER	32	R BECKER	063064		070264		061764	082664	C4800906		07674								
C7526	MC	036		A	C01	C10	R BECKER	32	R BECKER	060964		070264		071464	021265	4800906										
C7676	MC	036		A	C01	C11	P BECKER		R BECKER	080664		080664		090164	082664					C7729						
C7613	MC	036		A	C01	C19	R BECKER	32	R BECKER	070164		070764		071464	101564	4800904										
C7674	MC	036		A	C01	C20	R BECKER	32	R BECKER	072464		081964		101864	021265	C4800906			C7490							
C7727	MC	036		A	C01	C21	R BECKER	32	R BECKER	082464		082664		101864	021265	C4800906						07674				
C7728	MC	036		A	C01	C22	R BECKER	32	R BECKER	082464		082664		101864	021265	C4800901						C7674				
C7729	MC	036		A	C01	C23	R BECKER	32	R BECKER	082464		082664		090164	021265						C7676					
C7737	MC	036		A	C01	C24	S MITCHELL	31	S MITCHELL	090164		090364		090864	090964	B125687										
C7125	MC	036		A	C02	C00	D BELL		D BELL	021164		031064		032064	052064	J4801103										
C6990	MC	036		A	C03	C00	D BELL		D BELL	010964		012064		020664	042764	J4801233										
C6995	MC	036		A	C03	C01	D BELL		D BELL	010964		012064		020664	042764	J4801241										
C7243	MC	036		A	C03	C02	D BELL	32	D BELL	031864		032564		040364	052264	J4801241										
C7318	MC	036		A	C03	C03	D BELL	32	D BELL	040964		042164		043064	062664	J4801241										
C7456	MC	036		A	C03	C04	D BELL	32	D BELL	061164		061764		070164	071764	J4801241										
C6866	MC	036		A	C04	C00	L PARKER		S MITCHELL	111963		120363		121063	121263											
C7361	MC	036		A	C04	C01	D BELL	32	D BELL	042364		050564		051564	062664	J4801233										
C7705	MC	036		A	C04	C02	D BELL		D BELL	081264		083164		090164	100764	J4801233										
C5313	MC	036		A	C03	C01	APPLETON			031263	X															
C7311	MC	036		A	C05	C02	D BELL	32	D BELL	041564		042164		050464	062664	J4801204										
C7317	MC	036		A	C05	C03	D BELL	32	D BELL	040964		042164		043064	062664	J4801204										
C6996	MC	036		A	C06	C00	D BELL		D BELL	010964		012064		020664	020564	C4801222										
C7244	MC	036		A	C06	C01	D BELL	32	D BELL	031864		032564		041064	062664	J4801221										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7362	M	C	036	A	C	C6	C2D BELL	32	D BELL	042364		050564		051564	100764	J4801221										
C7785	M	C	036	A	C	C6	C3D BELL	32	D BELL	122164		122864		010165	010865											
C7786	M	C	036	A	C	C6	C4D BELL	32	D BELL	122164		122864		010165	010865											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP. PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6911	MC	1	C1	A	C1	CC1	R DRAPER		R NEILSON	121963		122663		012464	032764							069	0690	6910		
C6997	MC	1	01	A	C1	CC2	R NORMAN		A BARLOW	011064		011564		043064	040164	8100205										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6623MC		1C2	AC01C01B				BURKS		NEILSON	072263		072363		081663	080863	B120458A										
C7091MC		1C2	AC01C02H				PHILLIPS		S BURKS	032664		033064		040364	0728											
C7539MC		1C2	AC01C03R				DRAPER	31	J SHANTZEN	061564		062264		071464	103064											
C7609MC		1C2	AC01C04H				PHILLIPS	31	SHANTZEN	071464		072064		071064	103064	J8901550										
C7739MC		1C2	AC01C05H				PHILLIPS	31	G MOORE	090164		090364		090664	090764	B890503										
C7741MC		1C2	AC01C25H				PHILLIPS	31	G MOORE	090164		090864		091064	092264	B120507										
C7742MC		1C2	AC01C26H				PHILLIPS	31	G MOORE	090164		090864		091064	102664	B120504										
C7743MC		1C2	AC01C27H				PHILLIPS	31	H PHILLIPS	090164		090864		091064	092264	B120506										
C7746MC		1C2	AC01C28H				PHILLIPS	31	G MOORE	090864		091064		092064	092264	B120505										
C7256MC		1C2	WC01C00R				DICKINSON	33	R DICKINSON	031964		032464		041064	060864	C4901164										
C7257MC		1C2	WC01C01R				DICKINSON	33	R DICKINSON	031964		032464		041064	042064	C4901154										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6769	MC	1	C3	A	C01	C01	A SPEAR		H PHILLIPS	100363		101063		101563	101563	B120508A										
C6770	MC	1	C3	A	C01	C02	A SPEAR		H PHILLIPS	100363		101063		101563	101563	B120509A										
C6803	MC	1	C3	A	C01	C03	D OLSON		J SCHANTZEN	120363		120563		121063	103064	B8902180										
C6807	MC	1	C3	A	C01	C04	G WIKER		H PHILLIPS	112263		120563		121063	120963	B120508										
C6964	MC	1	C3	A	C01	C05	H PHILLIPS		J SCHANTZEN	010764		011564		021564	061664	B8901811										
C7092	MC	1	C3	A	C01	C06	H PHILLIPS		T SPEAR	032664		033064		040364	071164											
C7525	MC	1	C3	A	C01	C07	A SPEAR	33	A SPEAR	060964		062564		063064	071164	69-26348										
C7585	MC	1	C3	A	C01	C08	A SPEAR	33	A SPEAR	062364		062664		070964	071164											
C7740	MC	1	C3	A	C01	C09	H PHILLIPS	31	G MOORE	090164		090864		091064	091864											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7093MC		104		AC	01CC0C	H	PHILLIPS		J SAVINO	032664		033064		040364	070264											
C7111MC		104		AC	01CC01	J	SAVINO		J SAVINO	022064		032464		040164	042364	B120511										
C7209MC		104		AC	01CC01	J	SAVINO	34	J SAVINO	031064		031964		040164	070264	B120513										
C7105MC		104		AC	01CC02	H	PHILLIPS	31	H PHILLIPS	022764		033164		040164	041364											
C7424MC		104		AC	01CC03	C	EDWARDS	34	C EDWARDS	051164		052064		052964	081864	J8400147										
C7559MC		104		AC	01CC04	R	DRAPER	31	S MITCHELL	061964		062464		071464	062664	B120487										
C7589MC		104		AC	01CC05	J	SAVINO	34	J SAVINO	070964		071864		071864	121164	J8400140										
C6819MC		104		AC	01CC06	D	PEDRITTI	31	H PHILLIPS	011664		012764		021564	042464											
C7693MC		104		AC	01CC07	C	EDWARDS	34	C EDWARDS	080764		081964		082464	122164	J8400194										
C7715MC		104		AC	01CC08	H	PHILLIPS	31	H PHILLIPS	081064		081964		082064	082164	B125689										
C7716MC		104		AC	01CC09	H	PHILLIPS	31	H PHILLIPS	081064		082064		082064	082164	B120460										
C7722MC		104		AC	01CC10	H	PHILLIPS	31	H PHILLIPS	082064		082164		082064	082164	B120513										
C7723MC		104		AC	01CC11	H	PHILLIPS	31	G MOORE	082064		082164		082464	082164	B120511										
C7724MC		104		AC	01CC12	H	PHILLIPS	31	G MOORE	082064		082164		082464	082464	B120510										
C7397MC		104		WC	01CC0C	H	PHILLIPS	31	J SCHANTZEN	051164		051264		052564	103064	J8902124										
C7422MC		104		WC	01CC01	H	PHILLIPS	31	J SCHANTZEN	051164		051264		052464	061664	B8901609										
C6963MC		104		WC	11CC01	T	ATKINS		H PHILLIPS	122663		010264		010964	031964	B8901621										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP. PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7094	MC	105	A	C	01	CC0	H PHILLIPS		D ROSS	032664		033064		040364	070864											
C7495	MC	105	A	C	01	CC1	D ROSS	34	D ROSS	060864		060864		062264	072064	J8200536										
C7555	MC	105	A	C	01	CC3	D ROSS	34	D ROSS	061864		061964		070664	091764	J8200635										
C7579	MC	105	A	C	01	CC4	D ROSS	34	D ROSS	062364		063064		071064	072064	J8200381										
C7749	MC	105	A	C	01	CC5	H PHILLIPS	31	G MOORE	091064		091064		091564	093064	B125690										
C7753	MC	105	A	C	01	C27	H PHILLIPS	31	G MOORE	091064		091064		091564	093064	B120515										
C7753	MC	105	A	C	01	C27	H PHILLIPS	31	G MOORE	091064		091064		091564	093064	B120515										
C7358	MC	105	JB	C	01	CC0	H PHILLIPS	34	D ROSS	042364		042964		043064	071564	J8901550						07359				

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65.

PAGE NO. 001

ECR NO	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN REPSP	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C7095MC	1C6	ACC1CCCH					PHILLIPS		k APEL	032664		033064		040364	080664											
C7594MC	1C6	ACC1CC1k					APEL	33	k APEL	071364		071664		C73064	082164	T1474024										
C7808MC	1C6	ACC1CC2k					APEL	33	k APEL	101464		101764		102164	120164											
C7814MC	1C6	ACC1CC3k					APEL	33	k APEL	111864		111964		112164	120864											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE . 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7096	MC		107	A	C01	CC0	H PHILLIPS		J PETRALIA	032664		033064		040364	070264											
C7553	MC		107	A	C01	CC1	J PETRALIA	34	J PETRALIA	061864		062564		063064	071064	8201205										
C7554	MC		107	A	C01	CC2	J PETRALIA	34	J PETRALIA	061864		062564		063064	071064	8201114										
C7687	MC		107	A	C01	CC3	W MOORE	32	W MOORE	081864		082464		081964	122164	8201178						07553	07554			
C7752	MC		107	A	C01	CC4	R OTAMURA	34	R OTAMURA	091064		091464		093064	122164											
C7732	MC		107	A	C01	CC5	L SCHMIDT	34	L SCHMIDT	090864		091164		091864	122164	C125715										
C6951	MC		107	W	C01	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901665										
C6957	MC		107	W	C02	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012764	B8901667										
C6960	MC		107	W	C02	CC2	R OTAMURA		H PHILLIPS	122663		010264		010264	012764	B8901669										
C6952	MC		107	W	C03	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901673										
C6956	MC		107	W	C03	CC2	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901671										
C6959	MC		107	W	C04	CC1	R OTAMURA		H PHILLIPS	122663		010264		010264	012364	B8901677										
C6962	MC		107	W	C04	CC2	R OTAMURA		H PHILLIPS	122663		010264		010264	012364	B8901675										
C6954	MC		107	W	C05	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901679										
C6958	MC		107	W	C06	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901680										
C6950	MC		107	W	C07	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901681										
C7086	MC		107	W	C07	CC2	T ATKINS	34	J PETRALIA	031164		040264		041364	071164	J8902126										
C6953	MC		107	W	C08	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901682										
C6948	MC		107	W	C11	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901685										
C7356	MC		107	W	C90	CC0	R OTAMURA	35	J SCHANTZEN	042064		042964		043064	071564	B8901688										
C6955	MC		107	W	C91	CC1	R OTAMURA		H PHILLIPS	122663		010264		010764	012764	B8901688										
C7334	MC		107	W	C07	CC0	H PHILLIPS	31	J SCHANTZEN	041564		041564		043064	081264	B8901724										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6633MC		108		ACC	1CC1M		CORE		NEILSON	072563		072563		080163	073163	B120464										
C6910MC		108		ACC	1CC2R		DRAPER		L MOORE	121963		122663		012464	052264							0690906911				
C7139MC		108		ACC	1CC3M		MOORE	35	M MOORE	021364		021864		030164	041364											
C7097MC		108		ACC	1CC4H		PHILLIPS		L MOORE	032664		033064		040364	041564											
C7384MC		108		ACC	1CC5M		MOORE	35	M MOORE	042864		052564		060164	061764	B8901692						07341				
C7593MC		108		ACC	1CC6M		MOORE	38	M MOORE	062564		070164		071564	120164											
C7707MC		108		A00	1CC7M		MOORE	35	M MOORE	081464		082464		091564	120164											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65 — STANDARD SUB-SYST REPORT — PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	VOID	DATES: APPROVED OR DISAPPROVED	DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
06840	MC	1	09	W	001	001	R F DRAPER		H B PHILLIPS	110563		110563		112263	120463	MANY						06821				
06909	MC	1	09	W	001	002	R DRAPER		H PHILLIPS	121963		122663		012464	033164							06910	06911			
06949	MC	1	09	W	001	003	R OTAMURA		H PHILLIPS	122663		010264		010764	012364	B8901705										
06961	MC	1	09	W	001	004	R OTAMURA		H PHILLIPS	122663		010264		010264	012364	B8901706										
07107	MC	1	09	W	001	005	T ATKINS		J SCHANTZEN	012964		020664		022764	072964	J8901554										
07019	MC	1	09	W	001	006	D ROSS		H PHILLIPS	012864		020164		030164	032764	B8901554										
07084	MC	1	09	W	001	007	D ROSS	31	J SCHANTZEN	020164		022764		022564	042064	B8901550										
07078	MC	1	09	W	001	007	H PHILLIPS	31	J SCHANTZEN	021064		021064		021764	042064	B8901550										
07153	MC	1	09	W	001	008	R NEILSON	31	S MITCHELL	021764		021864		030264	030264	B120495										
07186	MC	1	09	W	001	009	G HENTOSZ		J SCHANTZEN	021464		022664		030164	061664	B8901550										
06967	MC	1	09	W	001	010	G WIKER		H PHILLIPS	032464		032564		040164	032764	B120523										
07089	MC	1	09	W	001	011	R OTAMURA	31	J SCHANTZEN	032664		041564		043064	103064	J8902126										
07330	MC	1	09	W	001	012	H PHILLIPS	31	H PHILLIPS	041464		041564		043064	042964	J8901550										
07331	MC	1	09	W	001	013	H PHILLIPS	31	H PHILLIPS	041464		041564		043064	042964	J8901550										
07207	MC	1	09	W	001	014	R DRAPER	31	J SCHANTZEN	040964		051164		051864	120864	B8901873						07234	07203	07206	07233	
07260	MC	1	09	W	001	015	R DRAPER	31	J SCHANTZEN	043064		051164		053164	120864	J8901554						07259				
07357	MC	1	09	W	001	016	H PHILLIPS	35	J SCHANTZEN	042264		042364		043064	103064	B8902180										
07359	MC	1	09	W	001	017	H PHILLIPS	31	J SCHANTZEN	042164		042764		043064	071564	B8901630						07358				
07372	MC	1	09	W	001	018	R OTAMURA	31	J SCHANTZEN	042264		042764		043064	050164	J8902126										
07391	MC	1	09	W	001	019	A CONRAD	31	J SCHANTZEN	041964		042964		051564	120864	B8901630										
07432	MC	1	09	W	001	020	H PHILLIPS	31	J SCHANTZEN	051064		051464		052264	102064	J8901550										
07440	MC	1	09	W	001	021	H PHILLIPS	31	J SCHANTZEN	051464		052264		052564	072964	J8901554										
07467	MC	1	09	W	001	022	H PHILLIPS		H PHILLIPS	052264		060164		061064	072764	J8901554										
07483	MC	1	09	W	001	023	H PHILLIPS	31	S MITCHELL	060864		060864		061564	071764	B125692										
07474	MC	1	09	W	001	024	W CONOVER	31	J SHANTZEN	061664		062464		071464	061664	J8901554										
07500	MC	1	09	W	001	026	H PHILLIPS	31	J SHANTZEN	061864		061964		062564	103064	D8901552										
07622	MC	1	09	W	001	027	H PHILLIPS	31	J SHANTZEN	070564		071164		073064	103064	B8902694						07621				
07725	MC	1	09	W	001	028	H PHILLIPS	31	G MOORE	082164		082164		082464	082464	B120476										
07550	MC	1	09	U/	001	000	H PHILLIPS	31	J SHANTZEN	061864		061964		063064	103064	D8901552										
07336	MC	1	09	W:	007	000	H PHILLIPS	31	J SCHANTZEN	042764		042964		051564	072064	B8902056										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6849	MC	1	16	A	C01	C01	D APPLETON		R A NEILSON	110663		110663		111863	012864	B120473										
C7098	MC	1	16	A	C01	C02	H PHILLIPS		B TRESTER	032664		033064		040364	070864											
C6817	MC	1	16	W	004	000	W TRESTER		H PHILLIPS	011064		011364		020364	032764	B8901733A										
07565	MC	1	16	W	004	C01	W TRESTER		W TRESTER	061964		070864		071464	071164											
C7621	MC	1	16	W	004	C02	T ATKINS	31	H PHILLIPS	062964		070164		073064	082164	B127135										
07639	MC	1	16	W	004	C03	H PHILLIPS	33	W TRESTER	062964		071164		073064	100664							07621	07622	07640		

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
06744	MC	1	20	A	001	001	R DEL MURO		H PHILLIPS	100463		100763		112063	010764	MANY										
06794	MC	1	20	A	001	002	R DEL MURO		H PHILLIPS	110463		110763		111563	120463	B120537										
06796	MC	1	20	A	001	003	R DEL MURO		H PHILLIPS	100463		110763		112063	120463	B120535										
06774	MC	1	20	A	001	004	R A ROTTER		H PHILLIPS	101063		110163		111563	120563	B120514										
06798	MC	1	20	A	001	005	R DELMURO		H PHILLIPS	112263		120563		121063	120963											
06806	MC	1	20	A	001	006	D PASSELL		H PHILLIPS	112263		120563		121063	120963	B120528										
06969	MC	1	20	A	001	007	D BACKOFEN	31	H PHILLIPS	020364		021064		030164	042064	B8901783										
06970	MC	1	20	A	001	008	H PHILLIPS	32	G HENTOSZ	020564		021864		030564	011365	B8901743										
06971	MC	1	20	A	001	009	H PHILLIPS	31	H PHILLIPS	020564		021864		030164	060164	B8901613										
07077	MC	1	20	A	001	010	D BACKOFEN		H PHILLIPS	020664		021164		030164	032764	B8901550						06970				
07079	MC	1	20	A	001	011	H PHILLIPS		H PHILLIPS	020664		020664		030164	042064	B8901550						06917	06984	06985	07009	
07085	MC	1	20	A	001	012	H PHILLIPS	32	G HENTOSZ	022164		030364		030364	011365							07186				
07116	MC	1	20	A	001	013	G COYLE	32	G HENTOSZ	020564		021964		030264	011365	J8800792										
07123	MC	1	20	A	001	014	R DRAPER		G HENTOSZ	020664		021064		022764	032164	B120413C						07048	07128			
07128	MC	1	20	A	001	015	F SCHUTZ	31	H PHILLIPS	020564		022064		031064	072764	B8901550										
07161	MC	1	20	A	001	016	R DRAPER	32	G HENTOSZ	020664		022164		022764	120164	B120443D						07160	07162			
07240	MC	1	20	A	001	017	R EBBETT	34	R EBBETT	031264		031764		040164	032764											
07095	MC	1	20	A	001	017	H PHILLIPS	32	G HENTOSZ	032664		033064		040364	011365											
07278	MC	1	20	A	001	018	W HODGES	31	W CONOVER	032364		040264		041064												
07394	MC	1	20	A	001	019	R EBBETT		R EBBETT	050464		051164		051564	070864	B8800765										
07487	MC	1	20	A	001	020	R EBBETT	32	R EBBETT	050664		052264		052564	061864	B8902044										
07498	MC	1	20	A	001	021	R ROTTER	32	R ROTTER	060964		062264		061764	011365	J8800609										
07544	MC	1	20	A	001	022	R ROTTER	32	R ROTTER	061764		061964		063064	011565	B800391										
07523	MC	1	20	A	001	023	R EBBETT	32	H PHILLIPS	061564		071164		073064	102664	J8901550						07524	07614	07617	07618	
07524	MC	1	20	A	001	024	R EBBETT	32	R EBBETT	061264		070864		072464	081164	J8902676						07523				
07608	MC	1	20	A	001	024	R EBBETT		R EBBETT	070164		070764		071764	080764											
07612	MC	1	20	A	001	025	R ROTTER	32	R ROTTER	070264		070764		071064	011565	B80782										
07614	MC	1	20	A	001	026	H PHILLIPS	31	J SCHANTZEN	063064		071164		073064	103064	B8902684						07523				
07618	MC	1	20	A	001	027	H PHILLIPS		R EBBETT	070764		071164		073064	072964							07523				
07630	MC	1	20	A	001	028	R ROTTER	32	R ROTTER	070964		071564		071964	011565	J8800615										
07628	MC	1	20	A	001	029	R ROTTER		R ROTTER	071564		072264		072064	011865	B8800765										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 002

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7629	MC	1	20	A001	C30	R	ROTTER	32	R ROTTER	071064		071564		071764	011565	B8800697										
C7657	MC	1	20	A001	C31	R	ROTTER	32	R ROTTER	072064		072264		072764	011365											
C7812	MC	1	20	A001	C32	R	ROTTER	32	H EVERLY	102364		103164		102664	021065											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7564	MC	1	21	A	001	000	R HOLMAN	32	R ROTTER	072264		080764		082164	011965											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6792	MC	1	25	A001	CC1	R	MURO		H PHILLIPS	100463		110163		111563	120563											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6763	MC		190	A	001	001	R STOTT		H PHILLIPS	100763		100863		102263	110163	B120524						06764	06765	06766		
06966	MC		190	A	001	C02	G WIKER		H PHILLIPS	123164		012764		020164	031964	B120524										
C6968	MC		190	A	001	003	R DELMURA	31	H PHILLIPS	021064		021864		030164	040264	B120535										
06973	MC		190	A	001	C04	R STOTT	31	H PHILLIPS	041064		041464		043064	083164											
C7100	MC		190	A	001	C04	H PHILLIPS		R STOTT	032664		033064		040364	021665											

JPL 1886 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7329	MC	1	93	W	001000	H	PHILLIPS	31	H PHILLIPS	041464		041564		043064	061164	88902541										
C7617	MC	1	93	R	C001C0	H	PHILLIPS	38	P PARKER	070764		071164		073064	012265							07523				

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	SUB ASSEMBLY CLASS	SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C6789	MC	1	96	A	001	CC1	D PASSELL		H PHILLIPS	100963	101063			101663	101563	B120521A										
C7101	MC	1	96	A	001	CC2	H PHILLIPS	31	D PASSELL	032664	033064			040364	012065											
C7777	MC	1	96	A	001	CC3	H PHILLIPS	31	G MOORE	100664	100864			101564	101264	B127575										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7821MC	197					A	J GALLO	33	A J GALLO	022465		031065		031565												
C68C4MC	197		ACC1CC	1A			K LOWE		H PHILLIPS	100463		111263		112063	120463	MC-4-325										
C71C2MC	197		ACC1CC	2H			PHILLIPS		D LOWE	032664		033064		040364	061164											
C7059MC	197		ACC1CC	2A			LOWE	33	N MULLEN	030264		032464		040364	061064	J86C0255B										
C6815MC	197		ACC1CC	3R			CASE		H PHILLIPS	121263		010264		011564	042064											
C7666MC	197		ACC1CC	4A			GALLO	32	A GALLO	071764		072964		081564	091764											
C7726MC	197		ACC1CC	5A			GALLO		A GALLO	081864		082464		082864	100164											
C78C7MC	197		ACC1CC	5A			SPEAR		A GALLO	100864		101764		110164	021965											
C7735MC	197		ACC1CC	6A			GALLO		A GALLO	081764		090264		091364	102064											
C7783MC	197		ACC1CC	7A			GALLO		A GALLO	111164		111364		121564												

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY PLACE	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7103	MC		198		001	000	H PHILLIPS		G WIKER	032664		033064		040364	021065											
C7638	MC		198		001	001	H PHILLIPS	32	W OSBORN	061964		071064		073064	012265							C7591	07637			
C7640	MC		198		001	002	H PHILLIPS	35	R KING	062964		071164		073064	081064			07699				07621	07622	07639		
C7699	MC		198		001	003	H PHILLIPS	32	W OSBORN	081064		081064		082064	012265				07640			07621				

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAPPROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPERCEDED BY	ECR'S: IN FULL: SUPERCEDES	ECR'S: IN PART: SUPERCEDED BY	ECR'S: IN PART: SUPERCEDES	ECR'S: REFERENCE				
C6755	MC	199	AC	01	CC	1R	BALLUFF		H PHILLIPS	092363		100763		101563	101563	B120533A										
C6756	MC	199	AC	01	CC	2R	BALLUFF		H PHILLIPS	092363		100763		101563	101563	B120522A										
C6757	MC	199	AC	01	CC	3R	BALLUFF		H PHILLIPS	092363		100763		101563	101563	B120529A										
C6758	MC	199	AC	01	CC	4R	BALLUFF		H PHILLIPS	092363		100763		101563	101563	B120531A										
C6764	MC	199	AC	01	CC	5R	BALLUFF		H PHILLIPS	092363		100863		101563	101563	B120524A						C6763	C6765	C6766		
C6765	MC	199	AC	01	CC	6R	BALLUFF		H PHILLIPS	092363		100563		101563	101563	B120524A						C6763	C6764	C6766		
C6766	MC	199	AC	01	CC	7H	PHILLIPS		H PHILLIPS	100763		100863		102263	101563	B120526A						C6763	C6764	C6765		
C6790	MC	199	AC	01	CC	8R	BALLUFF		H PHILLIPS	100963		101063		101563	101563	B120517A										
C6791	MC	199	AC	01	CC	9R	BALLUFF		H PHILLIPS	101063		101063		102263	101563	B120517A										
C6793	MC	199	AC	01	CC	0R	BALLUFF		H PHILLIPS	102463		110163		110163	110163											
C7104	MC	199	AC	01	CC	11H	PHILLIPS		D BALLUFF	032664		033064		040364	052064											
C7335	MC	199	AC	01	CC	12G	HENTOSZ	33	D BALLUFF	041364		041664		041564	052064	B120529						C7637	C7638			
C7591	MC	199	AC	01	CC	13R	KING	31	H PHILLIPS	061964		071064		073064	071764	B120533										
C7592	MC	199	AC	01	CC	14R	KING		R KING	061964		070864		073064	071764	CI 13862										
C7600	MC	199	AC	01	CC	15D	DROGOSZ	33	D DROGOSZ	063064		070964		073164	072864											
C7632	MC	199	AC	01	CC	16R	KING	35	R KING	062664		070864		073064	071764	B12435										
C7637	MC	199	AC	01	CC	17H	PHILLIPS	35	R KING	061964		071064		073064	071764							C7591	C7638			
C7648	MC	199	AC	01	CC	18R	BALLUFF		R BALLUFF	070164		071664		073064	100864											
C7802	MC	199	AC	01	CC	19R	KING		R KING	093064		100264		101064	102664	J131125										
C7408	MC	199	AC	02	CC	0D	DROGOSZ	33	D DROGOSZ	050764		050864		061564	072264	C7391										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7720	MC	2	C2				T MEYER		T MEYER	081764		082164		082764	111764											
C7815	MC	2	C2	R	C0C4	C01	T COCCA	33	T COCCA	111064		111864		112964	020865											
C7815	MC	2	02	R	C0C4	C01	T COCCA	33	T COCCA	111064		111864		112964	020865											

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP. PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7442MC	204	A	009	CCC			EDWARDS	34	C EDWARDS	051564		052764		061064	081764	J8400354										
C75C4MC	204	R	CCC	1CC			EDWARDS	34	C EDWARDS	060964		061664		062664	091164	J8902564										
C78C3MC	204	R	CCC	1CC		1D	PRISBREY	34	D PRISBREY	100164		100164		101064	010565	J8400354										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7328	MC	2	08	1001	CCCT		MEYER		M MOORE	041564		042364		043064	052764	J8902198										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65 STANDARD SUB-SYST REPORT PAGE NO. 001

ECR NO	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7434MC	2C9	W	C01	CC0	H		PHILLIPS	31	T MEYERS	051364		052764		060864	062564											
C7463MC	209	W	C01	CC1	B		HACKMANN	35	B HACKMANN	051464		052264		052564	061764	B8902063										
C7491MC	2C9	W	C01	CC2	J		SAVINO	31	T MEYER	060364		060864		061164	061764	8902507										
C7C75MC	2C9	W	C01	CC3	J		STOCKEMER	31	J STOCKEMER	061764		062564		070164	062564											
C7541MC	2C9	W	C01	CC4	T		MEYER	31	T MEYER	061764		070764		071464	070764	J8902513										
C7576MC	2C9	W	C01	CC5	R		CASE	31	T MEYER	061864		062464		071564	063064	J8902198										
C78C6MC	2C9	W	C01	CC6	T		ATKINS	31	D BENDIS	100864		101364		101364	012065											
C78C6MC	2C9	W	C01	CC6	T		ATKINS	31	D BENDIS	100864		101364		101364	012065											
C78C1MC	2C9	J	B0C	2CC	W		CONOVER		T MEYER	092664		100164		101064	111364	J8902507										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

DATE 3/25/65

STANDARD SUB-SYST REPORT

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7582	MC	2	20	W	01	000	J STOCKEMER	31	J STOCKEMER	062364		062564		061264	062564	8902545										

JPL 1556 SEPT. 63

CHANGE CONTROL REPORT

STANDARD SUB-SYST REPORT

DATE 3/25/65

PAGE NO. 001

ECR NO.	CODE: PROJECT	CODE: AREA	CODE: SUB SYSTEM	CODE: SUB ASSEMBLY CLASS	CODE: SUB ASSEMBLY NUMBER	CODE: SEQUENCE	INITIATOR	DESIGN RESP.	FOLLOW-UP ENGINEER	DATES: INITIATED OR VOIDED	DATES: VOID	DATES: APPROVED OR DISAP-PROVED	DATES: DIS.	DATES: SCHEDULED COMPLETION	DATES: COMPLETED	DRAWING NO.	MODIF. NO.	ECR'S: IN FULL: SUPER-CEDED BY	ECR'S: IN FULL: SUPER-CEDES	ECR'S: IN PART: SUPER-CEDED BY	ECR'S: IN PART: SUPER-CEDES	ECR'S: REFERENCE				
C7755	MC	2	89	A	00000	CG	MROZ	31	G MROZ	090964		091064		092564	011865											

JPL 1556 SEPT. 63

APPENDIX F

Mariner Mars 1964 P-List

Following the precedent established on the *Mariner* Venus 1962 Project, a P-list was generated to focus attention upon and keep cognizant individuals informed of all problems that were considered jeopardizing to the mission. By agreement with the JPL technical divisions, once a problem was serious enough to be placed on the list, the most effective people available were assigned to its solution. In order to preserve its emphasis, the final list, presented in this appendix, was not issued until about 4 months before spacecraft delivery to Cape Kennedy.

The list duplicated a problem/failure report in some instances but it was broader in scope; when issued rapidly and used judiciously, it was an effective tool. Essentially, it focused attention upon those problems most in need of resolution. The composite P-list summary shows that the average response time to resolve a problem was 27.8 days, the maximum response time was 134 days, and the minimum time was 1 day.

Composite Mariner C "P" List
(A list of problems considered to be jeopardizing the mission)

P-No.	System	Problem Description	Primary Responsibility for Resolving Problem Assigned To	Design Assistants	Date Assigned	Date Resolved
P-1	SC	DAS MC-5 RT on MC-4 for shake and 10 day Sim. test. MC-6 delivered to SAF 8/31. MC-7 delivered to JPL 9/17. It is intended that MC-7 be subjected to TA testing but a final decision to proceed will not be made until delivery, and the situation can be reviewed. This item is closed.	K. Linnes (32)		4/29	9/10
P-2	SC	Flight Assemblies Delivery to SAF Subsystem deliveries still open: MC-5, Radio	J. Bryden (33)		5/6	9/25
P-3	SC	Daleohm Resistors Opens experienced due to corrosion. These resistors are used in DAS, Scan, UV, TV, Radio, D/E, Tape recorder, Power, CC&S, A/C elect, Pyro. This item is considered closed out based on Lockyear/Paul IOM of 15 May 1964, "The Use of Daleohm Resistors on Mariner and Ranger Equipment" and the D. Schneiderman IOM of 21 May 1964 to Mariner C List No. 2 "Daleohm Resistors on Mariner C."	F. Paul (15)		5/6	5/22
P-4	SC	Canopus Tracker Image dissector tube wouldn't survive vibration. "Thin wire" passed on PTM (6/3). "Thick wire" passed on fixture (6/5). A second TA test on the "thick wire" resulted in failure. The "ruggedized" tube may have to be rushed through fab., qualified and used as the flight version. The decision is to fly either "thick wire" or ruggedized versions (7/8) MC-2 "thick wire" at SAF (7/8). This item is considered closed, however P-15 will remain open until flight units are delivered to SAF.	R. Forney (34)		5/6	6/6
P-5	SC	RF Power Amplifier Inadequate power margin at encounter. Decision is to fly hybrid system, RH7C-C cavity and TWT. This will be removed from "P" list when flight units are delivered to SAF. MC-2 hybrid system to SAF 7/8. MC-3 delivery to SAF 7/20. MC-4 subjected to inadvertent thermal shock (-200°F) at ETL on 8/2 subsequent tests revealed no damage and MC-4 del. to SAF 8/8. MC-5 due at SAF now 8/15. This item will be removed from "P" list.	R. Mathison (33)		4/13	6/10
P-6	SC	Autopilot/Propulsion Midcourse maneuver stability not verified. SMIT on PTM to date indicates this problem is resolved. Closed out.	D. Acord (34)		5/6	5/21

P-No.	System	Problem Description	Primary Responsibility for Resolving Problem Assigned To	Design Assistants	Date Assigned	Date Resolved
P-7	SC	TV Tube Will not survive vibration. 5/16, (so called Saturn type) passed sine, failed noise. 5/16, decision to soft mount tube itself, will deliver flight qualified TV to SAF on 6/15. TA temp. tests on soft mount progressing satisfactorily. This problem considered by 32 to be out of the woods. Will close out when flight units are delivered to SAF.	H. Trostle (32)	D. Allen (32)	5/6	6/4
P-8	SC	SC System Anomalous behavior during encounter mode on 23 April simulator test. Problem is isolated to UV. See P-11, P-8 is closed.	J. Casani (31)		5/6	6/2
P-9	SC	Transponder Tuning capacitors subject to gold plating flakes or dust creating shorts. All will have to be replaced (100/ transponder). 1st rebuilt unit back from Motorola. Passed re-FA (6/11). This item considered closed.	J. Bryden (33)	T. Cocca (33)	5/22	6/11
P-10	LV	Agena Propellant Containment System No confirmation of 2 burn capability. Some progress is being made with the AF to fly a 2 burn similar to our mission requirements. It appears that there will not be a confirmation flight prior to Mariner. As a result it has been decided to use the 0.1 lb control gas thrust system. Because no further action is contemplated this item will be removed from the list, however it is still an area of concern.	G. Haddock (31)		5/22	8/7
P-11	SC	UV 4/23 anomaly isolated to UV. Trouble in UV is suspected to be hi-voltage arcing in power supply. The UV experiment has been removed from the SC complement. This item closed.	H. Trostle (32)	C. Barth (32) D. Margetts (32) E. McMillan (32)	6/3	6/26
P-12	SC	Inadvertant Switching of Power Amplifiers and Exciters This occurred during system test on both MC-2 and MC-3. Corrected by desensitizing the interface by reducing the input impedance from 220K to 1K. ECR No. 7636. This item is closed.	J. Casani (31)	T. Cocca (33)	6/12	7/10
P-13	SC	Scan Actuator During MC-3 system test neither the MC-3 unit nor the spare would operate properly. Isolated to a bearing problem. These bearings were reworked to agree with the specs and/or prints to the intended surface condition and clearances. Details covered in IOM J. Wilson to W. Collier. Considered closed.	J. Wilson (35)		6/12	7/13

P-No.	System	Problem Description	Primary Responsibility for Resolving Problem Assigned To	Design Assistants	Date Assigned	Date Resolved
P-14	SC	Power Amplifier Power Supply During FA thermal vac of MC-2 the cavity supply exhibited 40 V osc. The TWT supply failed to go from warm-up to full power. As of 7/13 the power supply is suspected of causing the loss of 2 TWT's. MC-2 is using a mod power supply and the ser No.1 TWT for the 25' Sim testing. Cavity Supply - inadequate testing prior to start of FA. TWT warm-up to full power caused by arc due to bubble in potting, all units now new build and vac potted at JPL. Loss of 2 TWT's due to charge buildup, fix is adding bleeder network to power supply. In addition all TWT tubes are now being subjected to an overvoltage test as part of acceptance. This item closed.	R. Mathison (33) J. Bryden (33)		6/29	7/20
P-15	SC	Canopus Tracker Power Supply During the 25' simulator test for MC-2, a failure occurred in the Canopus tracker system resulting in inability to track. The power transformer in the hi volt power supply had failed. It was necessary to replace the random wound transformers with new stack wound transformers. This will remain on the "P" list until flight units are delivered to SAF. MC-2 flight unit will be delivered at AMR. The hi voltage transformer problem is considered closed. However, the Canopus units are not delivered to the SC due to a Triad transformer rebuild, see P-24.	D. Acord (34)		7/15	9/1
P-16	SC	Power System Due to improper mounting of the power transistors a thermal problem exists. It is necessary to change some transistors and correct the mounting in the flight units. Results of survey showed no problem in MC-2, three transistors replaced in MC-3, six in MC-4, five in MC-5. This item is closed.	D. Acord (34)		7/31	8/6
P-17	SC	MC-2 Exciter Switching The MC-2 unit continues to experience random and unplanned exciter switching (DC-25 and gyros off are primary offenders). Resolved with ECR 7702 - capacitor added in command switch. This item closed.	J. Bryden (33) J. Casani (31)		8/7	8/14
P-18	SC	SC Equipment Screw Retainers (Caps) During MC-2 final inspection retainer caps were found distorted and in some cases pushed clear out. At least one cap was found between printed circuit board layers. Are we certain that all are accounted for? Several of these were found during MC-3 inspection also. Inspection procedures and records are able to assure that new push outs are noted and would be looked for and located. Depth gauges and jigs have been furnished to minimize these occurrences in the future. This item is closed.	R. Welnick (15)		8/13	9/10

P-No.	System	Problem Description	Primary Responsibility for Resolving Problem Assigned To	Design Assistants	Date Assigned	Date Resolved
P-19	LV	LMSC Instrumentation (Miles and Accelerometers) mounted on the adapter was faulty, found during MC-2 and 3 shake. The mike is being replaced with an accelerometer. The chances are that this will not be a flight qual system for Mariner. LMSC vibrometers, qualified by similarity only, are avail. and being installed at ETR. All action that needs to be taken before launch has been taken. This item no longer considered to be jeopardizing the mission. This item is closed.	N. Williams (31) J. Maclay (31)		8/17	10/21
P-20	SC	Plasma Probe During MC-3 chamber test the plasma probe experienced arcing. This creates interference with the CRT and CDD. The same result was experienced with a replacement cup. Investigation showed some indication of the same problem in the PTM tests. MC-2 and MC-4 spacecraft appear to be OK. The insulating washers and spacers for the cup are being redesigned and were aboard during the SC MC-4 25' Simulator test and finished the test without incident. The decision as to what or how to fly will be made prior the October 7 meeting. This "P" item is closed.	H. Trostle (32) R. Sloan (32)		8/19	9/24
P-21	SC	Triad Transformers A lot "test to destruction" was run on some of the newly built transformers consisting of primarily a thermal shock test (this was proven to be a damaging environment for the old build). No failures were induced in this test. This item is closed.	D. Acord (34)	W. Lockyear (15)	8/21	10/5
P-22	SC	Magnetometer - Noisy Operation During the "final" current loop encounter sequence on MC-2, what had been recognized previously as system noise was determined to be a magnetometer problem. This, if not corrected, will probably result in a loss of meaningful science data at encounter. The fix was the addition of filtering in the power supply module. During potting compound curing the temp chamber "ran away" to -150°C and ruined two flight units. This means the PTM unit may have to fly as there is only one actual flight qual unit left. A new built unit was installed on MC-4 during the vac break. The decision as to which serial No. will fly will be made prior to the October 7 meeting. This "P" item is closed.	H. Trostle (32) R. Sloan (32)		8/21	9/24

P-No.	System	Problem Description	Primary Responsibility for Resolving Problem Assigned To	Design Assistants	Date Assigned	Date Resolved
P-23	SC	Daleohm Resistors again Tests on potted resistors are being run and this will remain on the list until testing indicates that it may be removed. Tests are not yet complete, results to date are negative (no problems). During the week of 10/19 an interim evaluation of available data will be made. No new problems have been uncovered to date. This item is now closed even though tests will continue for several months.	D. Acord (34) W. Lockyear (15)		8/31	10/21
P-24	SC	Canopus Trackers Due to rebuild required by Triad transformer the delivery of flight units is extremely late. Shipped MC-2 9/30, MC-3 9/30. MC-4 expected ETR 10/16, MC-5 10/18. This item will be closed when MC-4 delivery is accomplished. Sensor S/N 003 shipped for MC-4 S/C on 10/15. Serial 102 is committed for launch on S/C MC-2 while Serial 104 is assigned to S/C MC-3. This item is closed.	D. Acord (34)		9/1	10/15
P-25	SC TPS	During MC-3 Space Simulator test some TV pictures were recorded as all O's. Subsequent SC playback from the flight tape recorder showed the pictures to be OK. In addition the bit error rate during these tests was abnormally high. A report is due from T. Miller on this investigation. The all "O's" were determined to be due to an intermittent science OSE amplifier, and a TPS core memory marginal condition contributed to the line drop problem. P/FR No. 7122 will be closed upon receipt of IOM's covering these incidents. This item will be closed at that time. Documentation of this situation was completed with the closure of P/FR 7122. This item is closed.	D. Hess (37) T. Miller (37) R. Sloan (32)		9/2	10/12
P-26	SC	During MC-4 Space Sim test the pressure rose (loss of vacuum) abruptly to within the critical pressure area. The SC was subjected to many transients (arcs, corona, etc). MC-4 was returned to SAF for tear down and inspection before proceeding with remaining tests. The Ion chamber gm tube was wiped out and the helix current monitor in the TWT power supply was damaged. Both these units had to be replaced. A question was raised about the TRD window (will go to Iowa enroute to ETR) and a blister or bubble on the CDD. MC-4 spacecraft back in chamber on 9/11 and completed its tests without incident. This "P" item is closed.	All Div. Reps		9/4	9/24

P-No.	System	Problem Description	Primary Responsibility for Resolving Problem Assigned To	Design Assistants	Date Assigned	Date Resolved
P-27	SC	A/C Electronics connectors During final inspection the A/C electronics unit failed pin retention test on MC-2, 3, 4. Napkin rings were found to be broken and special tooling was made up to replace these rings. This item will remain open until the ring replacement is qualified. The normal procedures used to date in cases where pin retention is low should continue to be used and the ring replacement considered as a last resort. Tests have shown the sockets with replaced rings to be satisfactory when a limited number of insertions have followed such replacement. This item is closed.	R. Thompson (35)		9/14	10/6
P-28	SC	MC-4 Radio During re-FA prior to del to SAF after exciter retune the receiver sens threshold was noted to drop about 12 db at +55°C. Repaired and retuned at Motorola. During subsequent vacuum tests at JPL, the power was left on during pump down, arcing occurred. TWT power supply and cavity ampl tube damaged. Repairs have been affected and the subsystem is expected to be at SAF on 10/6. Its ultimate use (1st or 2nd flight spare) is undecided. This item is closed.	D. Balluff (33)		9/28	10/5
P-29	SC	MC-3 TV Degradation of vidicon sensitivity. Where will analysis be performed? What spares are available and are they still suitable for flight? The problem was subsequently traced to incorrect calibration technique. Vidicon sensitivity was normal when proper source and filters were used. This item is closed.	Trostle/Sloan (32)		10/15	10/16
P-30	SC	Canopus Tracker/Earth Sensor At a very late date it has been determined that the Earth sensor cannot resolve the ambiguities that the Canopus sensor may experience. It is not possible to determine with just the combined Canopus tracker and Earth sensor outputs that Canopus specifically has been acquired. This has a very serious effect on the entire s/c flight operations philosophy (use of commands). Project requires that contingency plans be studied, prepared and coordinated with all affected Divisions based on magnetometer outputs, antenna patterns, etc., with the emphasis directed toward solving the problem, if possible, without the use of commands. A plan is generated which will identify Canopus but has a high probability of requiring at least one roll override command. Although this is a matter of concern, it is felt that it may be removed from the "P" list as an understood problem. This item closed.	D. Acord (34)	R. Sloan (32)	10/20	11/4

P-No.	System	Problem Description	Primary Responsibility for Resolving Problem Assigned To	Design Assistants	Date Assigned	Date Resolved
P-31	SC	Ion Chamber During MC-4 system test the ion chamber data did not correlate with previous data for this serial No. ion chamber. It will be returned to JPL for calibration and analysis. JPL calibration proved inst. OK. Cause, misplaced source during Cape test. Returned. This item closed.	R. Sloan (32) H. Trostle (32)		10/21	10/30
P-32	SC	Gyro Electronics A series resistor in the pitch torquer on the MC-3 s/c unit has either changed value or was an incorrect value from original assembly. Determined by Lockyear's people to be an isolated case. The failure mode of these resistors is such as to not have catastrophic effect on mission. This item closed.	D. Acord (34)		10/21	10/28
P-33	LV	Atlas GE Rate Beacon The 5 rate beacons presently assigned to Mariner C have been declared non-flight by GE. GE hopes to rework an additional 5 units and have them at the Cape in time for J-FACT. Del. 10/27. Three replacement flight rate beacons were delivered to the Cape in time for J-FACT. This item closed.	N. Williams (31)		10/21	10/28
P-34	LV	Atlas Autopilot Programmer During J-FACT on LC-12 the programmer showed abnormal operation. Both Atlas 288 and 289 units were returned to GDA. It was then decided by GDD to replace these with units taken out of stock and carefully inspected. The unit which exhibited abnormal operation was indeed a faulty one (broken wire and bad tant. caps). The second unit was disassembled to a similar level and found to be OK. The spare units will be flown. This item is closed.	N. Williams (31)		10/21	10/28
P-35	LV	Agena Power Converter IX Several failures of these units in recent weeks have caused sufficient concern to worry about launching these units. B. Morris is heading a team of JPL people to investigate JPL experience with like units to make recommendation to JNJ. AF, LeRC, etc., are also investigating. All failures of these units have been explained except for the AF flight of a few weeks ago. The LC-12 failure (took out four transistors) is suspected of being a facility problem and is to be investigated and reported on prior to launch from that pad. LC-13 is cleared for launch. This item will remain open until J-FACT 11/23. Successful J-FACT's were run on 11/18 and 11/23. No further action is planned on this item, and the launch will proceed. This item is closed.	B. Morris (15)		10/29	11/24

P-No.	System	Problem Description	Primary Responsibility for Resolving Problem Assigned To	Design Assistants	Date Assigned	Date Resolved
P-36	S/V	Shroud It is now evident that a failure in the shroud system occurred during the Mariner C launch. LMSC is preparing a metal shroud for launch. The vented fiberglass shroud is backup. A metal flight shroud has been delivered to ETR and a second shroud is undergoing tests. A meeting at ETR on 11/25 will determine the state of readiness to meet a launch of 11/27. It was concluded that the shroud was ready. This item is closed.	J. Gerpheide (29)	J. Wilson (35) J. Schmuecker (35) J. Schaffer (29)	11/13	11/26
P-37	SC	Crystal Oscillator During the Mariner C flight there are indications that the crystal oscillator of the RF system experienced a possible failure (low power). This is still under investigation (11/24). It was determined that there is sufficient redundancy in this subsystem and the launch should proceed. This item is closed.	R. Balluff (33)	R. Mathison (33)	11/13	11/25
P-38	SC	NAA and WAA During the Mariner 3 flight a DC 25 was transmitted. Both the NAA and WAA indicated an acquisition concurrent with science cover removal. No satisfactory explanation is yet available. The effects of this anomaly, if it should occur in flight, can be corrected by ground commands and any fixes that might be made before launch would use up many launch days. It was concluded to proceed with the launch. This item is closed.	R. Sloan (32) H. Trostle (32)		11/18	11/25

APPENDIX G

Progress Monitoring Devices

The progress of the events listed in the *Mariner* Mars 1964 master schedule was reported regularly to NASA Headquarters. These same milestones were also listed in the *Mariner C Project Development Plan* (together with the signature concurrence of the system managers), and from them a series of more detailed schedules was generated. These schedules, samples of which are presented in Part I of this Appendix, formed the basic progress reporting structure. Major schedule revisions were made several times during the life of the project. (The schedules were updated about eight times.)

To control the interval between the time that the system was defined and the time that flight-qualified assemblies were delivered to SAF, another set of schedules was prepared. These schedules were more detailed, but intentionally not so extensive as to require handling by a computer. They pertained exclusively to the development of the spacecraft. They resembled PERT in format and intent and were called flow charts. Examples of the flow charts are given in Part II of this appendix. The diversity of the format was of less concern than the accuracy of the information given and the ability of the organizations to meet or better their agreed deadlines.

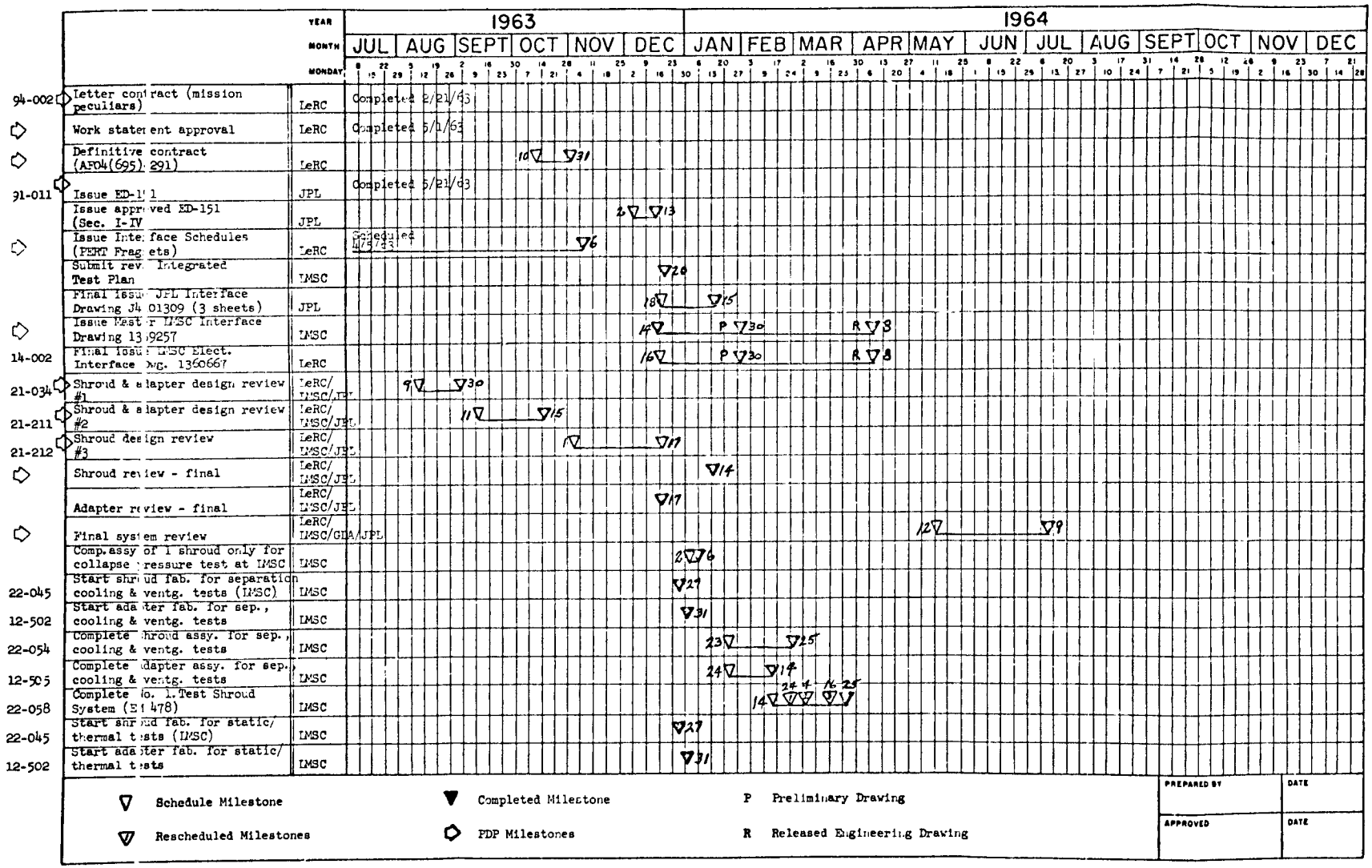
The Project Representatives were required to submit reports biweekly on their progress as compared to their own flow charts. With each 2-week cycle, new completions were noted or new estimates of completion were given on the single sheet that continually recirculated between the Project Representatives and the staff charged with compiling the results. To facilitate compilation of a composite report and to enable the conditions to be categorized by each division, subsystem, Spacecraft System, hardware document, due date, slip time, or test progress, a manual-sort card system was used. One of these cards is shown in Part III of this appendix, and illustrates the manner in which the information was keyed. The delinquent flow charts were tabulated biweekly and reports were submitted to project management, division management, and Project Representatives. These lists of delays were also worked into graphs, the curves of which were considered more informative as trend indications than as absolute measurements. The combination of the "overdue bill" and trend graph, illustrated in Part III of this appendix, enabled division management both to sense improvement or degradation and to pinpoint the troublesome areas.

During various stages of the project, special working report formats and techniques were evolved to focus attention on existing or expected problems. Special charts were made that showed the estimates and actual accomplishment of hardware delivery to SAF. From these charts, shown in Part IV of this appendix, test operations personnel could plan their day-to-day activities. Essentially, each special chart was derived from flow chart inputs. The special charts show repetitious slips that clearly indicate the inability to predict delivery.

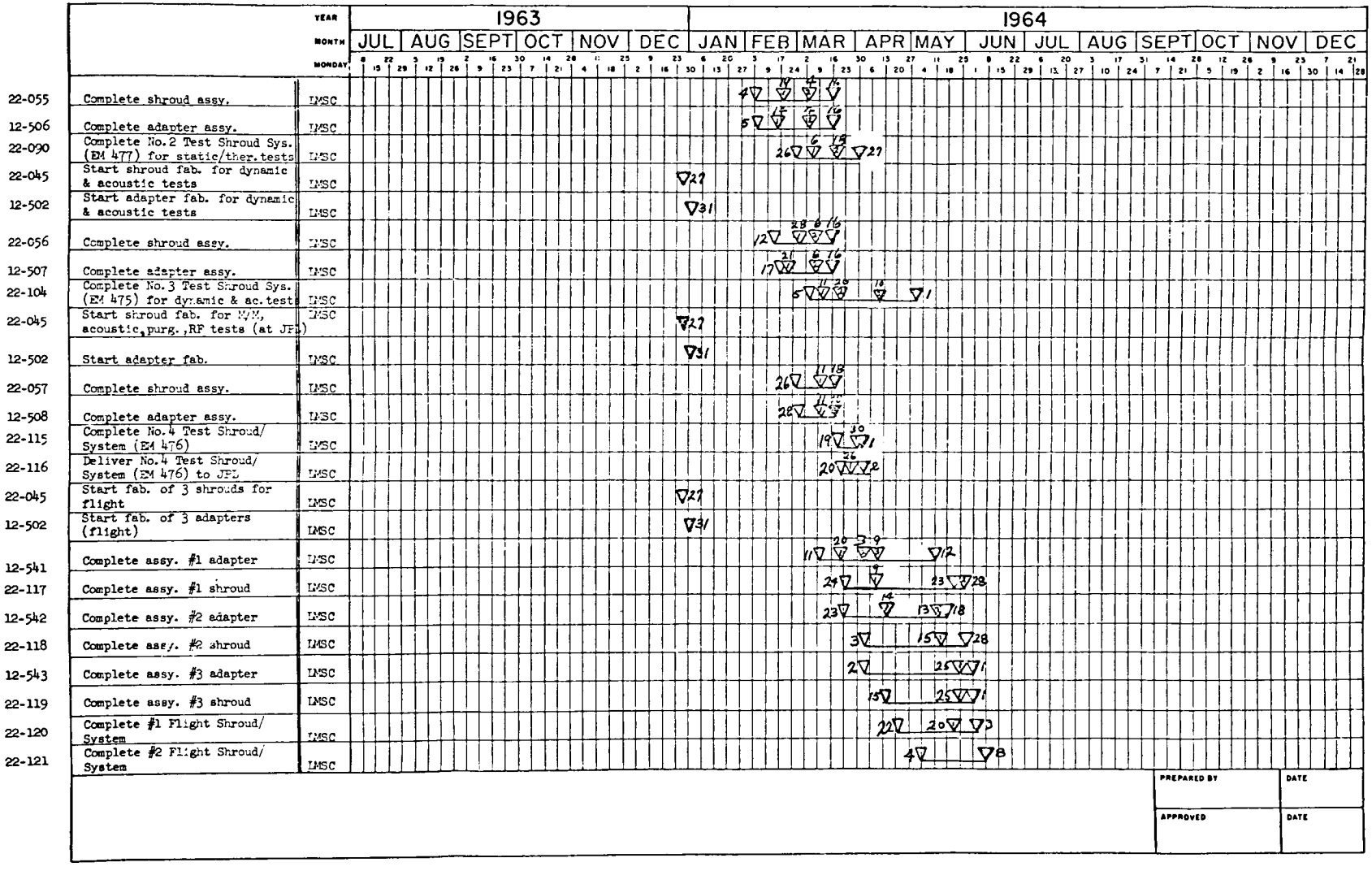
Another form for presenting this information was derived from a merging of flow chart reports and QA status logs from SAF. These matrixes, reproduced in Part V of this appendix, indicate the system-level test exposure obtained by the various subsystems on a given spacecraft. While they were used primarily to decide the choice of equipment for flight, they also show the extent to which subsystems were exchanged among spacecraft during the Pasadena and Cape Kennedy qualification testing.

I. TYPICAL SCHEDULES

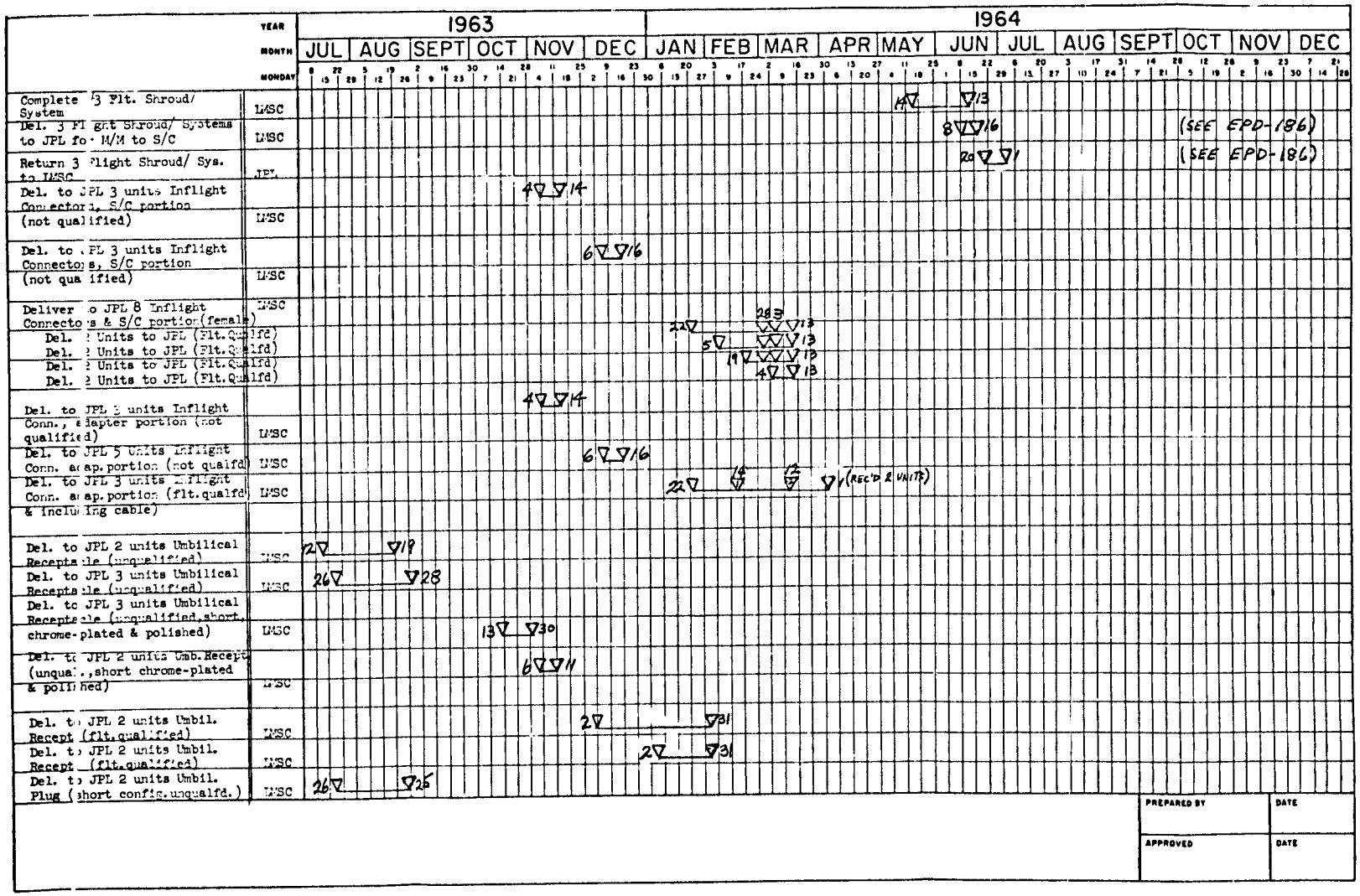
Launch vehicle integration schedule



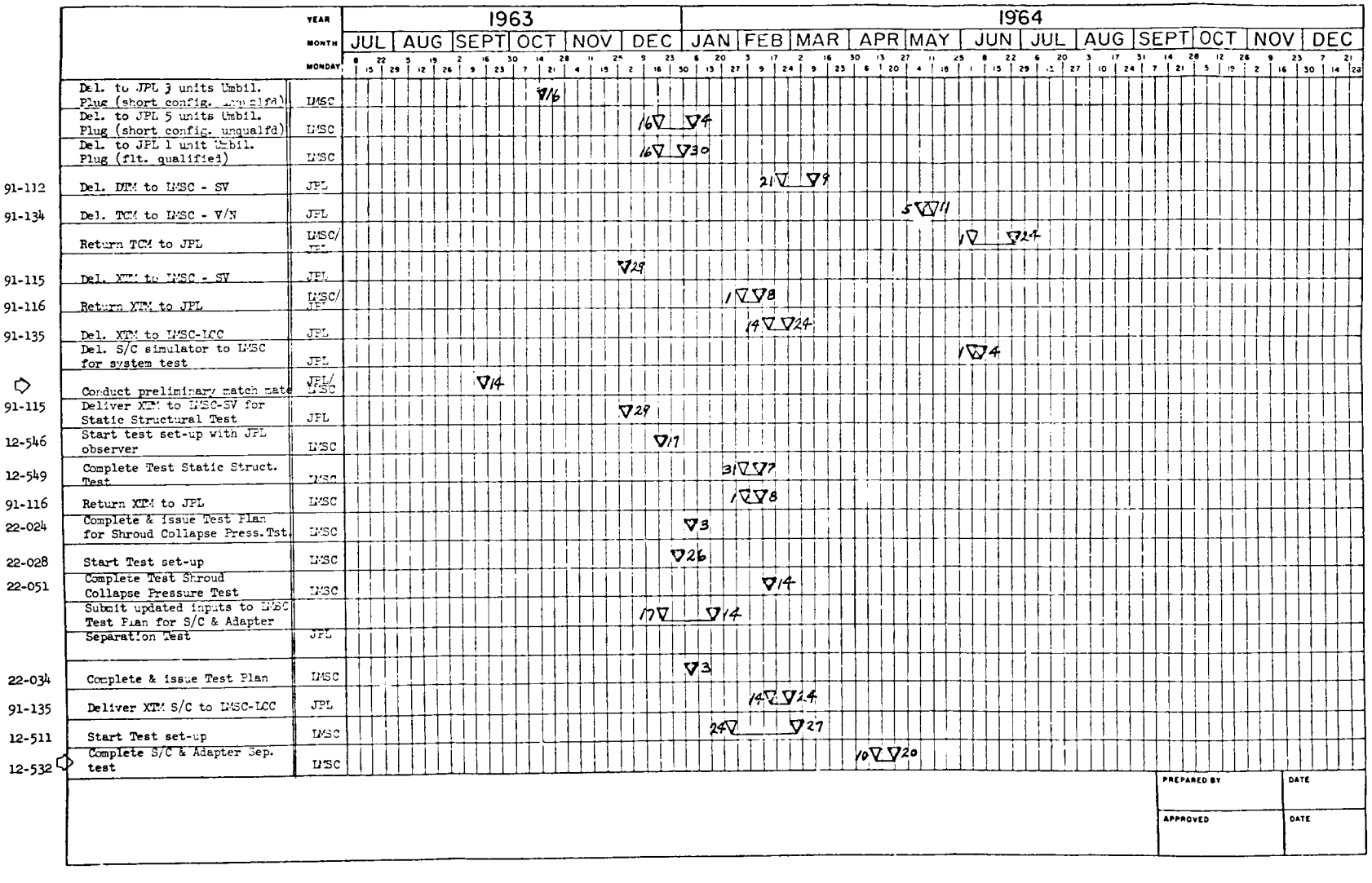
Launch vehicle integration schedule (Cont'd)



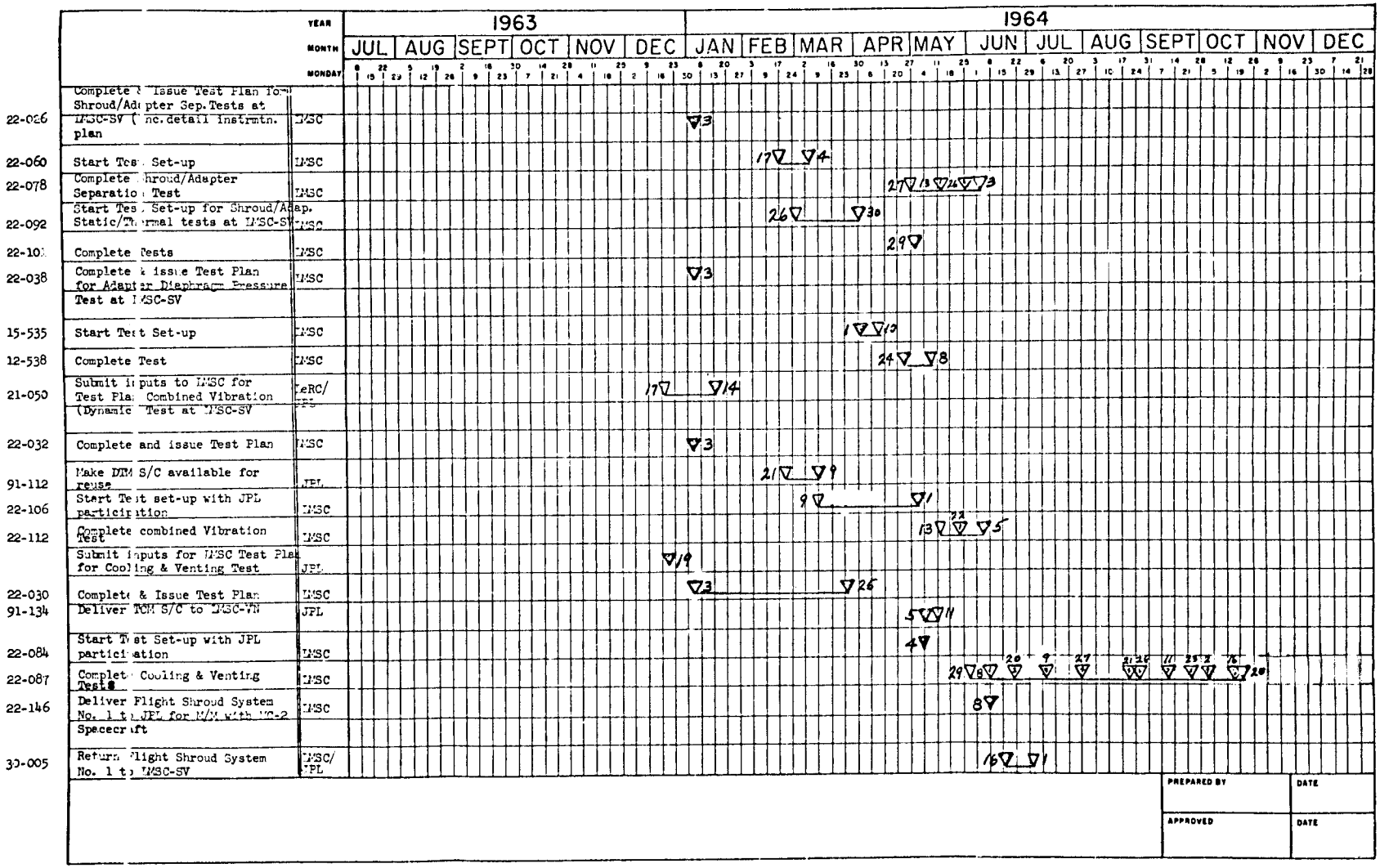
Launch vehicle integration schedule (Cont'd)



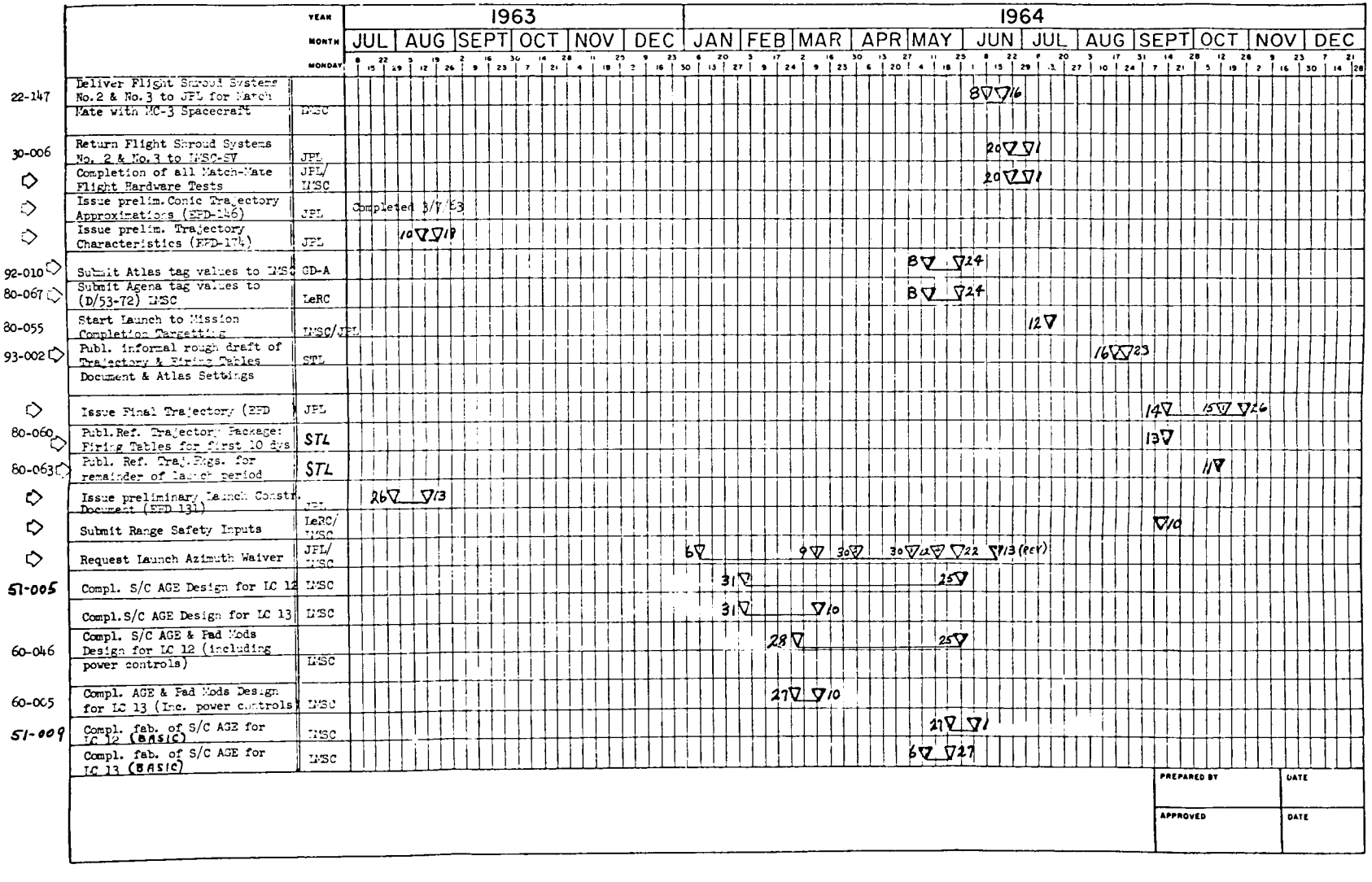
Launch vehicle integration schedule (Cont'd)



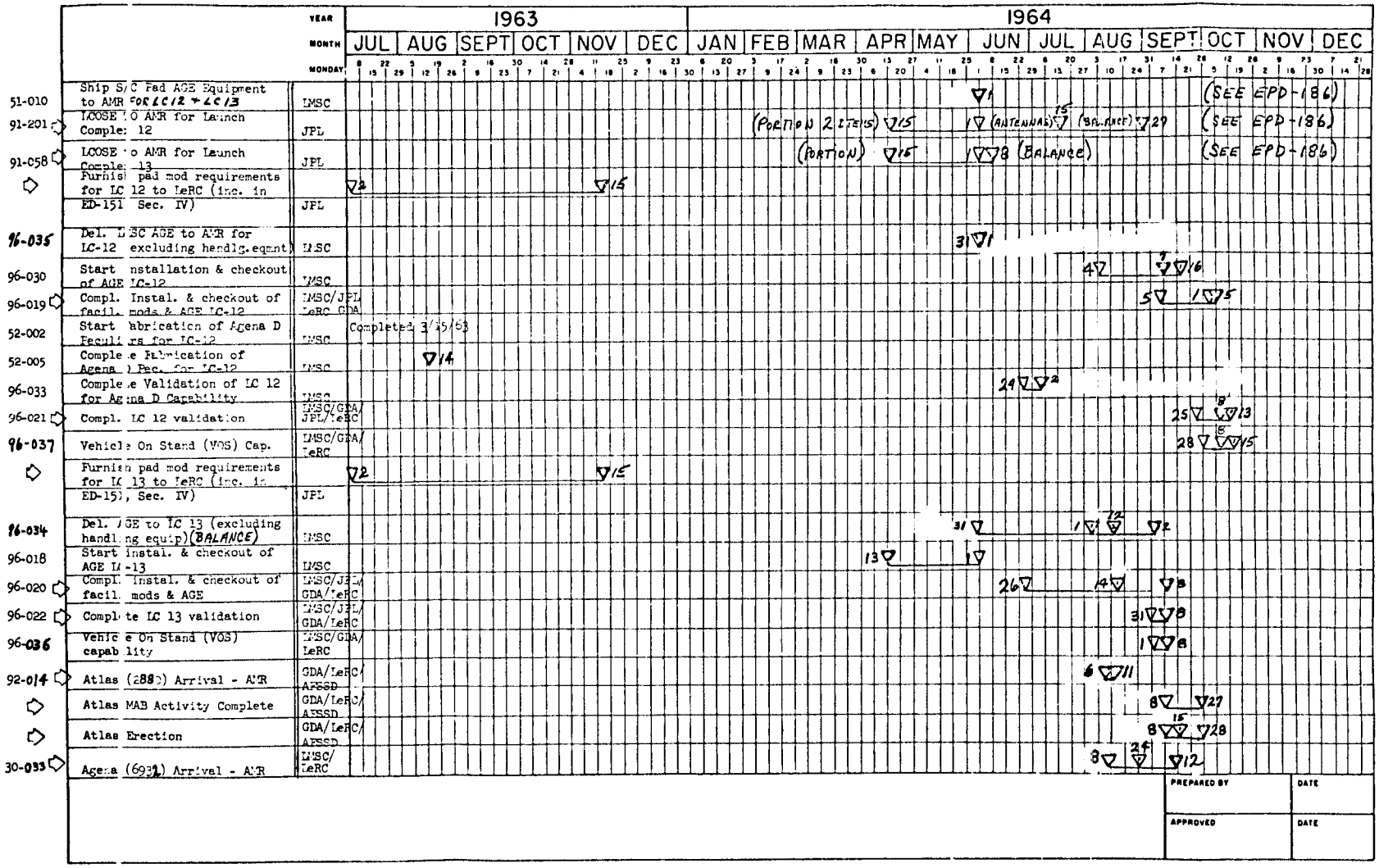
Launch vehicle integration schedule (Cont'd)



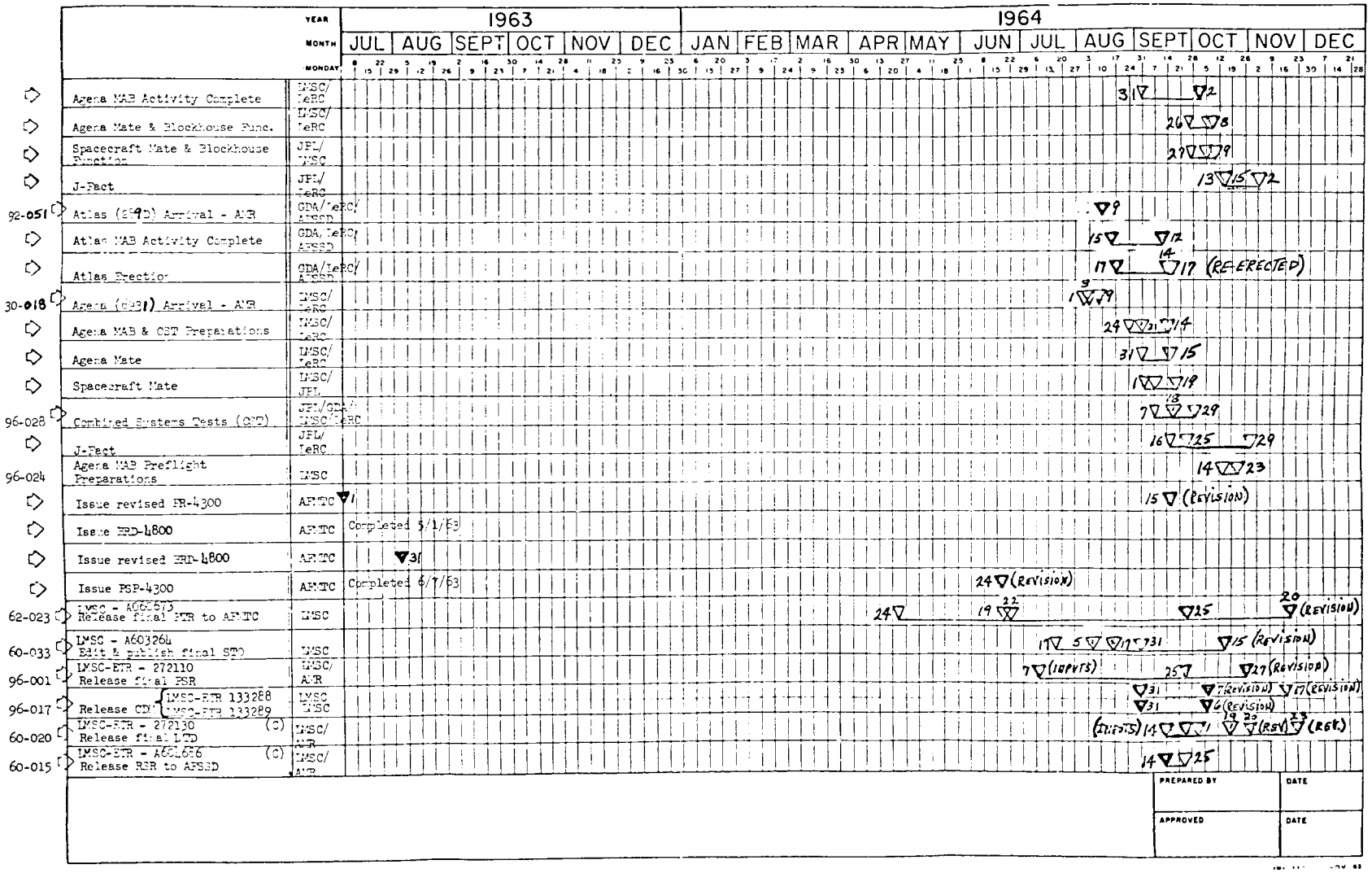
Launch vehicle integration schedule (Cont'd)



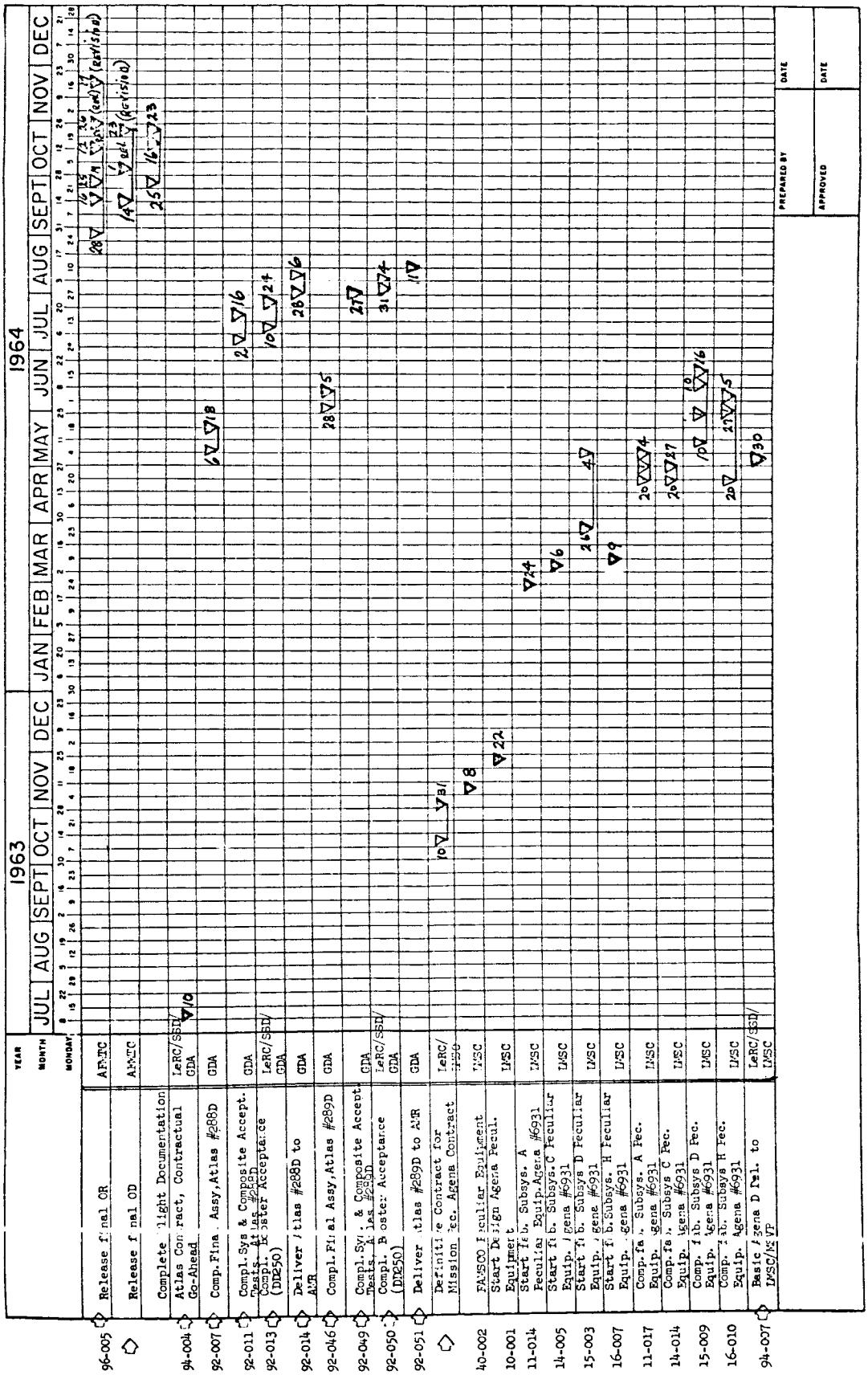
Launch vehicle integration schedule (Cont'd)



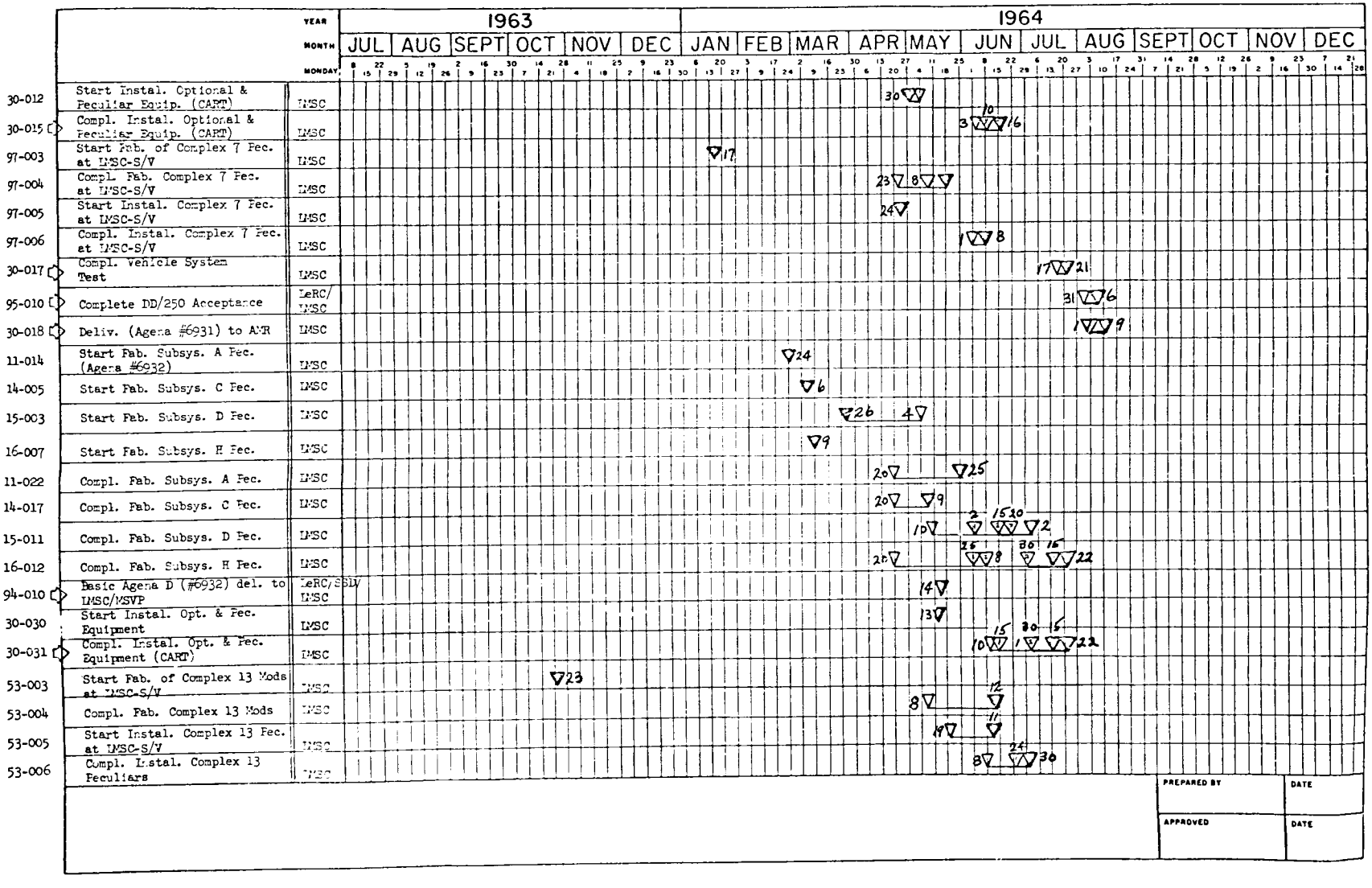
Launch vehicle integration schedule (Cont'd)



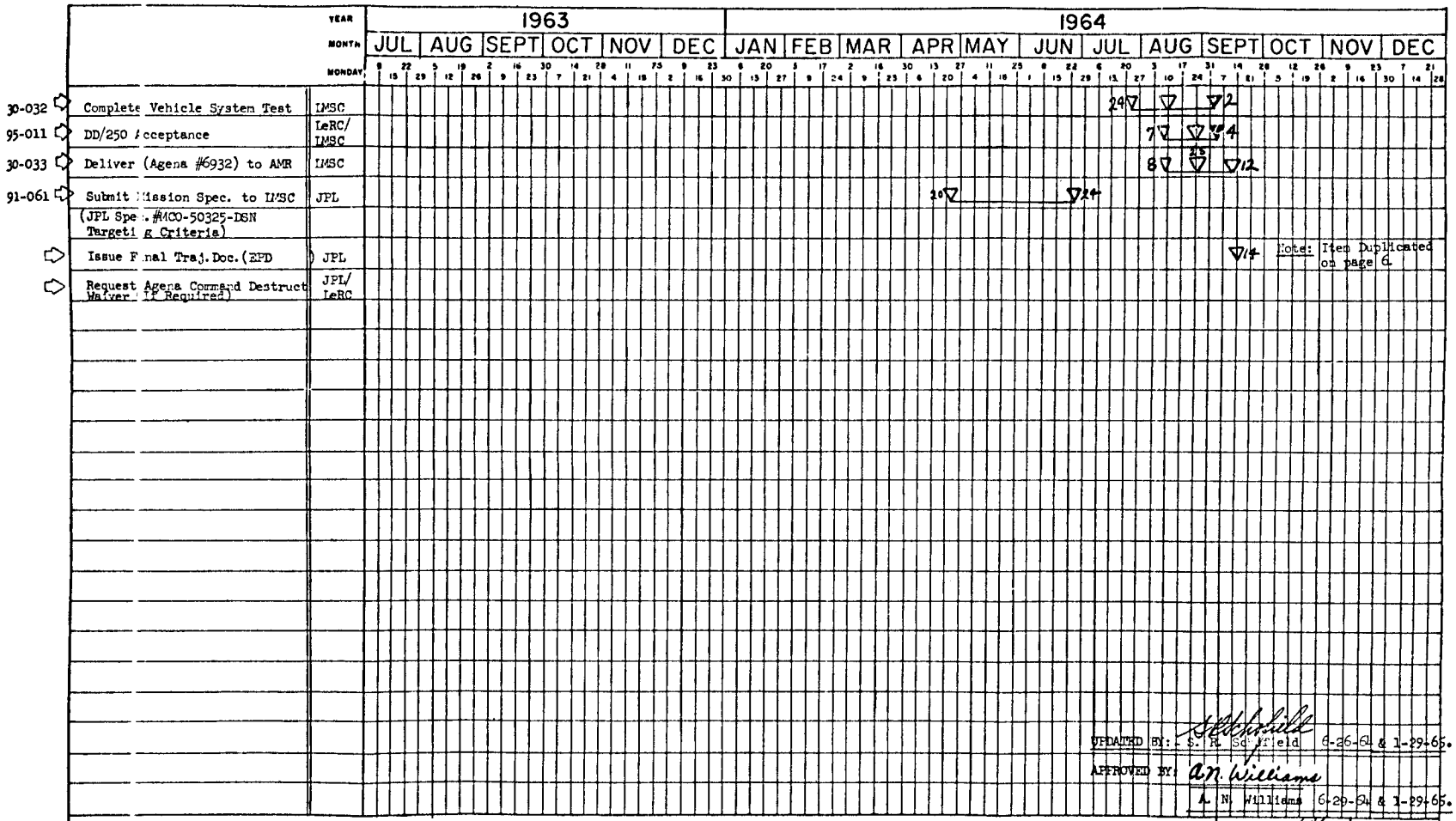
Launch vehicle integration schedule (Cont'd)



Launch vehicle integration schedule (Cont'd)



Launch vehicle integration schedule (Cont'd)

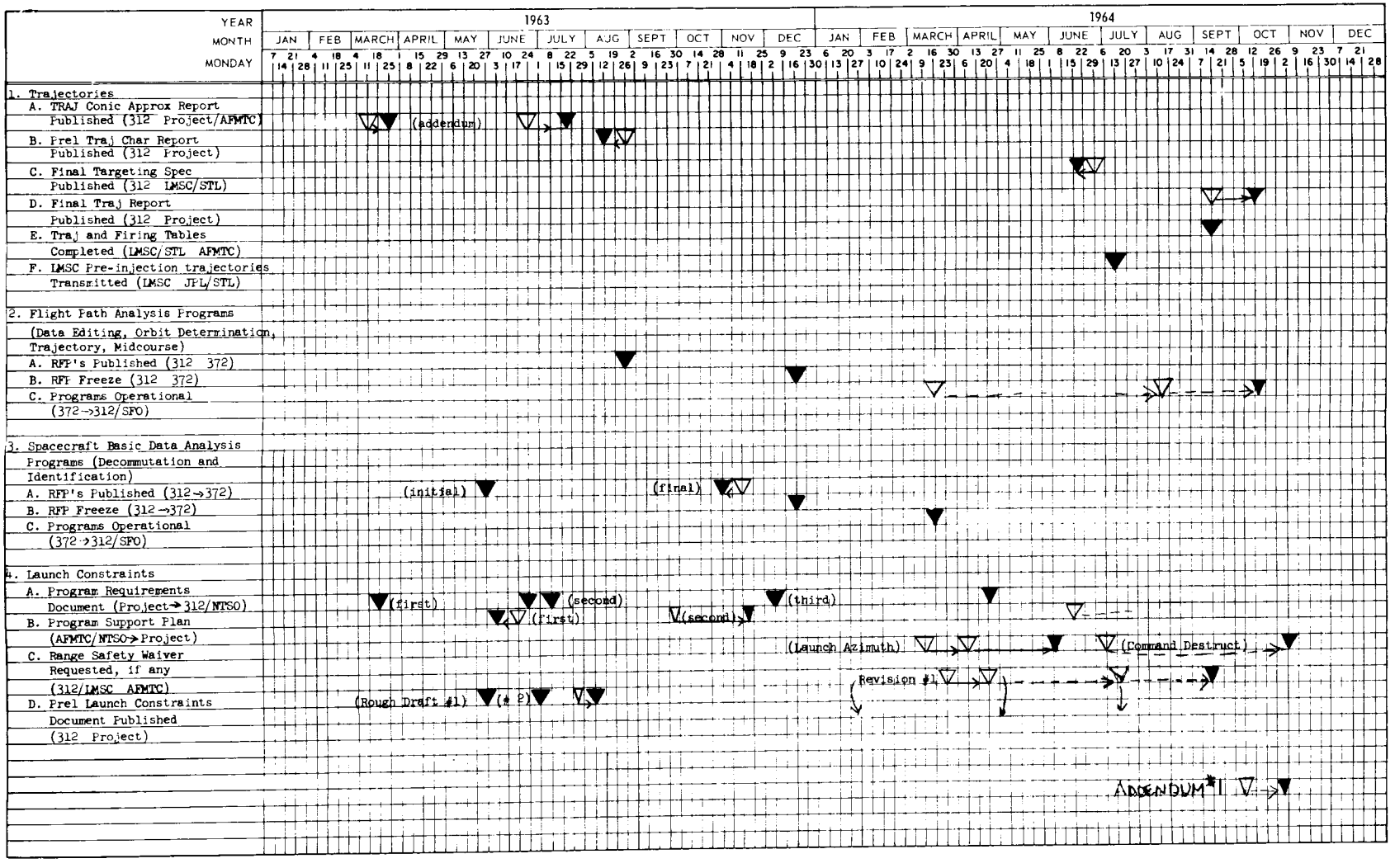


▽ Schedule Milestone
▽ Rescheduled Milestones
P Preliminary Drawing
I Inputs
Rev. Revision
▼ Completed Milestone
◇ FDP Milestones
R Released Engineering Drawing
M Memorandum

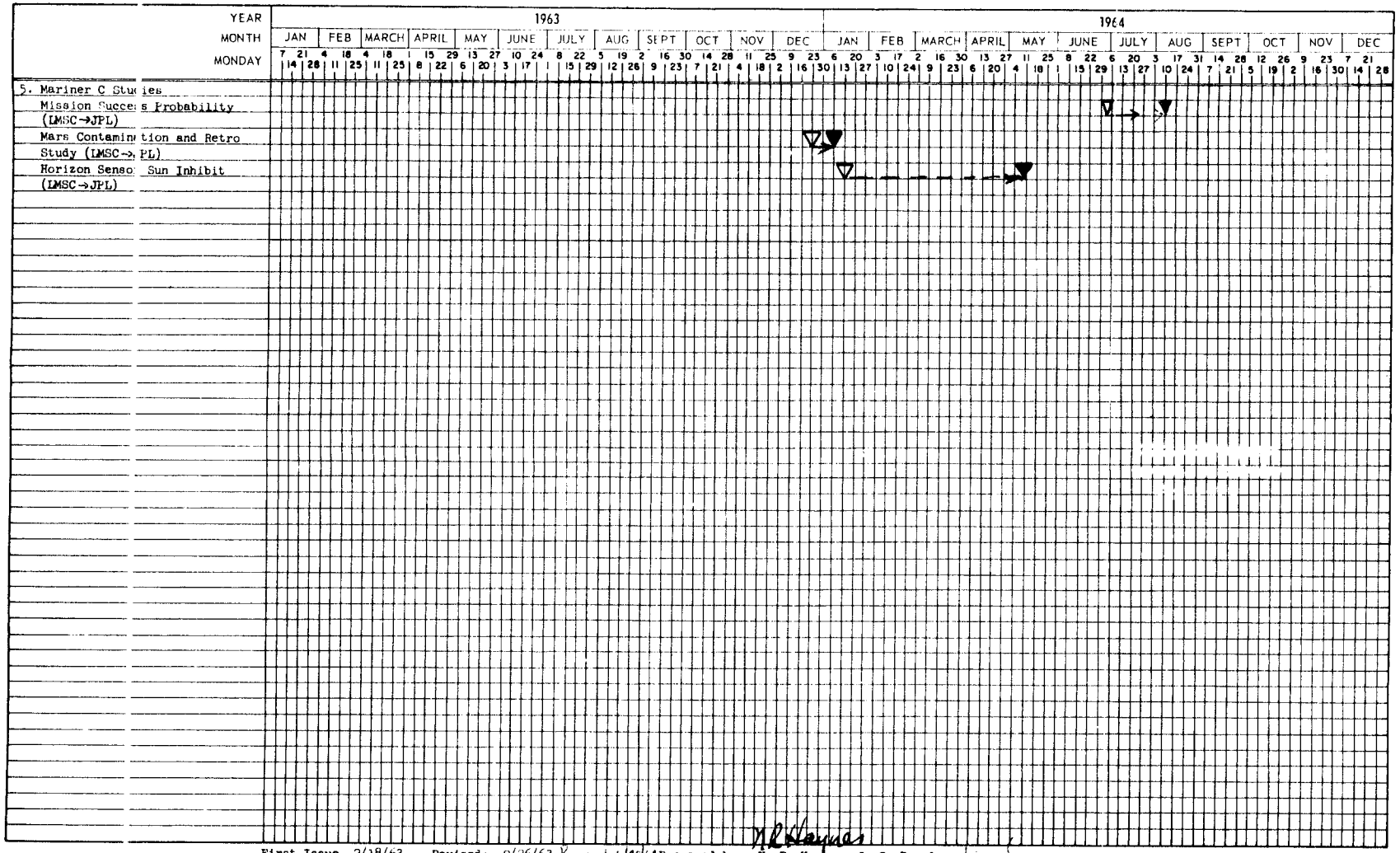
Approved by: H. J. Margraf
H. J. Margraf, Chief
Launch Vehicle Systems Section

PREPARED BY	DATE
S.R. Schofield	3/27/64
APPROVED G. W. Haddock	DATE 3/27/64

Trajectory and related schedules



Trajectory and related schedules (Cont'd)

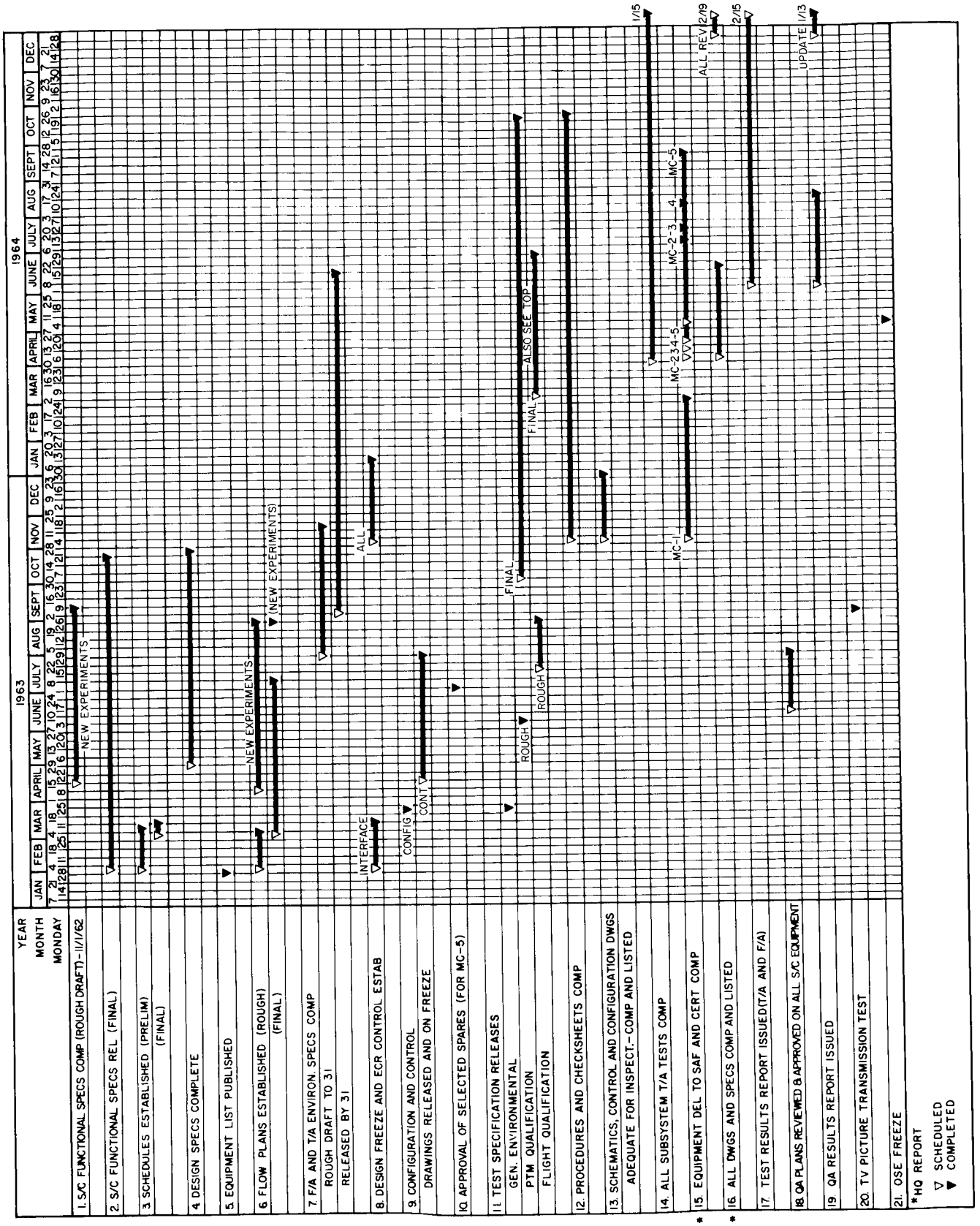


First Issue 2/18/63 Revised: 9/26/63 Revised 6/29/64 Prepared by: N. R. Haynes, J. S. Reuyl

Revised: 4/5/63 Revised: 1/8/64 Approved by: T. W. Hamilton

Revised: 7/16/63 Revised: 3/31/64

Spacecraft system schedule



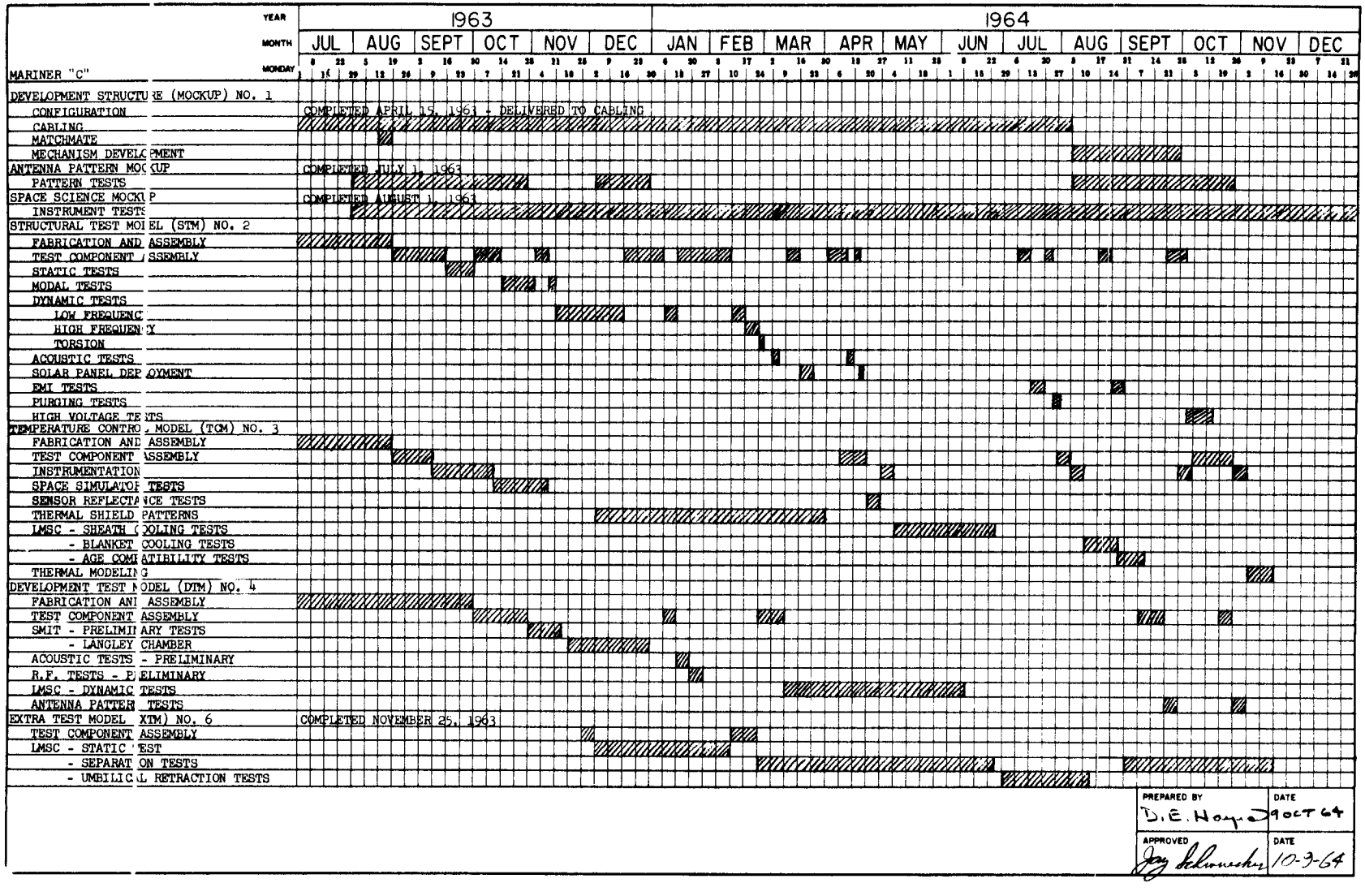
Mariner C Procurement Schedule

Division Number	Contractor and Title	Contract Number	Contract Delivery Date: First Flight	Second Flight	Third Flight
31	Planning Research Corp. Reliability Study	950445	Closed Out		
32	Alpha-Tronics Corp. Voltage to Pulse Width Converter	950553	Closed Out		
32	Computer Control Data Automation System	950531	2-25-64	3-25-64	4-25-64
32	Electro-Optical Systems ION Chamber	950658	12-6-63	1-3-64	2-28-64
32	Computer Control Voltage to Pulse Width Conversion Module	950570	Closed Out		
32	LABKO Ultraviolet Photometer DC Preamplifier	950688	12-10-63	1-10-64	2-10-64
32	Mass. Institute Tech. Plasma Probes	950614	12-20-63	1-17-64	2-7-64
32	Optics Technology Fiber Optic System for Planetary Scan System	950586	No longer considered Flight Hardware		
32	Santa Barbara Research Exit Optics Assem. and Cooling System	950548	Closed Out		
32	Univac Data Buffer Memory System	950556	1-16-64	1-27-64	2-4-64
32	Battele Memorial Inst. Study of the DAS	950706	Closed Out		
32	Texas Instruments Helium Magnetometer	950355	12-1-63	12-20-63	1/20/64
32	University of Chicago Cosmic Ray Telescopes	950615	12-20-63	1-17-64	2-7-64
32	University of Iowa Trapped Radiation Detector	950613	12-20-63	1-17-64	2-7-64
33	Motorola, Inc., Command Flight Sub-System	950481		1-15-64	2-1-64
33	Raymond Engineering Flight Magnetic Tape Recorder	950105	2-3-64	2-9-64	2-24-64
33	Motorola, Inc. Transponders	950538	3-6-64	3-27-64	4-17-64
33	Texas Instruments, Inc. Flight Data Encoders and Ground Support Equip.	950463	2-24-64	3-10-64	3-24-64
33	Texas Instruments, Inc. Mariner C Flight Tape Recorder Electric	950592	2-3-64	2-24-64	2-24-64

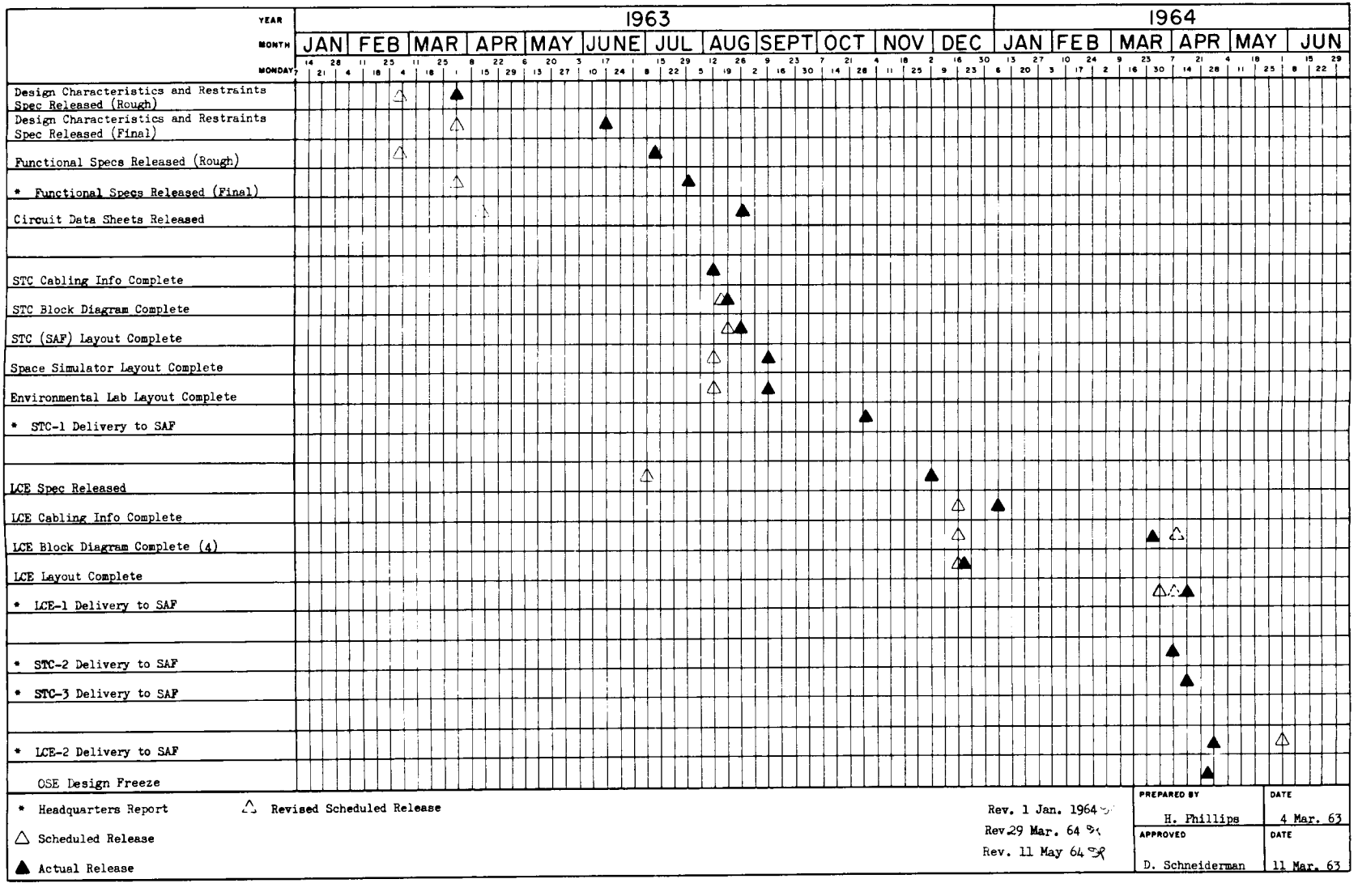
Mariner C Procurement Schedule (Cont'd)

Division Number	Contractor and Title	Contract Number		Contract Delivery Date: First Flight	Second Flight	Third Flight
33	Motorola - Circuit Design Review of M/C Flight Command Subsystem	950694		No Flight Schedule		
33	Texas Instruments, Inc. Incorporation of Automatic PN Acquisition into Mariner R Data Demodulator	950595		No Flight Schedule		
34	CBS Laboratories Image Dissectors	950054		No Flight Schedule		
34	Barnes Engineering Canopus Star Tracker	950238		1-15-64	2-1-64	2-15-64
34	Correlated Data Systems External Spacecraft Power Sources/Solar Panel Simulators	950509		Closed Out		
34	Kearfott Division Jet Vane Actuators	950223		Closed Out		
34	Nortronics - Attitude Control and Midcourse Guidance	950497		No Flight Schedule		
34	Space Tech. Labs Central Computer and Sequencer Subsystem	950443		4-1-64	4-5-64	4-20-64
34	Space Tech. Labs Power Subsystem	950572		4-10-64	4-17-64	5-1-64
34	Texas Instruments Gyro Control Electronic Modules	950537		3-2-64	3-13-64	4-13-64
35	Space Tech. Laboratory Temperature Control Louvers	950580	31 pieces received			
35	Sperry Rand Corp. Solar Panel Transport Trailers	950629		Delivery Complete	Delivery Complete	Delivery Complete
35	Ryan Aeronautical Solar Panel Development	950515		Not applicable to Flight Schedule directly		
34	EOS Solar Panel Assemblies	950797		4 panels 4-20-64	4 panels 5-20-64	2 panels 5-30-64
34	Lockheed Solar Cell Modules	950796	252 pieces Delivered 1-2-64	500 per week thereafter 11,000 total		

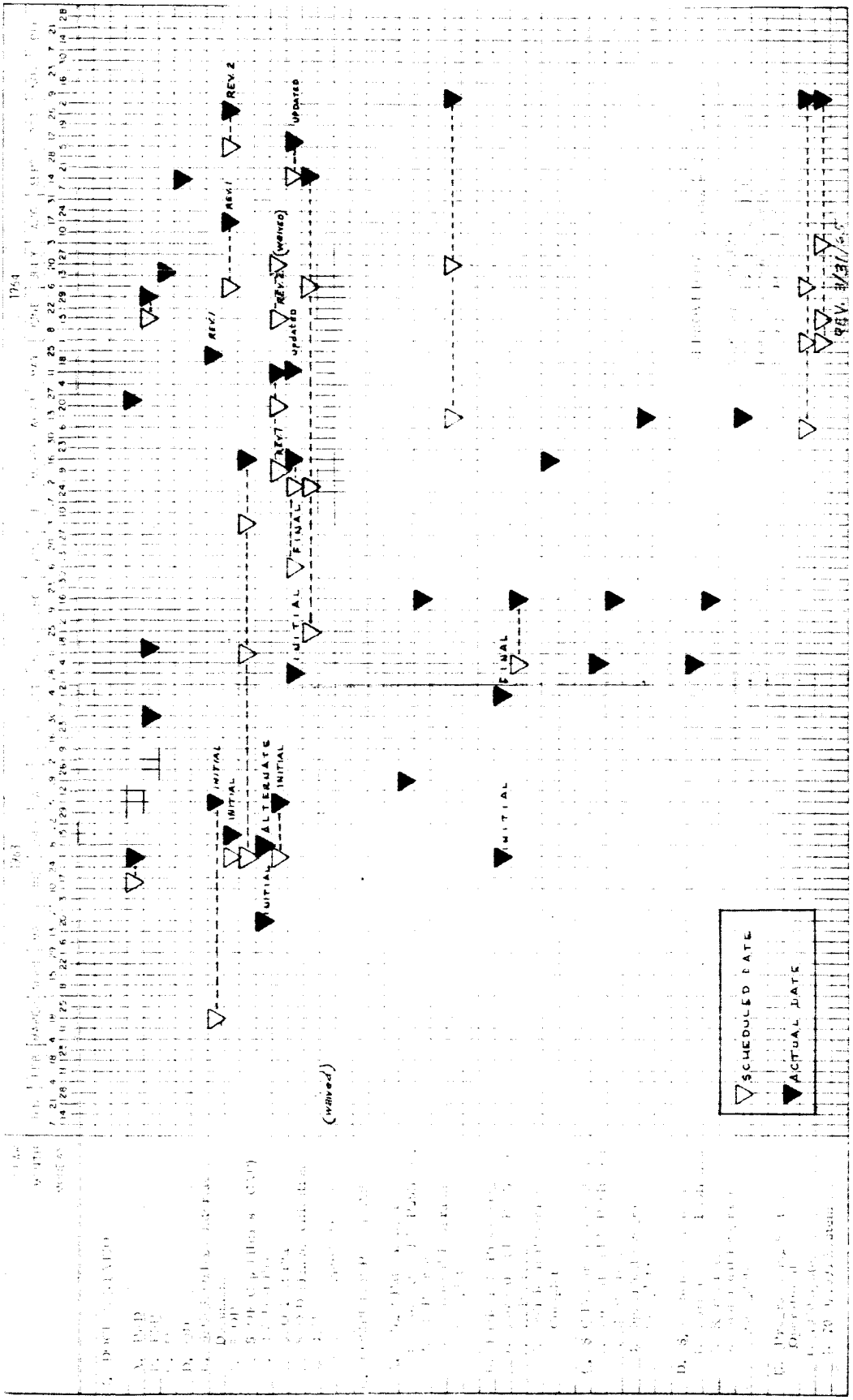
Development spaceframe schedule



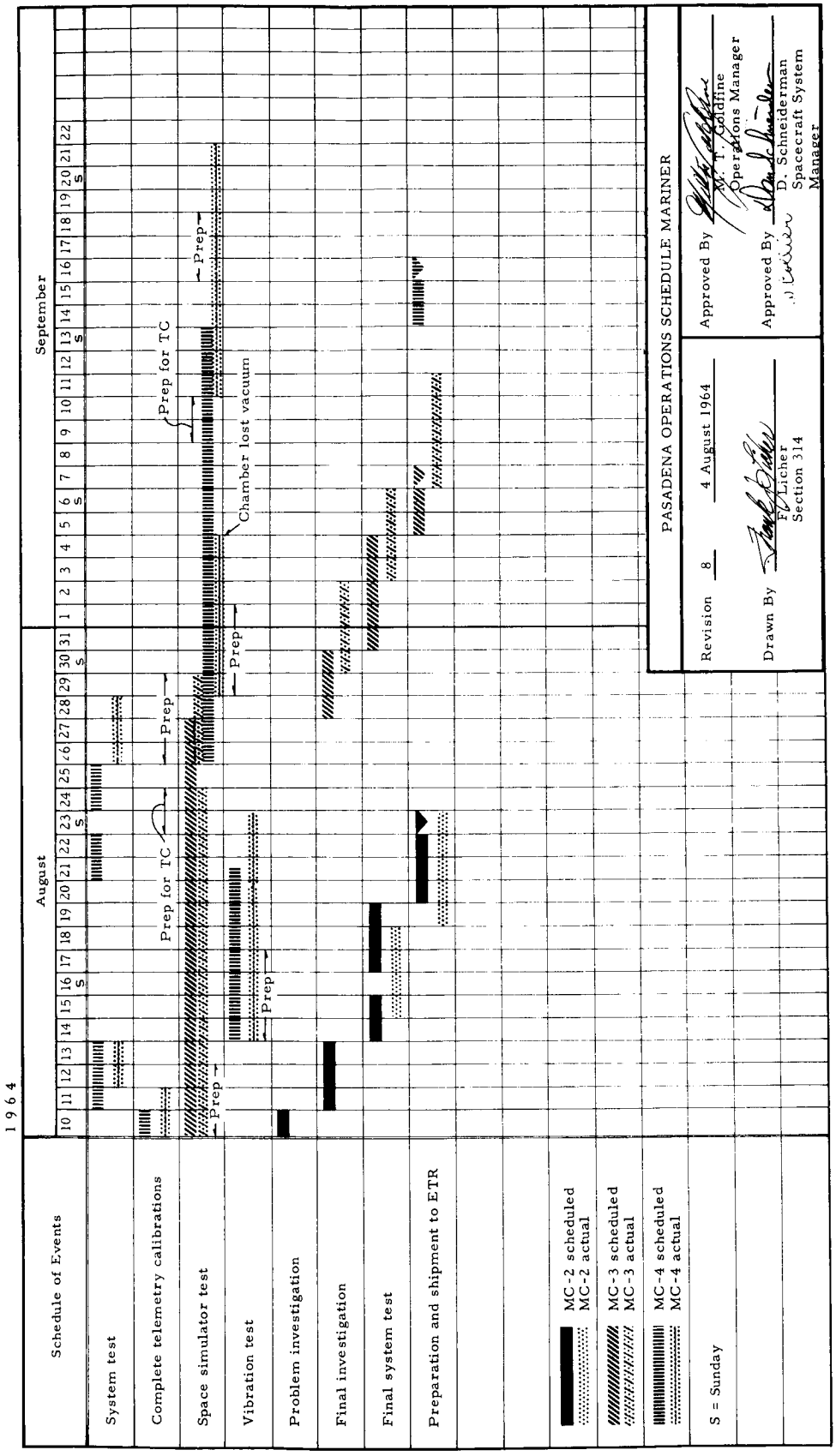
Operational support equipment schedule



Documentation schedule

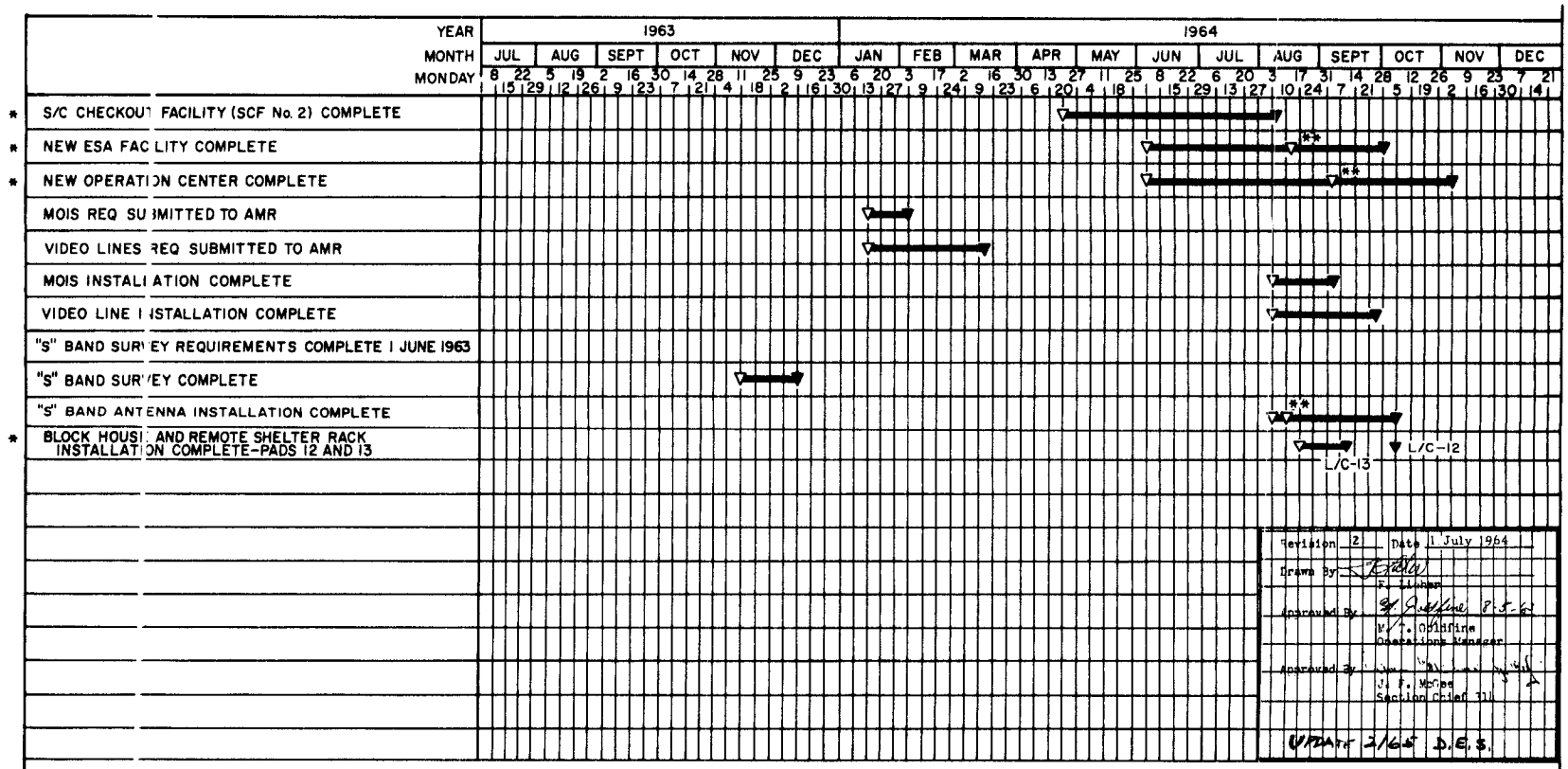


Pasadena operations schedule



Note: PTM in standby to support flight spacecraft.

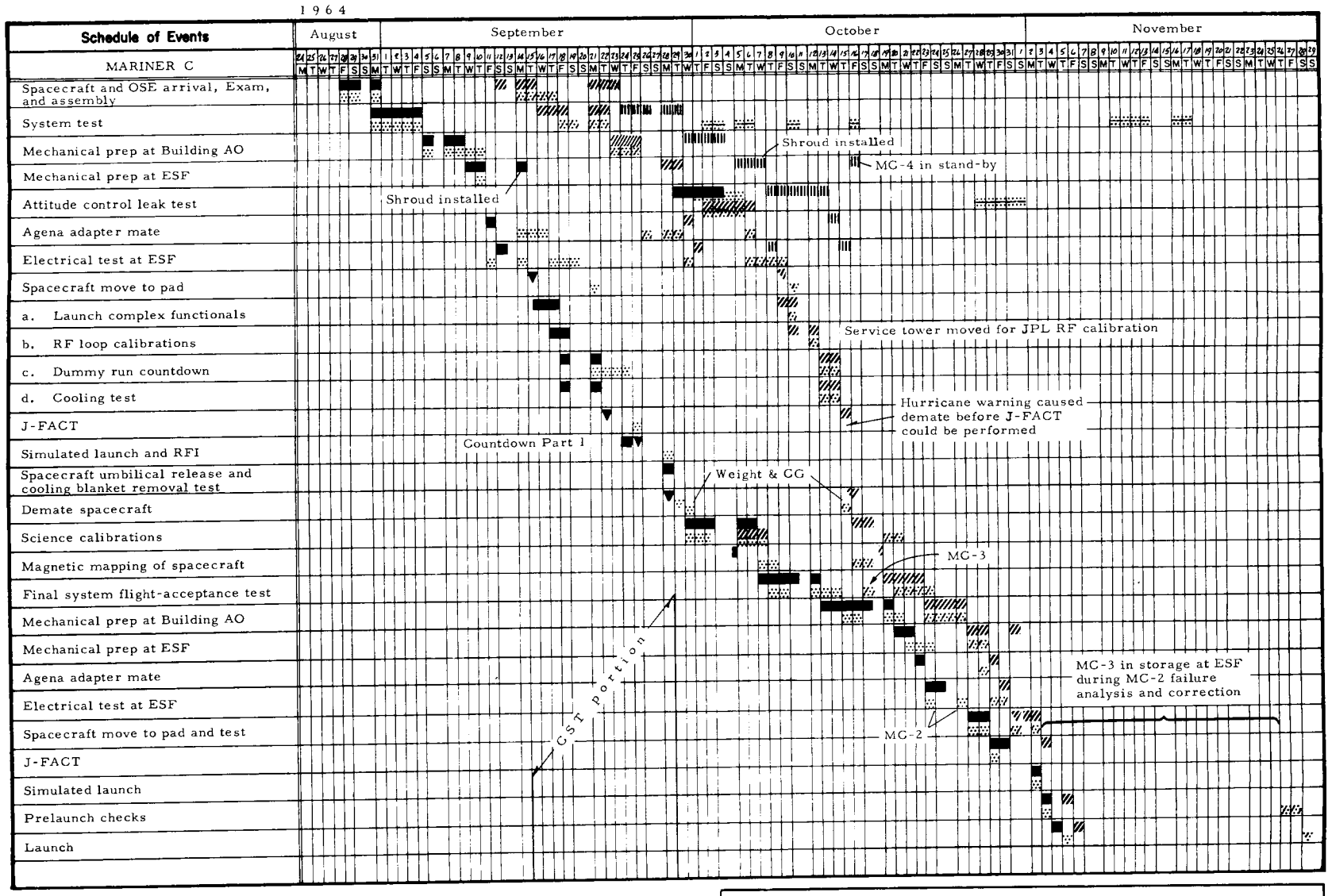
Eastern Test Range facilities schedule



REFERENCE
MOIS-ETR INTER-COMM TELEPHONE SYSTEM
ESA-EXPLOSIVE SAFE AERA

* NASA HQS REPORT
** ESTIMATE AS OF 1 JULY 1964

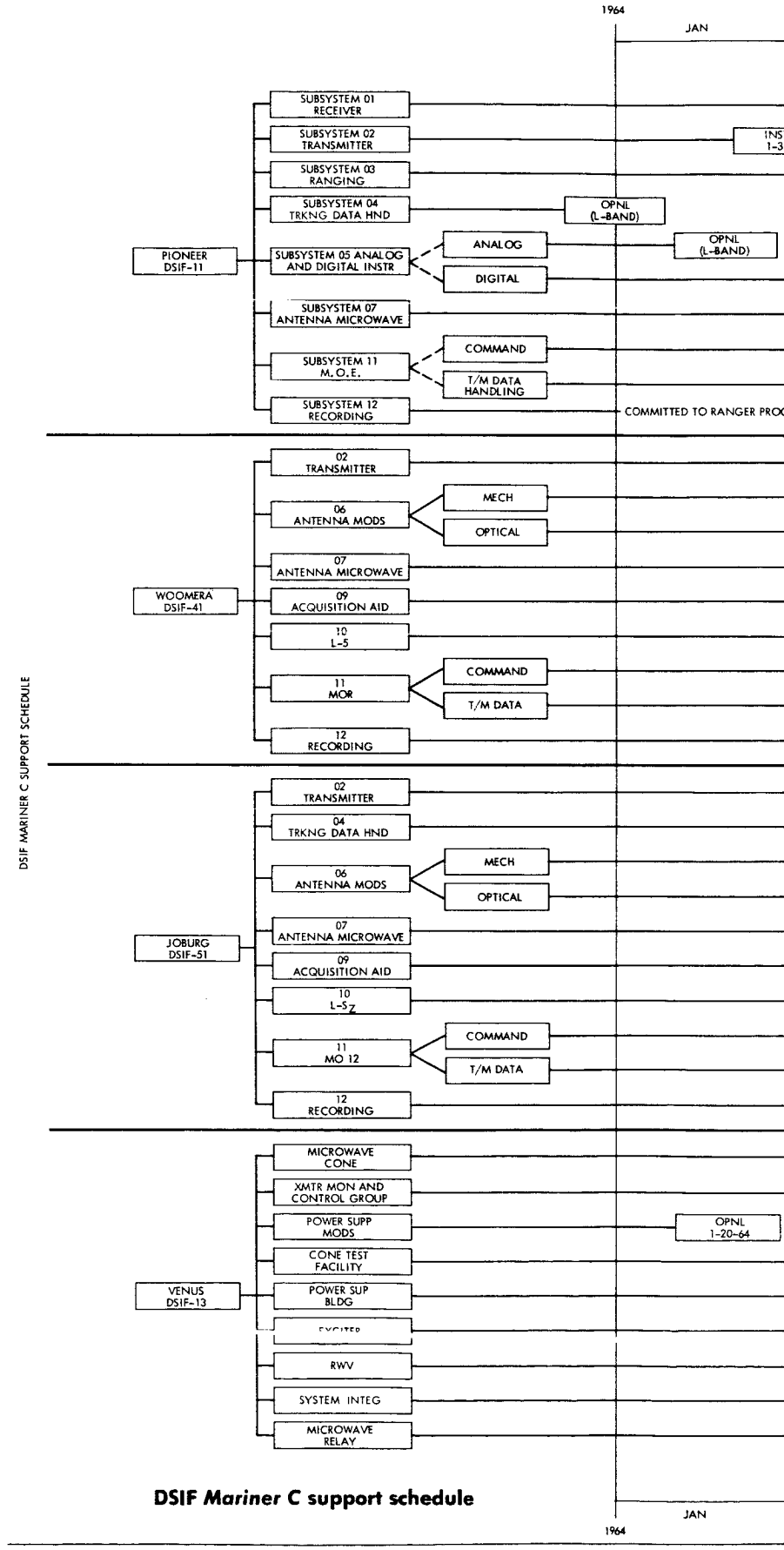
Mariner C schedule of events



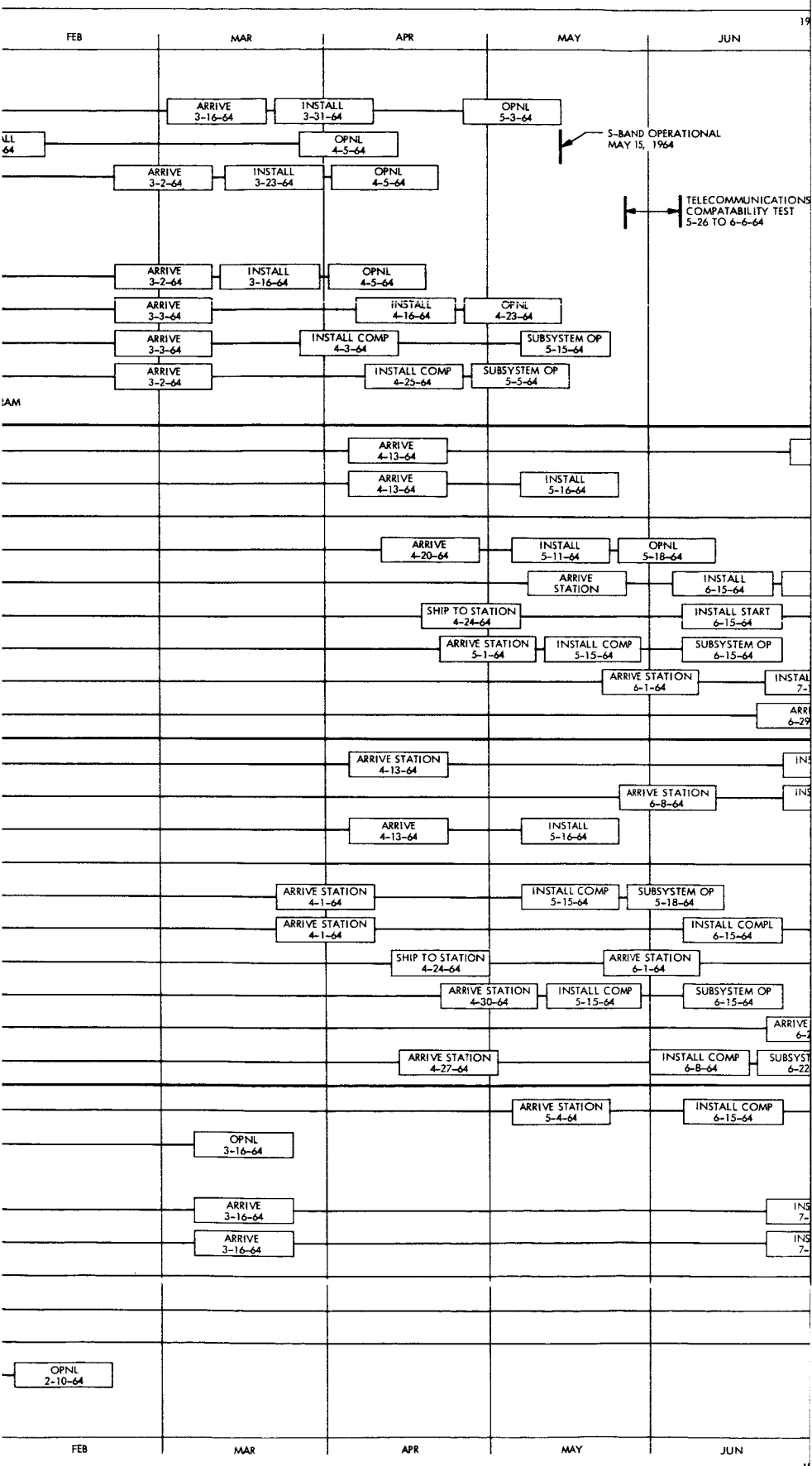
Code:

MC-2 ▬ MC-3 ▨ MC-4 ▥ } Scheduled } Actual

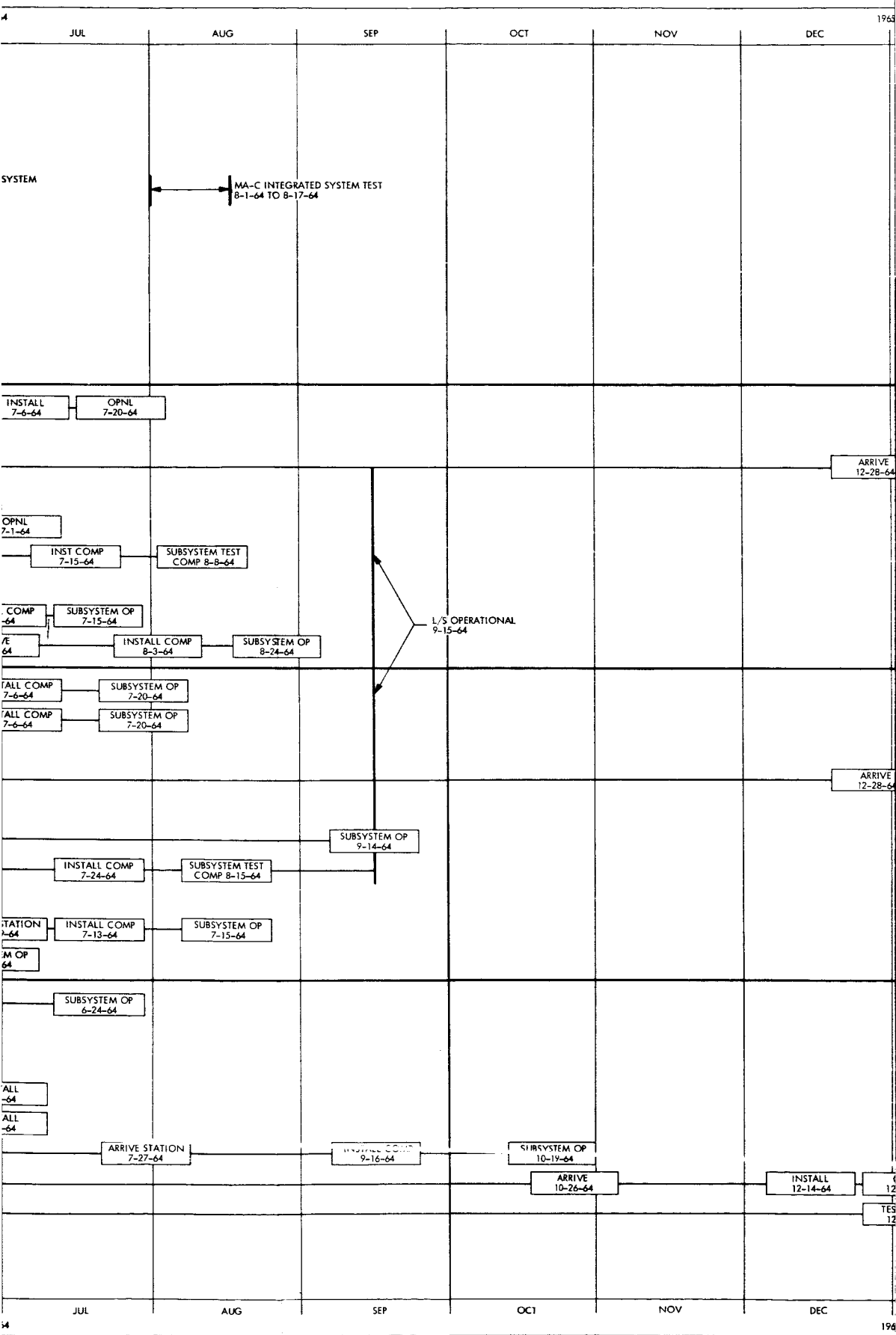
ETR OPERATIONS SCHEDULE MARINER C	
Revision 7 26 August 1964	Approved by M. T. Goldfine, Operations Manager
Prepared by F. Licher, Section 314	Approved by D. Schneiderman, Spacecraft System Manager



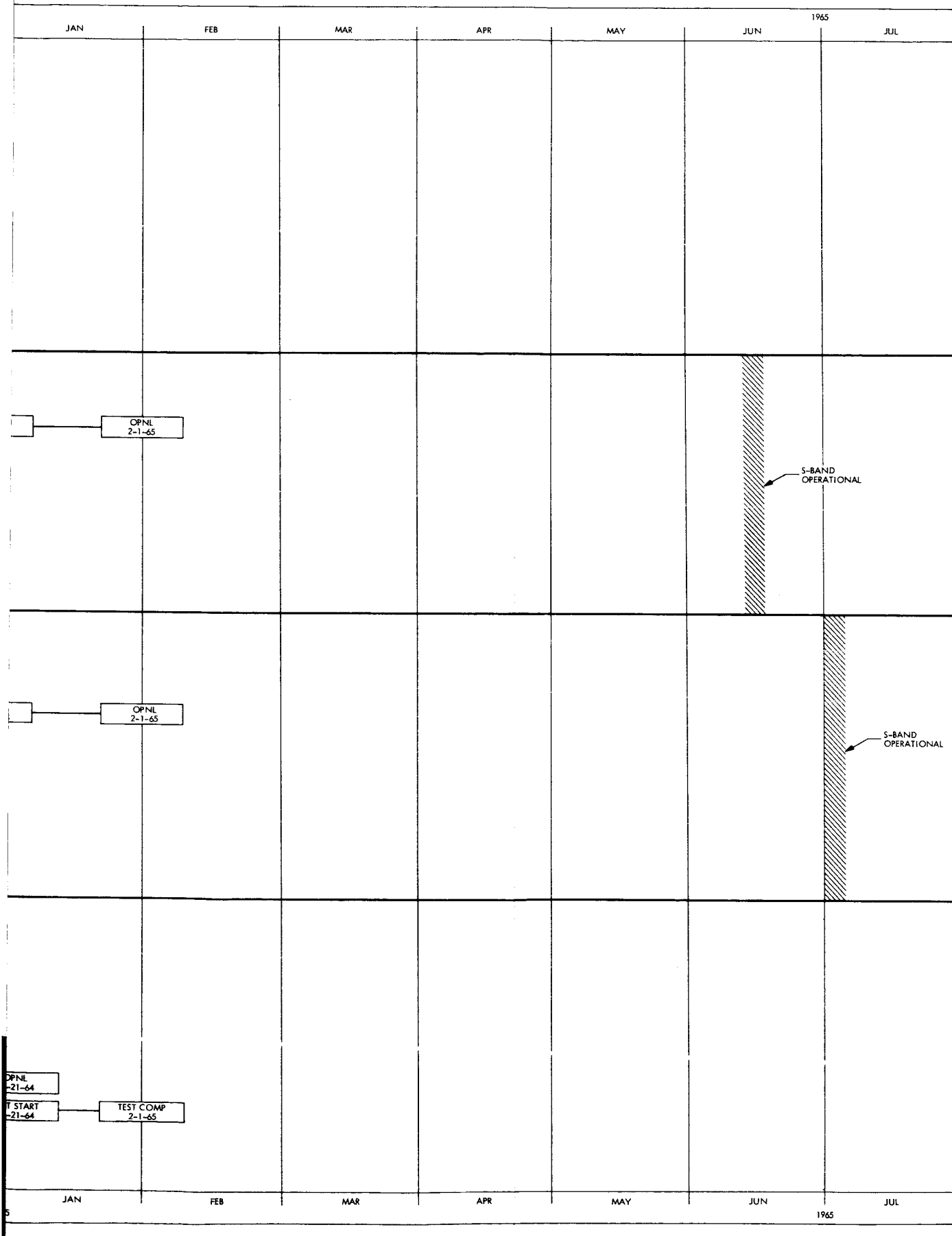
DSIF *Mariner* C support schedule

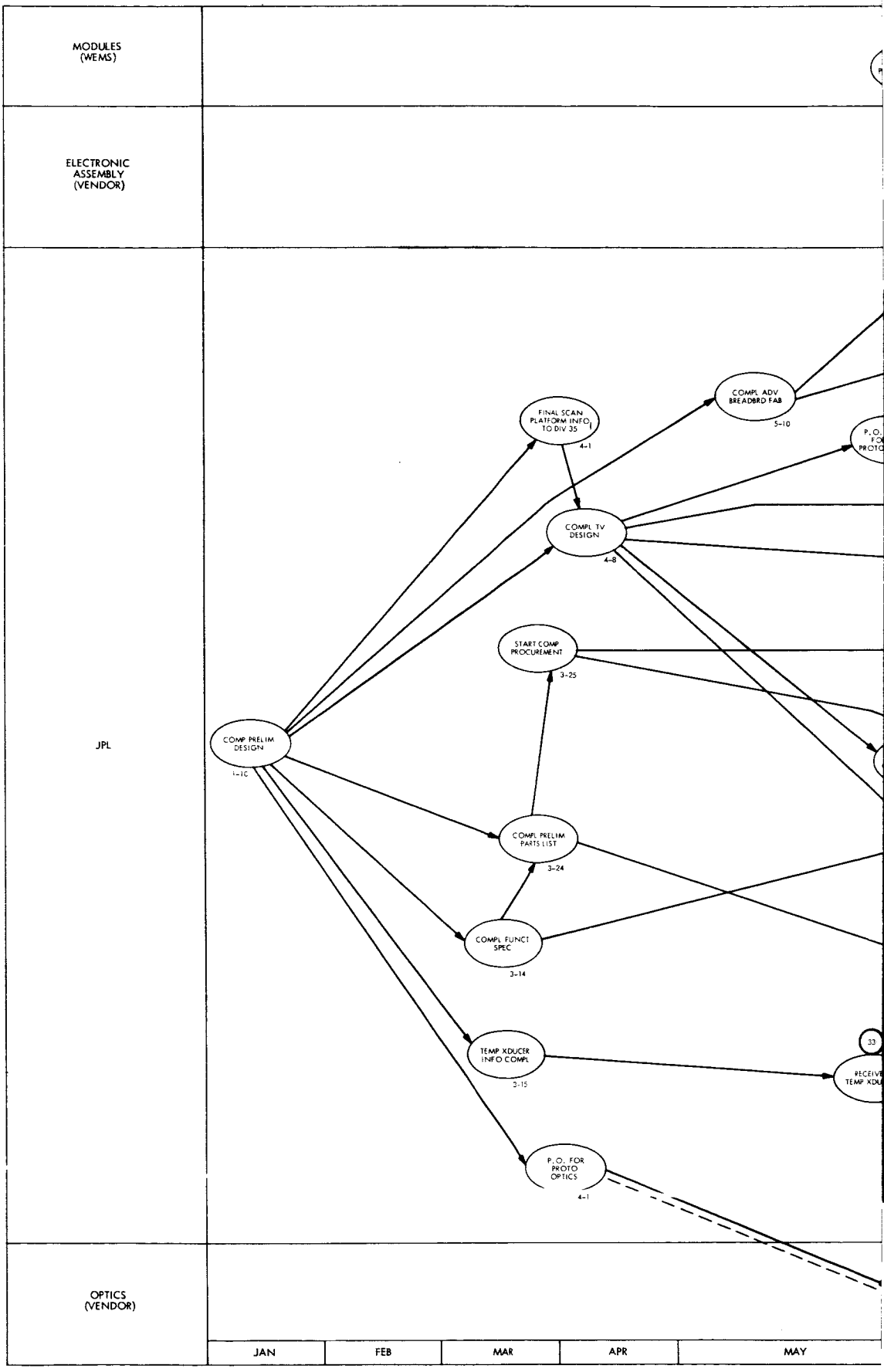

FEB
MAR
APR
MAY
JUN
ARRIVE 3-16-64
INSTALL 3-31-64
OPNL 5-3-64
S-BAND OPERATIONAL MAY 15, 1964
OPNL 4-5-64
ARRIVE 3-2-64
INSTALL 3-23-64
OPNL 4-5-64
TELECOMMUNICATIONS COMPATABILITY TEST 5-26 TO 6-6-64
ARRIVE 3-2-64
INSTALL 3-16-64
OPNL 4-5-64
ARRIVE 3-3-64
INSTALL 4-16-64
OPNL 4-23-64
ARRIVE 3-3-64
INSTALL COMP 4-3-64
SUBSYSTEM OP 5-15-64
ARRIVE 3-2-64
INSTALL COMP 4-25-64
SUBSYSTEM OP 5-5-64
ARRIVE 4-13-64
ARRIVE 4-13-64
INSTALL 5-16-64
ARRIVE 4-20-64
INSTALL 5-11-64
OPNL 5-18-64
ARRIVE STATION
INSTALL 6-15-64
SHIP TO STATION 4-24-64
INSTALL START 6-15-64
ARRIVE STATION 5-1-64
INSTALL COMP 5-15-64
SUBSYSTEM OP 6-15-64
ARRIVE STATION 6-1-64
ARRIVE STATION 4-13-64
ARRIVE STATION 6-8-64
ARRIVE 4-13-64
INSTALL 5-16-64
ARRIVE STATION 4-1-64
INSTALL COMP 5-15-64
SUBSYSTEM OP 5-18-64
ARRIVE STATION 4-1-64
INSTALL COMPL 6-15-64
SHIP TO STATION 4-24-64
ARRIVE STATION 6-1-64
ARRIVE STATION 4-30-64
INSTALL COMP 5-15-64
SUBSYSTEM OP 6-15-64
ARRIVE STATION 4-27-64
INSTALL COMP 6-8-64
ARRIVE STATION 5-4-64
INSTALL COMP 6-15-64
OPNL 3-16-64
ARRIVE 3-16-64
ARRIVE 3-16-64
OPNL 2-10-64
FEB
MAR
APR
MAY
JUN

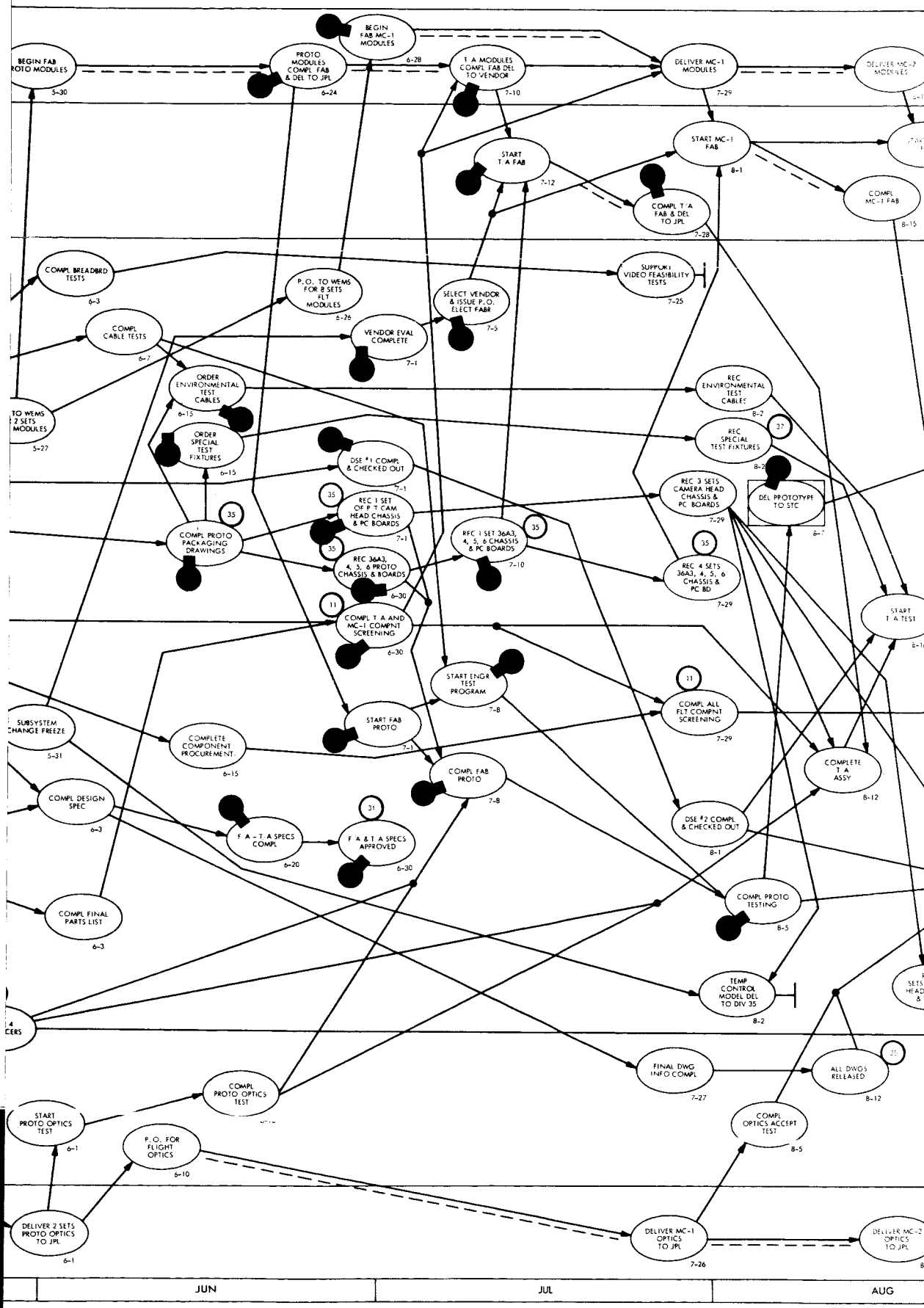
455-2


1965
JUL
AUG
SEP
OCT
NOV
DEC
SYSTEM
MA-C INTEGRATED SYSTEM TEST
8-1-64 TO 8-17-64
INSTALL
7-6-64
OPNL
7-20-64
ARRIVE
12-28-64
OPNL
7-1-64
INST COMP
7-15-64
SUBSYSTEM TEST
COMP 8-8-64
SUBSYSTEM OP
7-15-64
INSTALL COMP
8-3-64
SUBSYSTEM OP
8-24-64
L/S OPERATIONAL
9-15-64
SUBSYSTEM OP
7-20-64
SUBSYSTEM OP
7-20-64
ARRIVE
12-28-64
SUBSYSTEM OP
9-14-64
INSTALL COMP
7-24-64
SUBSYSTEM TEST
COMP 8-15-64
INSTALL COMP
7-13-64
SUBSYSTEM OP
7-15-64
SUBSYSTEM OP
6-24-64
ARRIVE STATION
7-27-64
9-16-64
SUBSYSTEM OP
10-19-64
ARRIVE
10-26-64
INSTALL
12-14-64
JUL
AUG
SEP
OCT
NOV
DEC
1964
1965

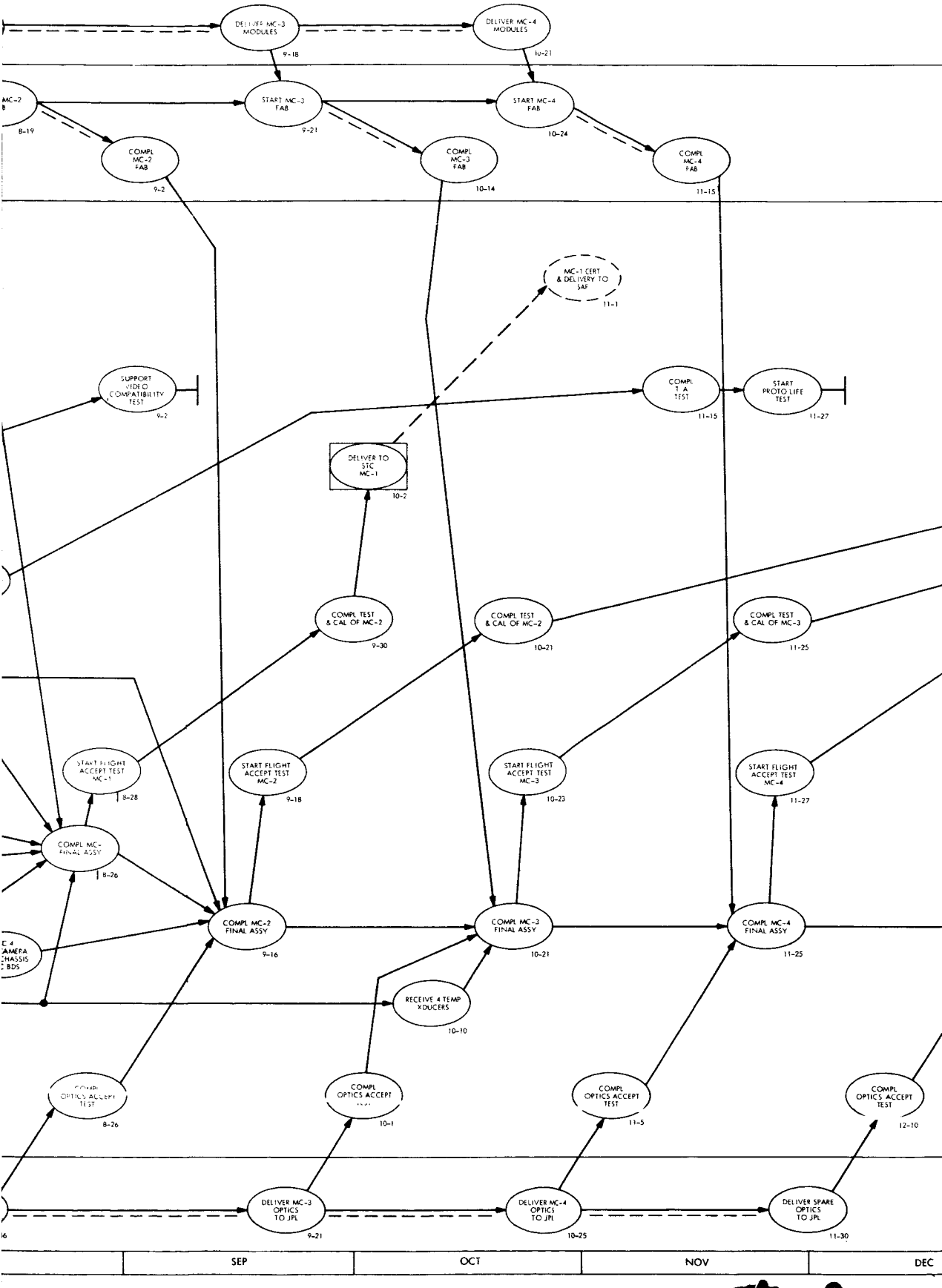
450-3


1965
JAN
FEB
MAR
APR
MAY
JUN
JUL
OPNL
2-1-65
S-BAND
OPERATIONAL
OPNL
2-1-65
S-BAND
OPERATIONAL
OPNL
-21-64
T START
-21-64
TEST COMP
2-1-65
JAN
FEB
MAR
APR
MAY
JUN
JUL
1965


MODULES (WEMS)
ELECTRONIC ASSEMBLY (VENDOR)
JPL
OPTICS (VENDOR)
COMP PRELIM DESIGN
1-10
FINAL SCAN PLATFORM INFO TO DIV 35
4-1
COMPL ADV BREADBRD FAB
5-10
COMPL TV DESIGN
4-8
START COMP PROCUREMENT
3-25
COMPL PRELIM PARTS LIST
3-24
COMPL FUNCT SPEC
3-14
TEMP XDUCER INFO COMPL
2-15
P.O. FOR PROTO OPTICS
4-1
JAN
FEB
MAR
APR
MAY

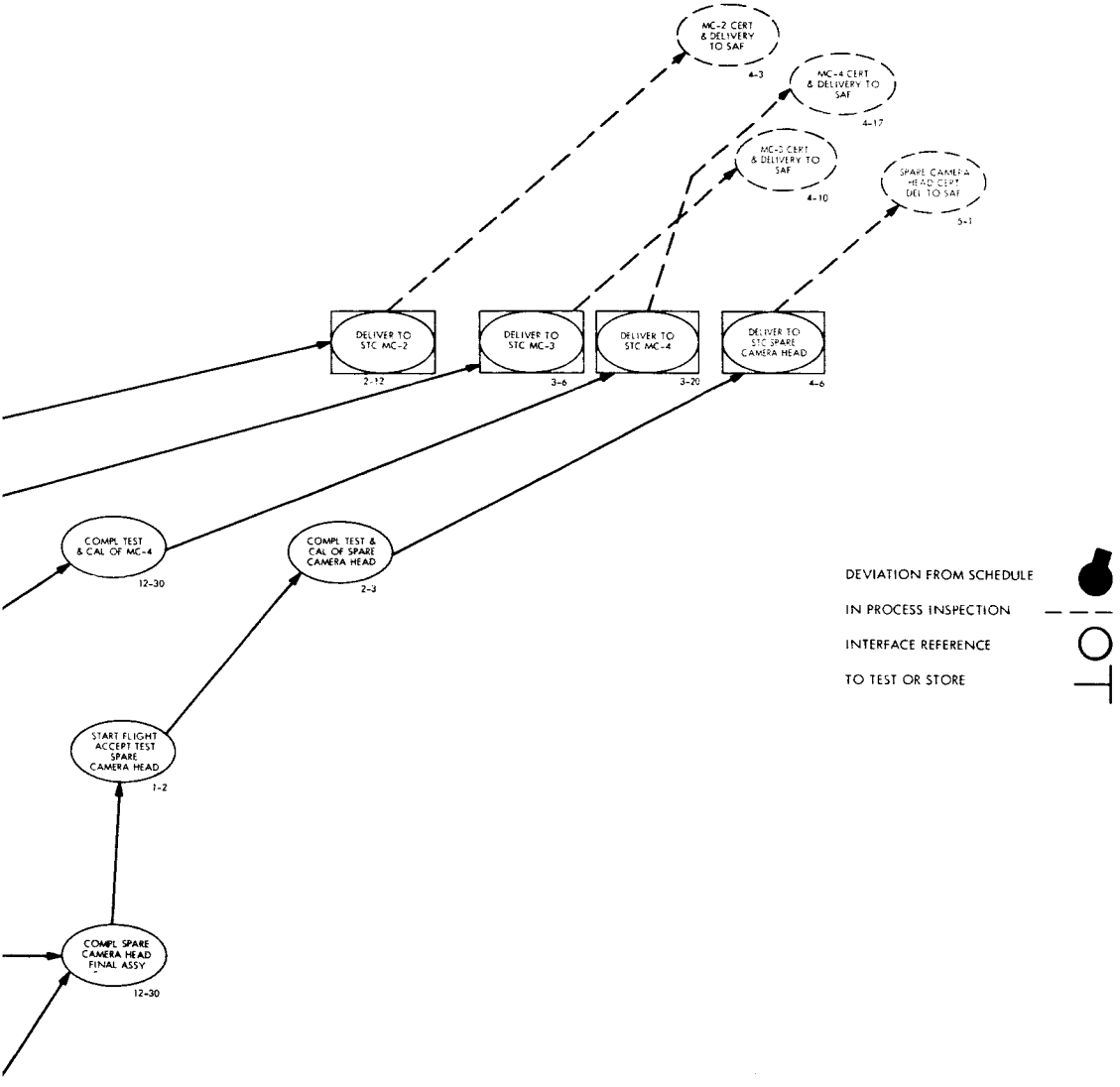

BEGIN FAB PROTO MODULES
5-30
PROTO MODULES COMPL FAB & DEL TO JPL
6-24
BEGIN FAB MC-1 MODULES
6-28
T A MODULES COMPL FAB DEL TO VENDOR
7-10
DELIVER MC-1 MODULES
7-29
START MC-1 FAB
8-1
START T A FAB
7-12
COMPL T A FAB & DEL TO JPL
7-28
COMPL MC-1 FAB
8-15
COMPL BREADBRD TESTS
6-3
SUPPORT VIDEO FEASIBILITY TESTS
7-25
P.O. TO WEMS FOR 8 SETS FLT MODULES
2-26
SELECT VENDOR & ISSUE P.O. ELECT FABR
7-5
COMPL CABLE TESTS
6-7
VENDOR EVAL COMPLETE
7-1
ORDER ENVIRONMENTAL TEST CABLES
6-15
REC ENVIRONMENTAL TEST CABLES
8-2
TO WEMS 2 SETS MODULES
5-27
ORDER SPECIAL TEST FIXTURES
6-15
REC SPECIAL TEST FIXTURES
8-2
37
DSE #1 COMPL & CHECKED OUT
7-1
REC 3 SETS CAMERA HEAD CHASSIS & PC BOARDS
7-29
DEL PROTOTYPE TO STC
8-7
35
REC 1 SET OF P T CAM HEAD CHASSIS & PC BOARDS
7-1
COMPL PROTO PACKAGING DRAWINGS
REC 1 SET 36A3, 4, 5, 6 CHASSIS & PC BOARDS
7-10
REC 36A3, 4, 5, 6 PROTO CHASSIS & BOARDS
6-30
REC 4 SETS 36A3, 4, 5, 6 CHASSIS & PC BD
7-29
11
COMPL T A AND MC-1 COMPNT SCREENING
6-30
START T A TEST
START ENGR TEST PROGRAM
7-8
COMPL ALL FLT COMPNT SCREENING
7-29
SUBSYSTEM CHANGE FREEZE
5-31
START FAB PROTO
7-1
COMPLETE COMPONENT PROCUREMENT
6-15
COMPL FAB PROTO
7-8
COMPLETE T A ASSY
8-12
COMPL DESIGN SPEC
6-3
31
F A - T A SPECS COMPL
6-20
F A & T A SPECS APPROVED
6-30
DSE #2 COMPL & CHECKED OUT
8-1
COMPL PROTO TESTING
8-5
COMPL FINAL PARTS LIST
6-3
TEMP CONTROL MODEL DEL TO DIV 35
8-2
FINAL DWG INFO COMPL
7-27
ALL DWGS RELEASED
8-12
COMPL PROTO OPTICS TEST
START PROTO OPTICS TEST
6-1
P.O. FOR FLIGHT OPTICS
6-10
COMPL OPTICS ACCEPT TEST
8-5
DELIVER 2 SETS PROTO OPTICS TO JPL
6-1
DELIVER MC-1 OPTICS TO JPL
7-26
JUN
JUL
AUG

45B-2


DELIVER MC-3 MODULES
9-18
DELIVER MC-4 MODULES
10-21
START MC-3 FAB
9-21
START MC-4 FAB
10-24
8-19
COMPL MC-2 FAB
9-2
COMPL MC-3 FAB
10-14
COMPL MC-4 FAB
11-15
MC-1 CERT & DELIVERY TO SAF
11-1
SUPPORT VIDEO COMPATIBILITY TEST
9-2
COMPL T & A TEST
11-15
START PROTO LIFE TEST
11-27
DELIVER TO STC MC-1
10-2
COMPL TEST & CAL OF MC-2
9-30
COMPL TEST & CAL OF MC-2
10-21
COMPL TEST & CAL OF MC-3
11-25
START FLIGHT ACCEPT TEST MC-1
8-28
START FLIGHT ACCEPT TEST MC-2
9-18
START FLIGHT ACCEPT TEST MC-3
10-23
START FLIGHT ACCEPT TEST MC-4
11-27
COMPL MC-1 FINAL ASSY
8-26
COMPL MC-2 FINAL ASSY
9-16
COMPL MC-3 FINAL ASSY
10-21
COMPL MC-4 FINAL ASSY
11-25
RECEIVE 4 TEMP XDUCERS
10-10
OPTICS ACCEPT TEST
8-26
COMPL OPTICS ACCEPT
10-1
COMPL OPTICS ACCEPT TEST
11-5
COMPL OPTICS ACCEPT TEST
12-10
DELIVER MC-3 OPTICS TO JPL
9-21
DELIVER MC-4 OPTICS TO JPL
10-25
DELIVER SPARE OPTICS TO JPL
11-30
SEP
OCT
NOV
DEC

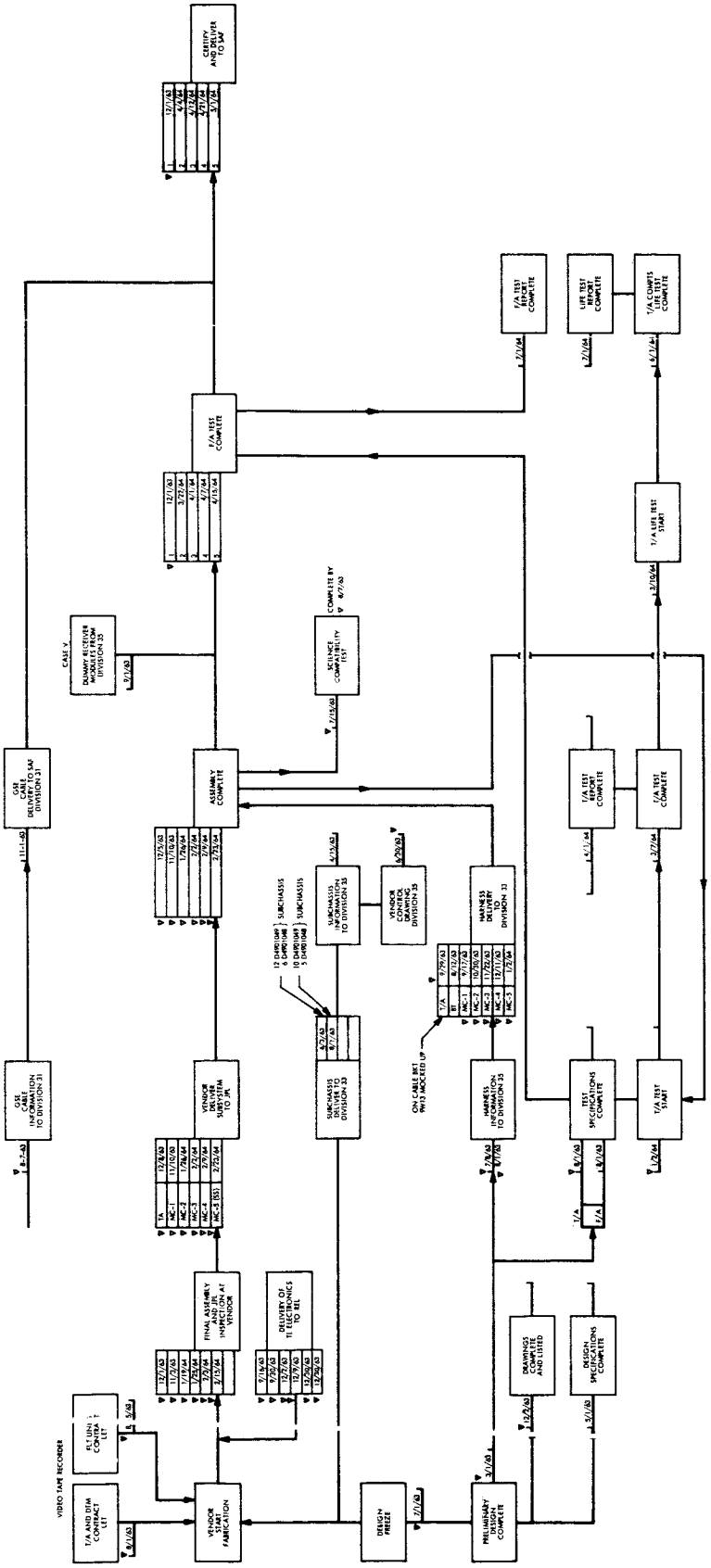
45B-3

II. FLOW CHARTS

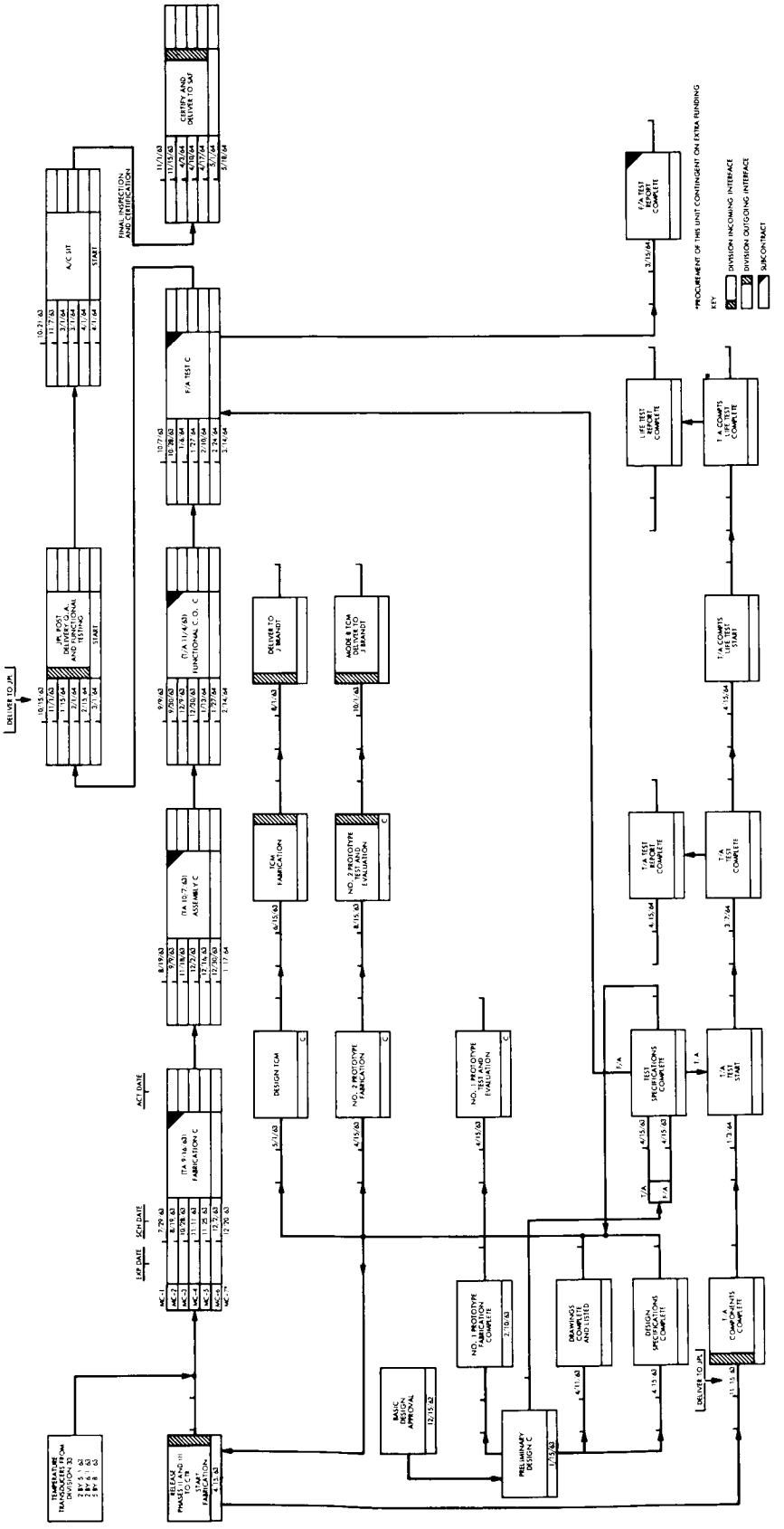


Television subsystem flow plan

1963	1964	JAN	FEB	MAR	APR	MAY	JUN	JUL



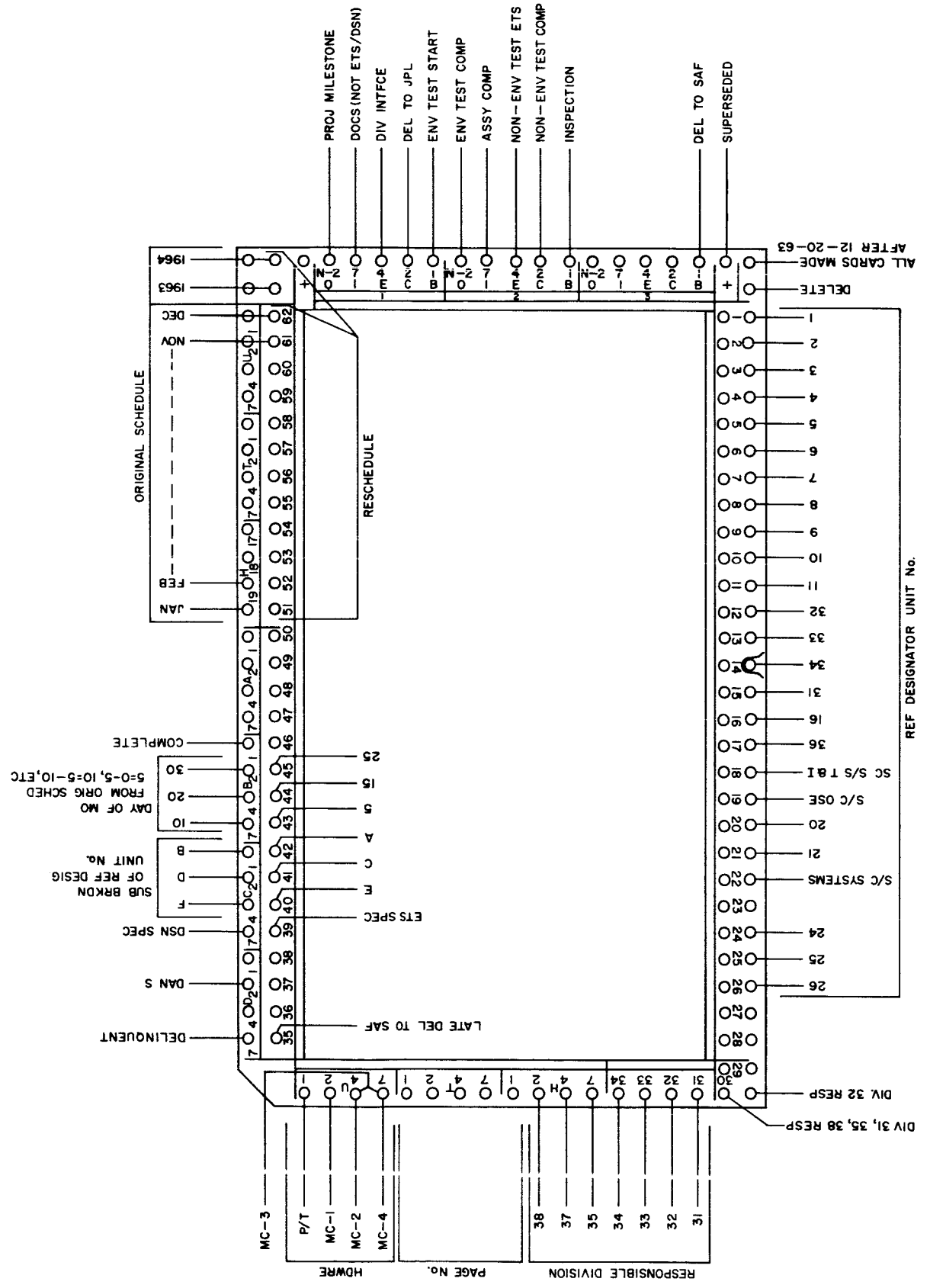
Video tape recorder flow plan

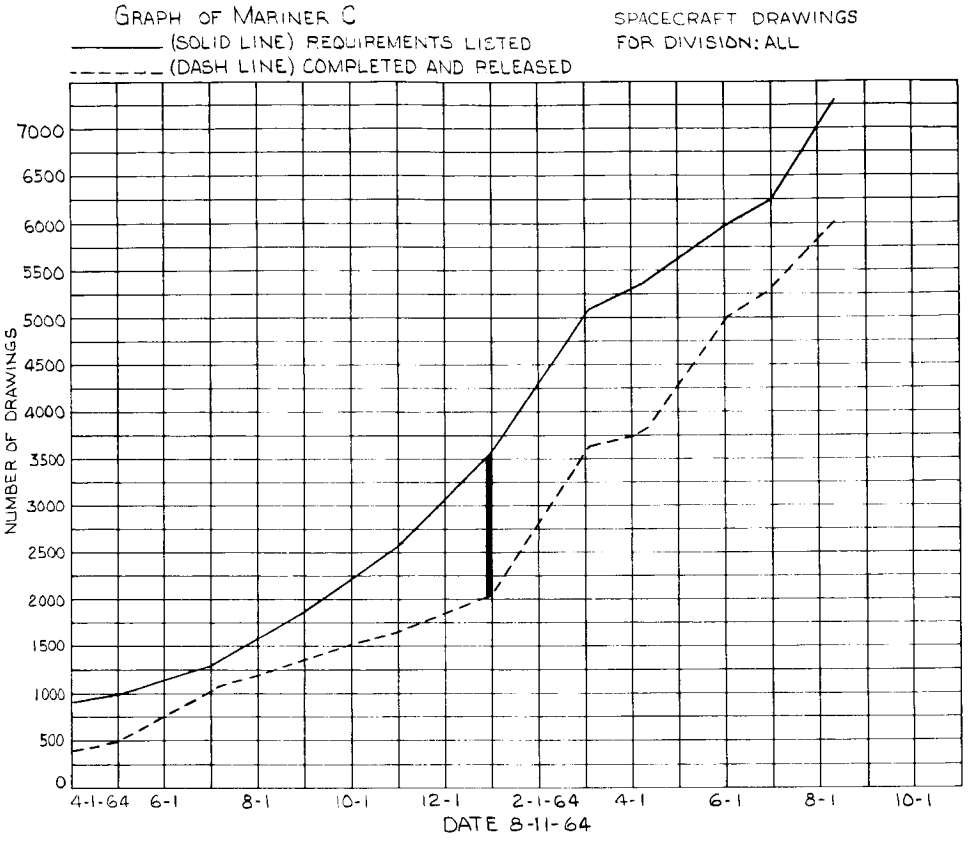


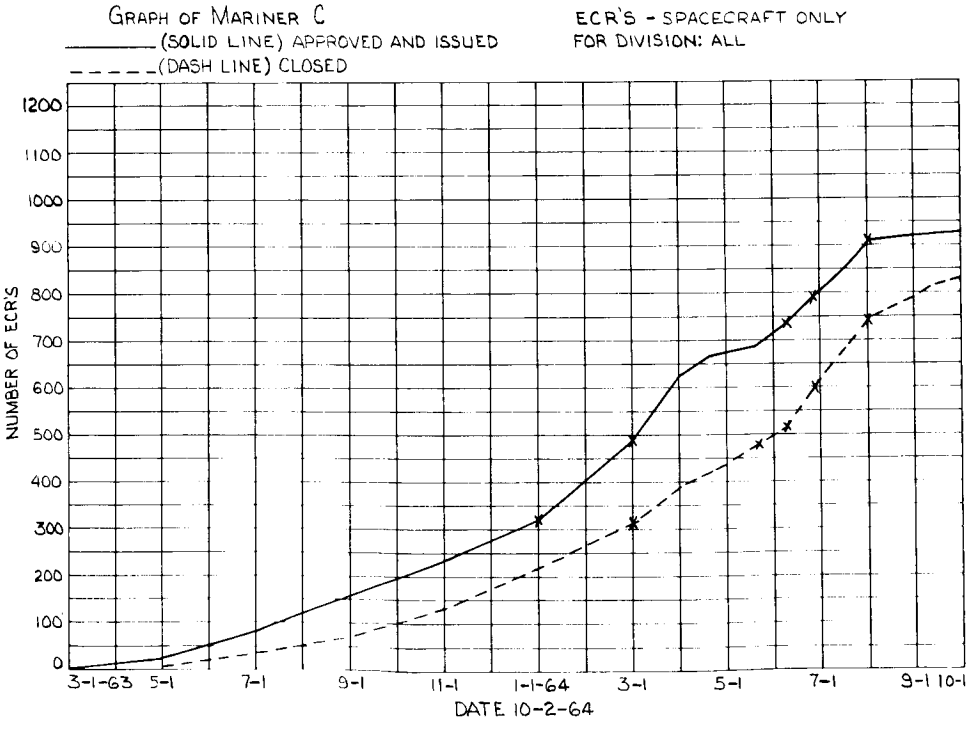
Canopus sensor flow plan

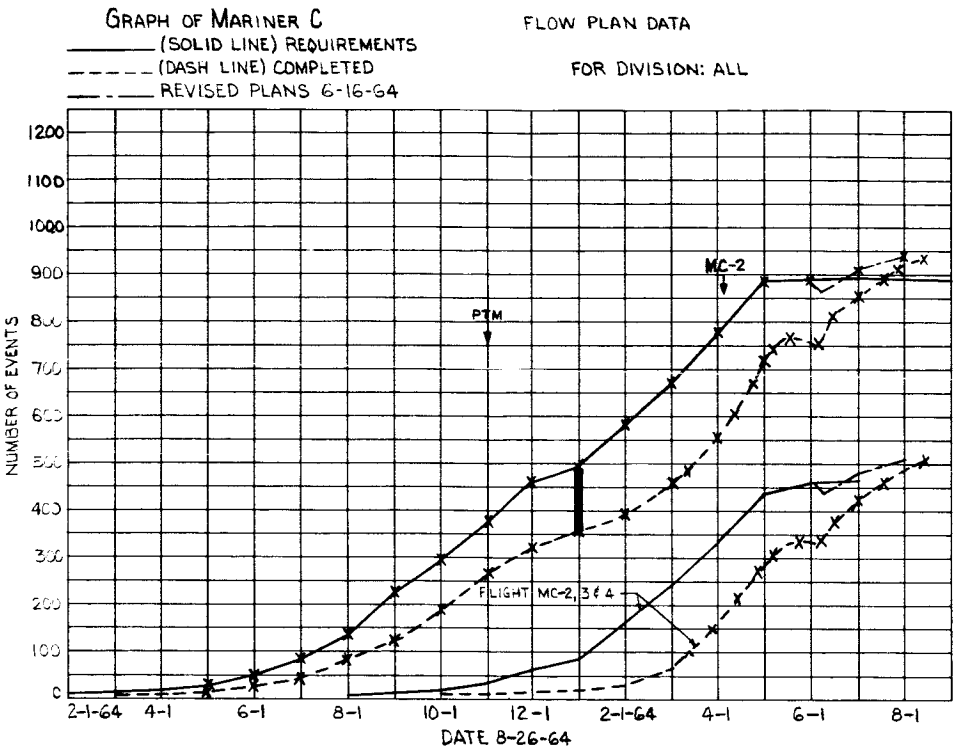
III. MANUAL SORT CARD AND TREND GRAPHS

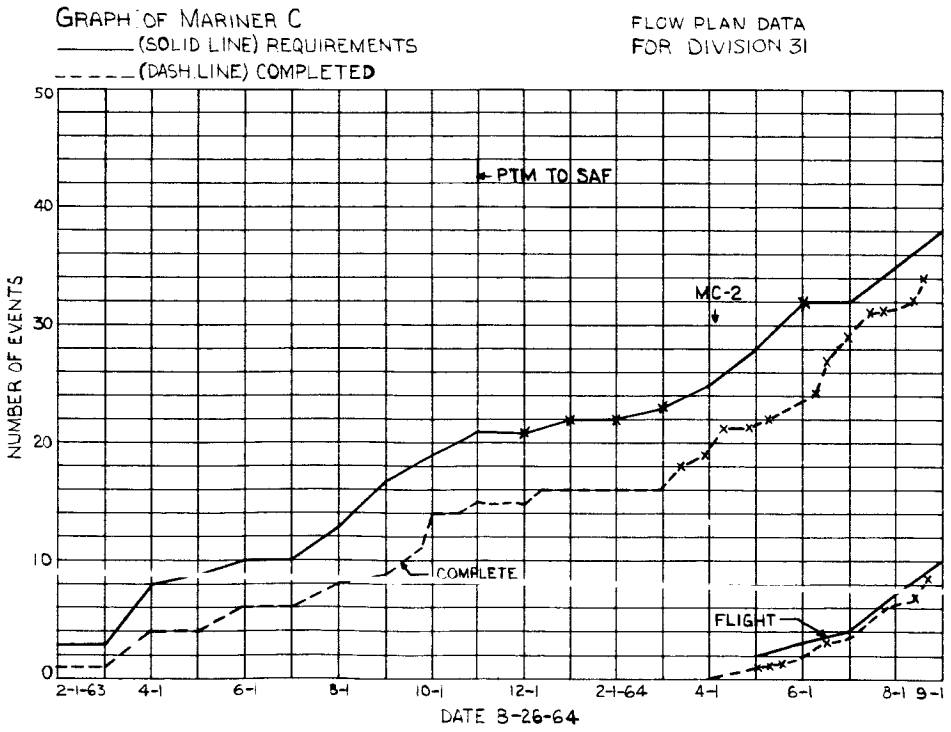
Manual sort card

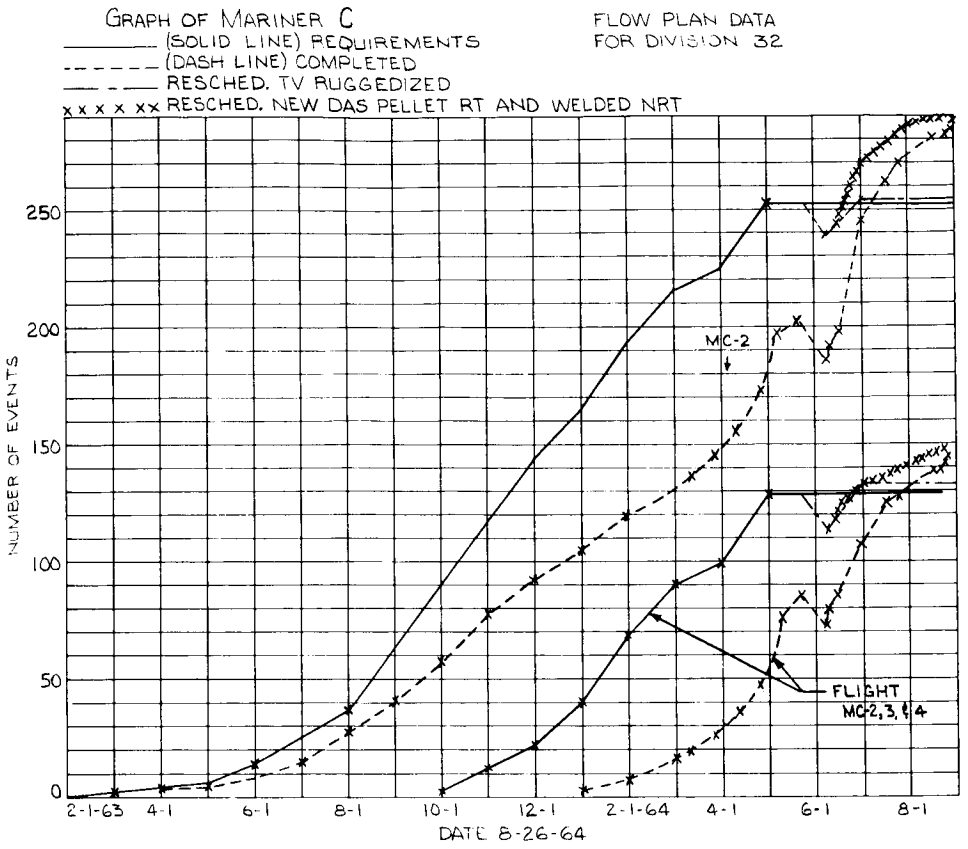


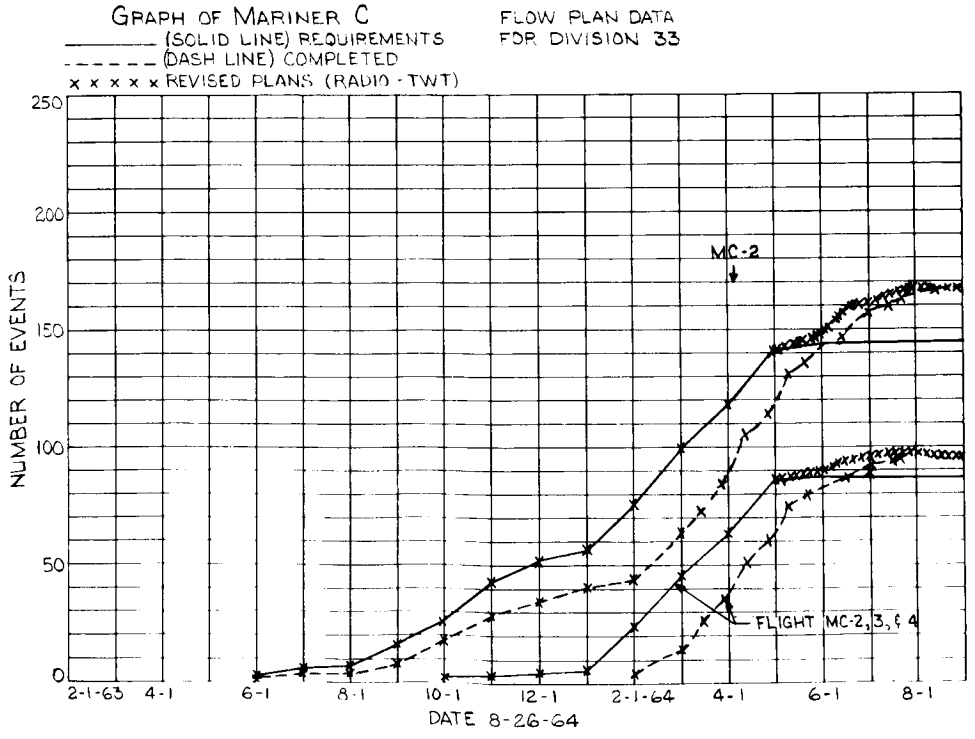

GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS LISTED
(DASH LINE) COMPLETED AND RELEASED
SPACECRAFT DRAWINGS
FOR DIVISION: ALL
NUMBER OF DRAWINGS
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
4-1-64
6-1
8-1
10-1
12-1
2-1-64
4-1
6-1
8-1
10-1
DATE 8-11-64

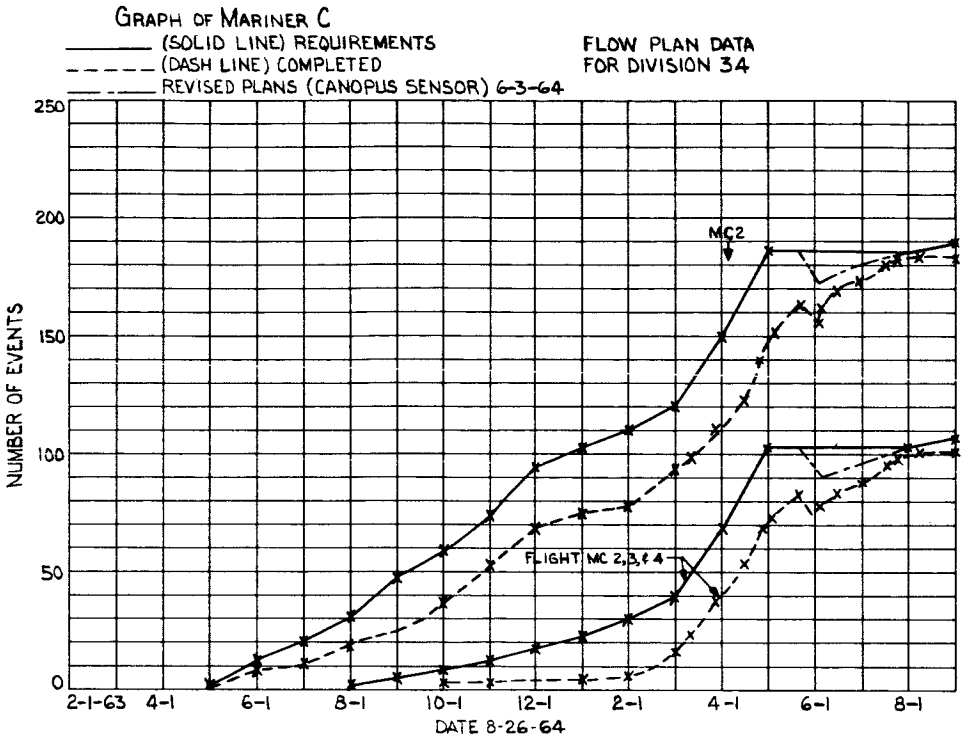

GRAPH OF MARINER C
(SOLID LINE) APPROVED AND ISSUED
(DASH LINE) CLOSED
ECR'S - SPACECRAFT ONLY
FOR DIVISION: ALL
NUMBER OF ECR'S
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
3-1-63
5-1
7-1
9-1
11-1
1-1-64
3-1
5-1
7-1
9-1
10-1
DATE 10-2-64

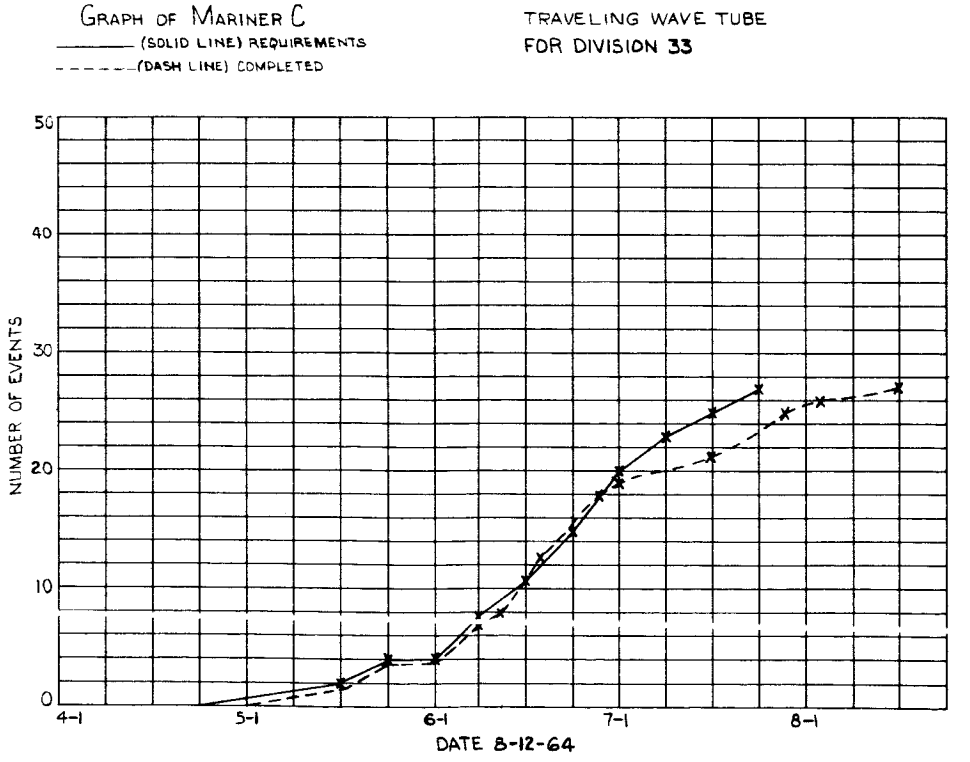

GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
REVISED PLANS 6-16-64
FLOW PLAN DATA
FOR DIVISION: ALL
NUMBER OF EVENTS
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
MC-2
PTM
FLIGHT MC-2, 3 & 4
2-1-64
4-1
6-1
8-1
10-1
12-1
2-1-64
4-1
6-1
8-1
DATE 8-26-64

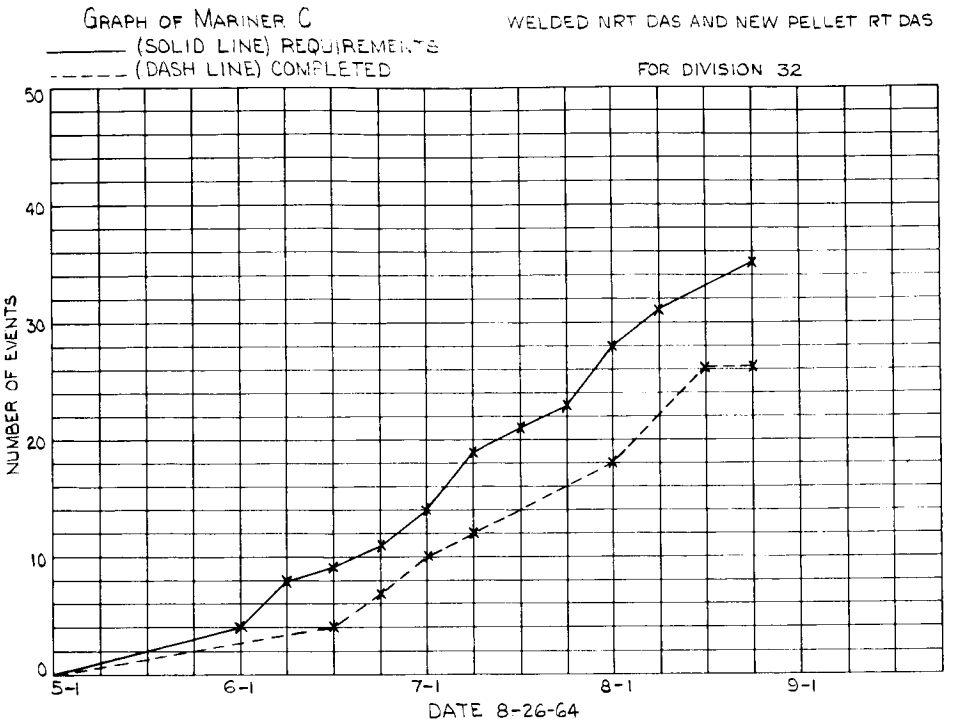

GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
FLOW PLAN DATA
FOR DIVISION 31
NUMBER OF EVENTS
50
40
30
20
10
0
PTM TO SAF
MC-2
COMPLETE
FLIGHT
2-1-63
4-1
6-1
8-1
10-1
12-1
2-1-64
4-1
6-1
8-1
9-1
DATE 8-26-64

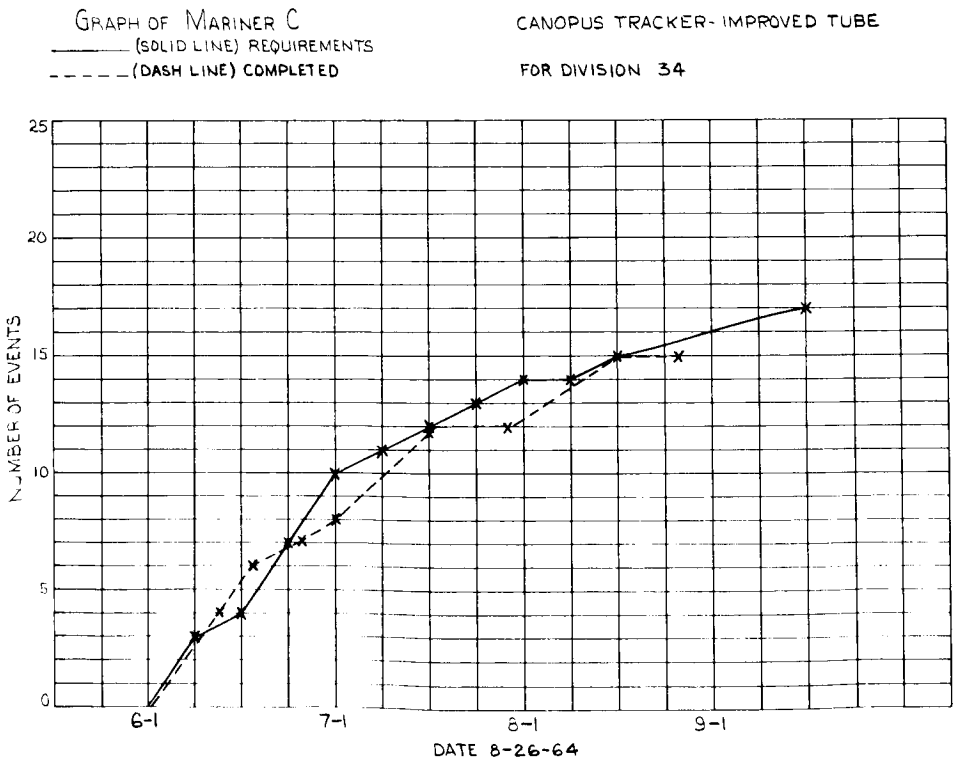

GRAPH OF MARINER C
FLOW PLAN DATA
FOR DIVISION 32
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
RESCHED. TV RUGGEDIZED
RESCHED. NEW DAS PELLET RT AND WELDED NRT
NUMBER OF EVENTS
0
50
100
150
200
250
MC-2
FLIGHT MC-2, 3, & 4
2-1-63
4-1
6-1
8-1
10-1
12-1
2-1-64
4-1
6-1
8-1
DATE 8-26-64

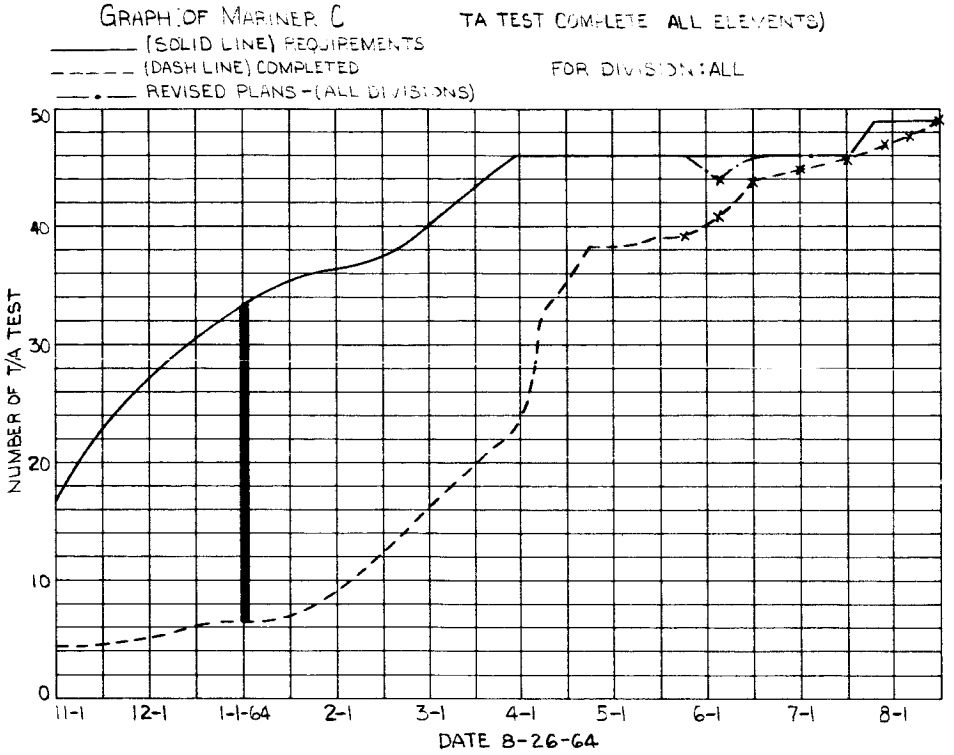

GRAPH OF MARINER C
FLOW PLAN DATA
FOR DIVISION 33
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
REVISED PLANS (RADIO - TWT)
NUMBER OF EVENTS
0
50
100
150
200
250
MC-2
FLIGHT MC-2, 3, & 4
2-1-63
4-1
6-1
8-1
10-1
12-1
2-1-64
4-1
6-1
8-1
DATE 8-26-64

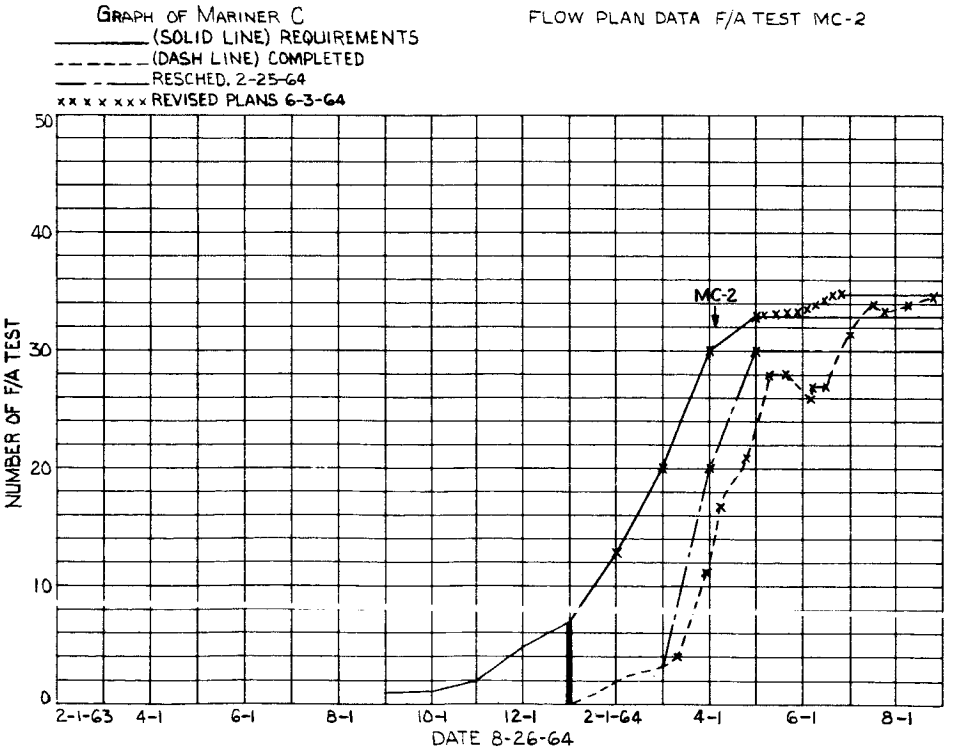

GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
REVISED PLANS (CANOPUS SENSOR) 6-3-64
FLOW PLAN DATA
FOR DIVISION 34
NUMBER OF EVENTS
250
200
150
100
50
0
MC2
FLIGHT MC 2,3,& 4
2-1-63
4-1
6-1
8-1
10-1
12-1
2-1
4-1
6-1
8-1
DATE 8-26-64

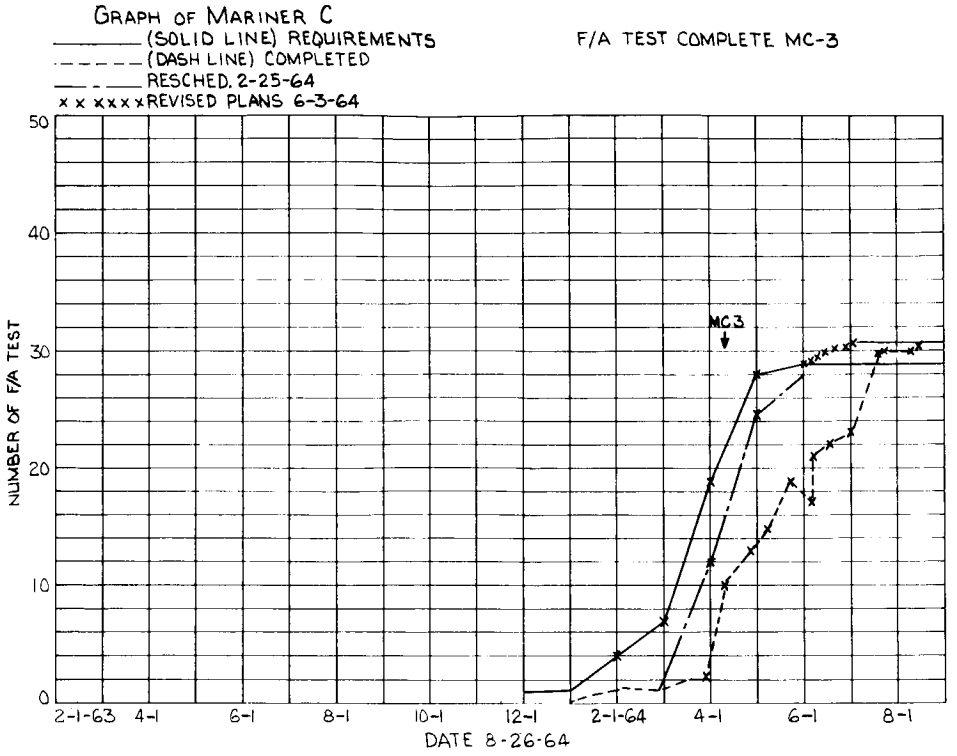

GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
TRAVELING WAVE TUBE
FOR DIVISION 33
NUMBER OF EVENTS
50
40
30
20
10
0
4-1
5-1
6-1
7-1
8-1
DATE 8-12-64

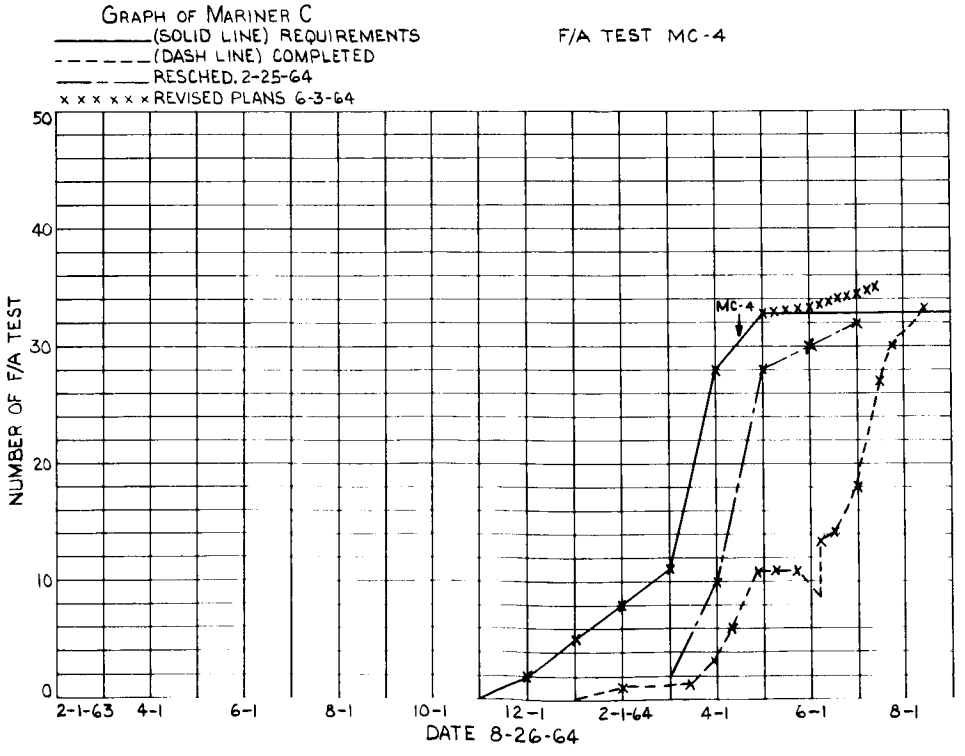

GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
WELDED NRT DAS AND NEW PELLET RT DAS
FOR DIVISION 32
NUMBER OF EVENTS
0
10
20
30
40
50
5-1
6-1
7-1
8-1
9-1
DATE 8-26-64


GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
CANOPUS TRACKER- IMPROVED TUBE
FOR DIVISION 34
NUMBER OF EVENTS
0
5
10
15
20
25
6-1
7-1
8-1
9-1
DATE 8-26-64


GRAPH OF MARINER C
TA TEST COMPLETE ALL ELEMENTS)
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
FOR DIVISION: ALL
REVISED PLANS - (ALL DIVISIONS)
NUMBER OF T/A TEST
0
10
20
30
40
50
11-1
12-1
1-1-64
2-1
3-1
4-1
5-1
6-1
7-1
8-1
DATE 8-26-64


GRAPH OF MARINER C
FLOW PLAN DATA F/A TEST MC-2
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
RESCHED. 2-25-64
REVISED PLANS 6-3-64
MC-2
NUMBER OF F/A TEST
0
10
20
30
40
50
2-1-63
4-1
6-1
8-1
10-1
12-1
2-1-64
4-1
6-1
8-1
DATE 8-26-64


GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
RESCHED. 2-25-64
REVISED PLANS 6-3-64
F/A TEST COMPLETE MC-3
MC3
NUMBER OF F/A TEST
0
10
20
30
40
50
2-1-63
4-1
6-1
8-1
10-1
12-1
2-1-64
4-1
6-1
8-1
DATE 8-26-64


GRAPH OF MARINER C
(SOLID LINE) REQUIREMENTS
(DASH LINE) COMPLETED
RESCHED. 2-25-64
REVISED PLANS 6-3-64
F/A TEST MC-4
MC-4
NUMBER OF F/A TEST
0
10
20
30
40
50
2-1-63
4-1
6-1
8-1
10-1
12-1
2-1-64
4-1
6-1
8-1
DATE 8-26-64

IV. SAF DELIVERY SUMMARY AND CHARTS

SAF delivery summary

Report No. 46

Through 1-26-65 Inclusive

(Initial Delivery of Flt. Equip.)

DEL. / ACC.

No Spares to be Del.

	ITEM DESCRIPTION	PTM MC-1	MC-2	MC-3	MC-4	MC-5 SPARES	REMARKS
	Project Delivery Schedule	11-1-63	4-3-64	4-10-64	4-17-64	5-1-64	
DIV 32	Data Automation System	1-9 / 1-11	4-30 / 5-5	7-6 / 7-10	7-25 / 7-27	9-11 / 9-15	9-16 / 9-18
DIV 32	Cosmic Ray Telescope	1-15 / 1-17	4-25 / 5-1	6-2 / 7-14	7-7 / 7-28		
DIV 32	Cosmic Dust Det.	11-21 / 12-3	5-19 / 6-2	5-22 / 5-25	7-20 / 7-21		
DIV 32	Trapped Radiation Det.	1-7 / 1-7	4-14 / 4-28	5-12 / 5-14	6-23 / 7-24		
DIV 32	Ion Chamber	12-7 / 12-10	3-27 / 4-2	4-3 / 4-7	4-23 / 4-30		
DIV 32	Scan Subsystem	12-3 / 12-9	4-23 / 5-4	5-13 / 5-20	7-17 / 7-27		
DIV 32	Plasma Probe	12-13 / 12-17	5-2 / 5-7	5-20 / 5-25	6-19 / 8-1		
DIV 32	Magnetometer	12-17 / 12-20	5-4 / 5-6	7-8 / 7-16	6-30 / 7-21		
DIV 32	~~U.V. Photometer~~	—	—	—	—	—	Deleted
DIV 32	T.V. Subsystem	12-4 / 12-10	4-20 / 5-1	5-1 / 5-7	7-20 / 7-23	8-1 / 8-5	
DIV 33	Communications Case V	2-17 / 3-26	7-9 / 8-19	7-20 / 7-22	8-8 / ?	9-25 / 9-27	
DIV 33	Communications Case VI TWT	2-17 / 3-26	7-9 / 8-19	7-20 / 7-22	8-8 / ?	9-25 / 9-27	
DIV 33	High Gain Antenna	2-6 / 2-10	4-7 / 4-16	4-17 / 4-19	4-22 / 4-25		
DIV 33	Low Gain Antenna	1-17 / 1-20	4-16 / 4-24	4-29 / 5-14	5-14 / 7-16	7-31 / 8-4	
DIV 33	Data Encoder	10-30 / 11-6	4-15 / 4-25	4-30 / 5-5	5-14 / 5-22		
DIV 33	Command	10-30 / 11-6	4-6 / 4-27	4-14 / 4-27	5-5 / 6-3		
DIV 33	Tape Recorder	12-11 / 12-13	5-6 / 5-8	5-19 / 5-23	5-23 / 6-3	5-27 / 6-3	
DIV 34	Power Electronics Case I	11-15 / 11-20	3-27 / 4-8	3-27 / 4-8	4-8 / 4-18	7-28 / 7-29	
DIV 34	Power Regulator Case VIII	11-26 / 12-5	3-30 / 4-21	4-3 / 4-21	4-8 / 4-21	8-21 / 8-31	
DIV 34	Battery	1-6 / 1-6					Flt Det AMR
DIV 34	Solar Panels Assys. (4)	T/A / T/A	4-22 / 4-28	6-1 / 7-20	6-5 / 7-20		2 req for MC-4 only
DIV 34	CC&S	11-1 / 11-2	4-7 / 4-27	4-10 / 4-27	4-20 / 5-1	6-4 / 6-11	

SAF delivery summary (Cont'd)

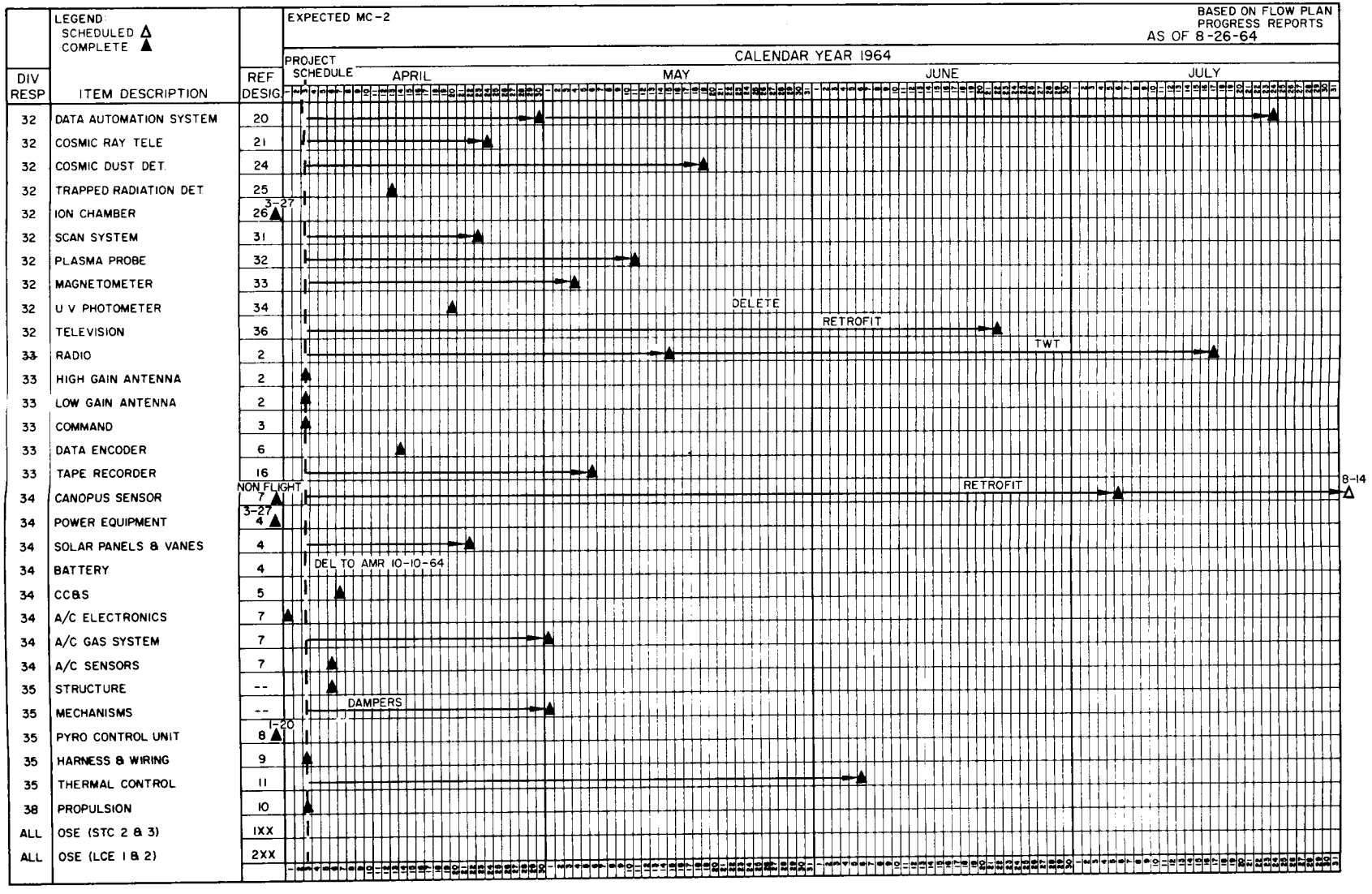
	ITEM DESCRIPTION	PTM MC-1	MC-2	MC-3	MC-4	MC-5 SPARES	REMARKS
Div 34	A/C & Gyro Elect. (Case VII)	1-7 / 1-10	4-6 / 4-6	5-13 / 5-21	6-3 / 6-3	9-3 / 9-10	
	Solar Vane Cont. (Electronics & Actuator (4)	3-3 / 3-6	5-1 / 5-4	6-2 / 7-31	7-23 / 7-31		
	A/C Gas System +X/-Y	11-19 / 11-22	4-30 / 7-31	6-2 / 7-31	7-28 / 7-31	11-14 / ?	
	A/C Gas System -X/+Y	11-19 / 11-22	5-1 / 7-31	6-2 / 7-31	7-28 / 7-31	11-14 / ?	
	A/C Jet Gas Manifolds (Valve (Assys.)	11-19 / 11-22	5-1 / 7-31	6-2 / 7-31	7-28 / 7-31	11-14 / ?	
	Sun Sensors (4)	10-29 / 11-2	2-17 / 3-2	4-9 / 4-11	5-22 / 6-4	6-17 / ?	
	Sun Gate	10-29 / 11-2	2-17 / 3-2	4-9 / 4-11	5-22 / 6-4	6-17 / ?	
	Earth Detector	12-10 / 12-12	4-6 / 4-7	4-23 / 4-24	6-5 / 6-7	6-5 / 6-7	
	Canopus Sensor	12-16 / 12-17	7-2 / 7-8	8-6 / 8-8	8-11 / 8-12	→	None Del through F.A.
	Narrow Angle Mars Gate	11-20 / 11-26	12-17 / 12-17	3-16 / 3-16	3-16 / 3-16		
Div 35	Octagon Structure	11-1 / 11-1	4-6 / 4-7	4-24 / 4-24	4-24 / 4-24		
	~~Pnl-Rot Suppt~~ Struct & ~~Sprg~~	11-19 / 11-26	— —	— —	— —	— —	Deleted
	Pnl Suppt Dampers - Boost (8)	3-23 / 3-24	4-8 / 4-14	4-27 / 4-28	7-8 / 7-16		
	Pnl Open Dampers - Cruise (4)	3-23 / 3-24	7-6 / 7-6	7-24 / 7-28	7-24 / 7-28		
	Low Gain Antenna Dampers	3-24 / 3-24	4-8 / 4-14	4-8 / 4-23	7-8 / 7-16		
	PIPS Support Structure	11-7 / 11-11	4-3 / 4-7	4-10 / 4-15	5-12 / 5-17		
	Pedestals (2)	11-1 / 11-1	4-6 / 4-7	4-24 / 4-24	4-24 / 4-24		
	Pyro Arming Switch	10-21 / 10-22	1-21 / 2-3	1-21 / 2-3	1-21 / 2-3	1-21 / 2-3	
	Scan Platform	11-26 / 11-26	4-6 / 4-7	4-24 / 4-24	4-24 / 4-24		
	Pyro Control Assy (2)	11-19 / 11-20	3-17 / 3-28	3-17 / 3-20	4-7 / 4-10	5-26 / 6-1	
	Pin Puller Assys.	11-1 / 11-6	6-1 / 6-2	6-1 / 6-2	6-1 / 6-2	6-1 / 6-2	
	Panel Motion Sensors	11-6 / 11-6	6-1 / 6-2	6-1 / 6-2	6-1 / 6-2		
	Platform Motion Sensors	11-6 / 11-6	6-1 / 6-2	6-1 / 6-2	7-16 / 7-28		
	Panel Squibs	11-6 / 11-6	— — —	— — —	— — —	—	Flt Del AMR
	Scan Platform Squibs	11-6 / 11-6	— — —	— — —	— — —	—	Flt Del AMR
	Slr. Press. Vane Assy (4) -(Vane & Deploy Mechs.)	11-5 / 11-5	4-1 / 4-10	4-1 / 4-10	4-1 / 4-10		
	Louver Subassemblies (4)	10-24 / 10-24	3-3 / 3-9	4-2 / 4-3	4-21 / 4-22	6-15 / 8-3	

SAF delivery summary (Cont'd)

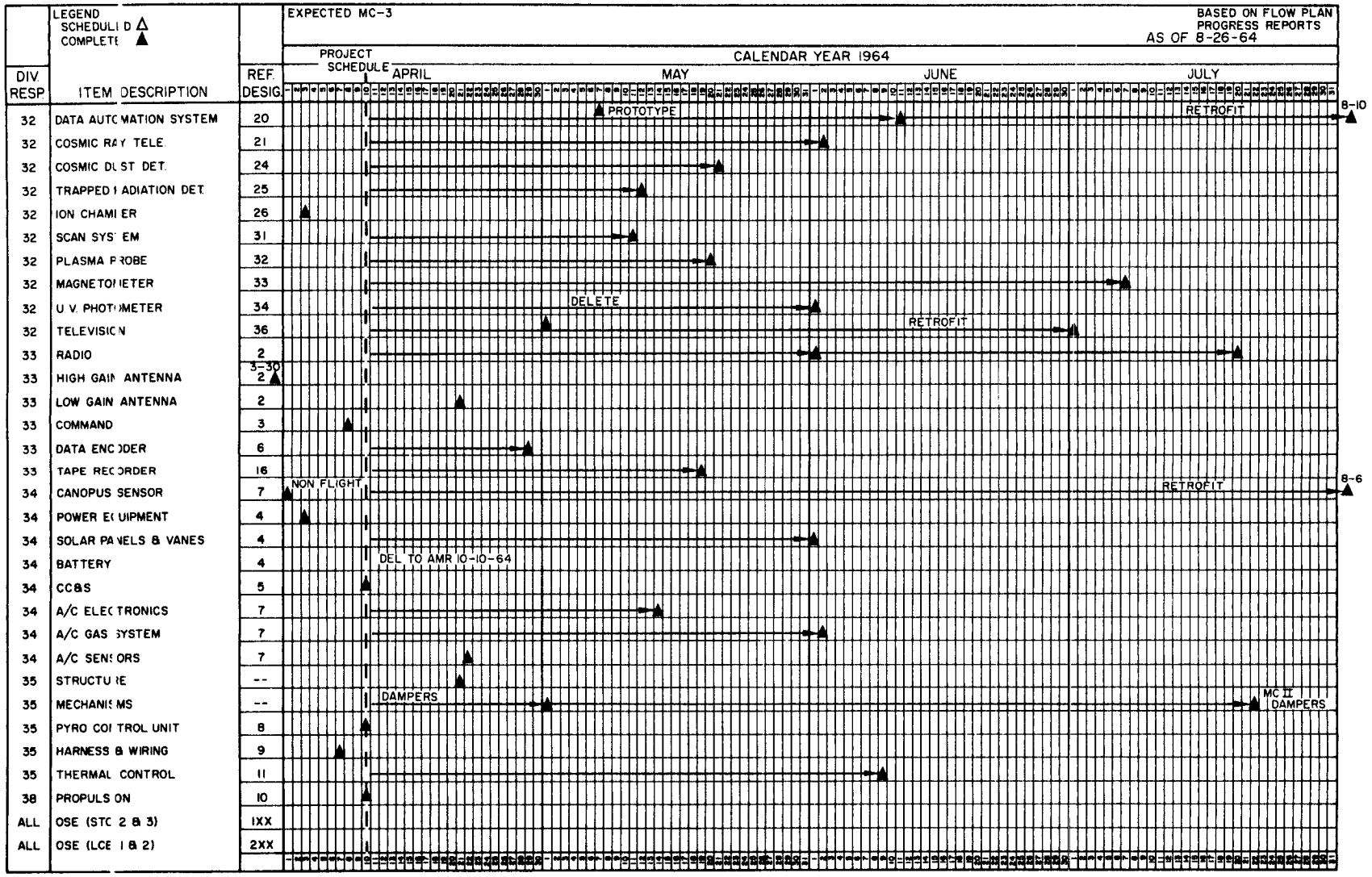
ITEM DESCRIPTION	PTM MC-1	MC-2	MC-3	MC-4	MC-5 SPARES	REMARKS
Thermal Shields (2)	2-18 / 2-21	6-6 / 6-26	6-9 / 7-1	7-9 / 8-17	6-15 / 10-8	
Absorptivity Standard	10-31 / 11-1	6-15 / 7-14	6-15 / 7-14	6-15 / 7-20		
Separation Initiated Timer	11-2 / 11-6	4-3 / 4-7	4-3 / 4-7	4-24 / 4-27		
Upper Ring Harness	10-30 / 11-1	3-31 / 4-6	4-7 / 4-10	6-8 / 6-9		
Lower Ring Harness	11-14 / 11-15	3-27 / 4-8	4-7 / 4-8	6-8 / 6-27		
Misc. Harnesses	11-12 / 11-15	4-21 / 4-21	5-14 / 5-14	6-12 / 8-1		
SPITS & MESS	7-16 / ?	7-9 / 8-4	7-20 / 7-24	7-16 / 8-1	8-17 / 8-18	
Propulsion Assy. (Bay II)	11-1 / 11-8	4-3 / 4-7	4-10 / 4-15	5-12 / 5-19		
Propulsion Squibs	11-1 / 11-8	— / —	— / —	— / —	— / —	Flt Del AMR

38

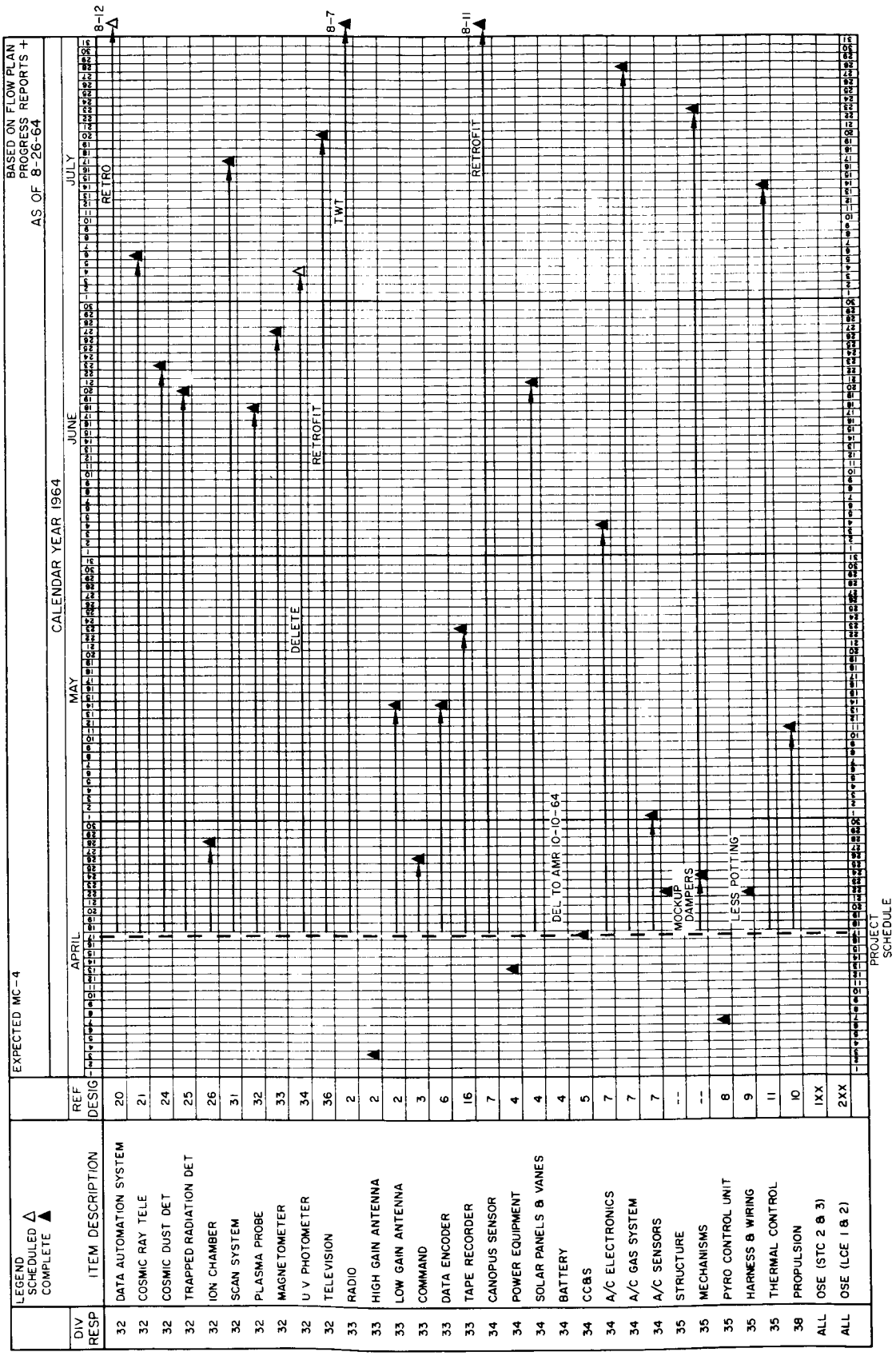
Spacecraft MC-2 hardware delivery to SAF



Spacecraft MC-3 hardware delivery to SAF



Spacecraft MC-4 hardware delivery to SAF



V. HARDWARE SYSTEM QUALIFICATION MATRIXES

Code for hardware system qualification matrixes

CODE

A - Late deliveries and F/A Testing.
B - Removed from MC-4 at chamber break and el. to ETR to support MC-2.
C - Normally not on board S/C during these tests.
D - Removed from MC-2 to replace connector.
E - Test not accomplished on MC-4.
F - Removed from MC-4 to support MC-2.
G - No opportunity to test.
H - Temp. control redesigned.
J - PTM PIPS used during vib. test.
K - Removed for insul. washer & tube mtg. ECR's.
L - Not available - after S/N MC-2 & 4 frozen, S/N MC-1 & 5 were rebuilt to new design & F/A testing. (Previously was tested during PTM testing.)
M - Removed for failure analysis - replaced after vibration and free mode.
N - Removed because HV transformer failed & was repaired.
P - T.V. Camera Head change-out and re-F/A.
Q - From MC-3.
R - Originally a spare - replaced S/N 003.
T - Abs. Std.-unit replaced with a more reliable unit.

Spacecraft MC-2 hardware system qualification

DIVISION NUMBER	EQUIPMENT TITLE	REFERENCE DESIGNATOR	HARDWARE SERIAL NUMBER	SYSTEM TEST	CHAMBER PART I	CHAMBER PART II	FREE MODE	VIBRATION	FINAL SYSTEMS TEST	SHIP ON S/C	ETR 1st SYSTEM TEST	J-PACT	FINAL SYSTEM TEST	FLIGHT
32	DAS RT	20A2,4	MC-5	A	MC-4	B	B	MC-4	X	S/S	B	B	X	X
32	DAS NRT	20A3	MC-5	A	X	X	X	X	X	X	X	X	X	X
32	DAS Buff & TR	20A1,5	6 & 4	X	X	X	X	X	X	X	X	X	X	X
32	Scan (Incl NAMG & ScC)	31A1,2	3 & 3	X	X	X	X	X	X	X	X	X	X	X
32	Scan Elect	31A3	3	X	X	X	X	X	X	X	X	X	X	X
32	Television	36	5	X	X	X	X	X	X	X	X	X	X	X
33	Radio (Minus TWT)	2	6	X	X	X	X	X	X	X	X	X	X	X
33	Radio (Power Ampl TWT)	2	14349	A	X	X	X	X	X	X	X	X	X	X
33	Command	3	4	X	X	X	X	X	X	X	X	X	X	X
33	Data Encoder	6	101	X	X	X	X	X	X	X	X	X	X	X
33	Tape Recorder	16	5 & 8	X	X	X	X	X	X	X	X	X	X	X
34	Power (Electronics)	4	005	X	X	X	X	X	X	X	X	X	X	X
34	Solar Panels	4	6, 7 8, 9	C	C	C	X	X	C	S/S	C	C	C	X
34	CC&S	5	002	X	X	X	X	X	X	X	X	X	X	X
34	A/C Electronics	7	004	X	X	X	X	X	D	D	X	X	X	X
34	Gyros & Electronics	7	014	X	X	X	X	X	X	S/S	X	X	X	X
34	A/C Sensors	7	005	X	X	X	X	X	X	X	X	X	X	X
34	Canopus Sensor	7	102	MC-4	MC-4	MC-4	E	MC-4	E	S/S	F	G	X	X
34	A/C Gas	7	34 + 35	X	X	X	X	X	X	X	X	X	X	X
35	Temperature Control	11	VAR	X	H	X	X	X	X	X	X	X	X	X
38	Pyro Control	8	1007 1008	X	X	X	X	X	X	X	X	X	X	X
38	PIPS	10	004	X	X	X	X	J	X	X	X	X	X	X

NON-CRITICAL EQUIPMENT

32	Cosmic Ray Telescope	21	MC-2	X	X	X	X	X	X	X	X	X	X	X
32	Cosmic Dust Detector	24	5	X	X	X	X	X	X	X	X	X	X	X
32	Trap Radiation Detector	25	2	X	X	X	X	X	X	X	X	X	X	X
32	Ion Chamber	26	112	X		X	X	X	X	X	X	X	X	X
32	Plasma Probe Cup	32A1	401	X	X	X	X	X	X	X	X	X	X	X
32	Plasma Elect	32A2,3,4	3,3,4	X	X	X	X	X	X	X	X	X	X	X
32	Magnetometer	33A1,3	MC-4	X	X	X	X	X	X	X	X	X	X	X
32	Magnetometer T/R	33A2	MC-1	L	L	L	L	L	L	L	X	X	X	X
35	Abs Std	11	C-110	T	T	T	T	T	T	T	T	X	X	X

Spacecraft MC-3 hardware system qualification

DIVISION NUMBER	EQUIPMENT TITLE	REFERENCE DESIGNATOR	HARDWARE SERIAL NUMBER	SYSTEM TEST	VIBRATION	FREE MODE	CHAMBER PART I	CHAMBER PART II	FINAL SYSTEMS TEST	SHIP ON S/C	ETR 1st SYSTEM TEST	J-PACT	FINAL SYSTEM TEST	FLIGHT
32	DAS RT	20A2,4	MC-6	A	A	A	A	MC-4			4	X	X	X
32	DAS NRT	20A3	MC-7	A	A	X	X	X	X	X	X	X	X	X
32	DAS Buff & TR	20A1,5	5 ; 5	*X	*X	*X	*X	*X	*X	*X	*X	*X	X	X
32	Scan (Incl NAMG & ScC)	31A1,2	6 ; 6	X	M	M	X	X	X	X	X	X	X	X
32	Scan Elect	31A3	5	X	M	M	X	X	X	X	X	X	X	X
32	Television	36	MC-4	P	P	P	X	X	X	X	X	X	X	X
33	Radio (Minus TWT)	2	9	X	X	X	X	X	X	X	X	X	X	X
33	Radio (Power Ampl TWT)	2	14350	X	X	X	X	X	X	X	X	X	X	X
33	Command	3	8	X	X	X	X	X	X	X	X	X	X	X
33	Data Encoder	6	301	X	X	X	X	X	X	X	X	X	X	X
33	Tape Recorder	16	7 ; 10	X	X	X	X	X	X	3/5	X	X	X	X
34	Power (Electronics)	4	6 ; 4	X	X	X	X	X	X	X	X	X	X	X
34	Solar Panels	4	10,11 12,13	C	X	X	C	C	C	5/5	C	C	C	X
34	CC&S	5	CC3	X	X	X	X	X	X	X	X	X	X	X
34	A/C Electronics	7	CC5	X	X	X	X	X	X	5/5	X	X	X	X
34	Gyros & Electronics	7	015	X	X	X	X	X	X	5/5	X	X	X	X
34	A/C Sensors	7	CC6	X	X	X	X	X	X	X	X	X	X	X
34	Canopus Sensor	7	CC4	X	A	A	A	A	A	5/5	MC-4	X	X	X
34	A/C Gas	7	26 ; 27	X	X	X	X	X	X	X	X	X	X	X
35	Temperature Control	11	VAR	X	X	X	X	X	X	5/5	X	X	X	X
38	Pyro Control	8	1011 1012	X	X	X	X	X	X	X	X	X	X	X
38	PIPS	10	CC5	X	J	X	X	X	X	X	X	X	X	X

NON-CRITICAL EQUIPMENT

32	Cosmic Ray Telescope	21	MC-3	X	X	X	X	X	X	X	X	X	X	X
32	Cosmic Dust Detector	24	6	X	X	X	X	X	X	X	X	X	X	X
32	Trap Radiation Detector	25	MC-3	X	X	X	X	X	X	X	X	X	X	X
32	Ion Chamber	26	113	X	X	X	X	X	X	5/5	X	X	X	X
32	Plasma Probe Cup	32A1	403	A	X	X	MC-4 X	MC-4 X	X	MC-4	MC-4	X	X	X
32	Plasma Elect	32A2,3,4	4,4,5	A	X	X	MC-4 X	MC-4 X	X	MC-4	MC-4	X	X	X
32	Magnetometer	33A1,3	MC-3	X	X	X	X	X	X	5/5	X	X	X	X
32	Magnetometer T/R	33A2	MC-3	X	X	X	X	X	X	5/5	X	X	X	X
35	Abs Std	11	C106	X	X	X	X	X	X	X	X	X	X	X

* NOTE: 20A1 S/N 3 WAS IN S/C TILL FINAL S/T AT ETR

Spacecraft MC-4 hardware system qualification

DIVISION NUMBER	EQUIPMENT TITLE	REFERENCE DESIGNATOR	HARDWARE SERIAL NUMBER	SYSTEM TEST	VIBRATION	CHAMBER I (FAILURE)	CHAMBER PART I	CHAMBER PART II	FINAL SYSTEMS TEST (WENT ON MC-4)	SHIP ON S/C	FCR 1st SYSTEM TEST	J-FACT	FINAL SYSTEM TEST	FLIGHT
32	DAS RT	20A2,4	MC-4	X	A	A	A	B			B	X	X	
32	DAS NRT	20A3	MC-6	A	A		A	X			X	X	X	
32	DAS Buff & TR	20A1,5	3 6	* X	* X	* X	* X	* X			X	X	X	
32	Scan (Incl NAMG & ScC)	31A1,2	757	MC 3	X	X	X	X		X	X	X	X	
32	Scan Elect	31A3	6	A	A		X	X		X	X	X	X	
32	Television	36	MC-3	9	MC 3 X	X	X	X		X	X	X	X	
33	Radio (Minus TWT)	2	MC-5	A	A		A	A		S/S	X	X	X	
33	Radio (Power Ampl TWT)	2	14347	A	A		A	A		S/S	X	X	X	
33	Command	3	5	X	X	X	X	X		X	X	X	X	
33	Data Encoder	6	201	X	X	X	X	X		X	X	X	X	
33	Tape Recorder	16	457	X	X	X	X	X		S/S	X	X	X	
34	Power (Electronics)	4	453	X	X	X	X	X		X	X	X	X	
34	Solar Panels	4	14415	C	X	C	C	C		S/S	C	C	C	
34	CC&S	5	004	X	X	X	X	X		X	X	X	X	
34	A/C Electronics	7	006	R	R		X	X	MC-2	X	X	X	X	
34	Gyros & Electronics	7	017	R	R	R	R	R		R	R	R		
34	A/C Sensors	7	007	X	X	X	X	X		X	X	X	X	
34	Canopus Sensor	7	003	MC-2	A	MC-2 MC-3	MC 3	MC 3		MC 3	MC 3	X	X	
34	A/C Gas	7	28 27	X	X	X	X	X		X	X	X	X	
35	Temperature Control	11	VAR	X	X	X	X	X		X	X	X	X	
38	Pyro Control	8	1013 1014	X	X	X	X	X		X	X	X	X	
38	PIPS	10	006	X	J	X	X	X		X	X	X	X	

NON-CRITICAL EQUIPMENT

32	Cosmic Ray Telescope	21	MC 4	X	X	X	X	X		S/S	X	X	X	
32	Cosmic Dust Detector	24	4	X	X	X	X	X		S/S		X	X	
32	Trap Radiation Detector	25	4	X	X	X	X	X		S/S		X	X	
32	Ion Chamber	26	114	X	MC-2 X	X	X	X		S/S	X	X	X	
32	Plasma Probe Cup	32A1	408	A	MC 3	MC 3 X	MC-3 X	MC-3 X	MC-3	X	X	X	X	
32	Plasma Elect	32A2,3,4	6,6,7	X	X	MC 3 X	MC-3 X	MC 3 X	MC-3	X	X	X	X	
32	Magnetometer	33A1,3	2	X	X	X	X	X		S/S	X	X	X	
32	Magnetometer T/B	33A2	5	L	L	L	L	X		S/S	X	X	X	
35	Abs Std	11	C-107	T	T	T	T	T		X	X	X	X	

* NOTE. 20A1 S/N 5 WAS ON S/C THE FIRST S/C AT CTR

Spacecraft MC-5 hardware system qualification

DIVISION NUMBER	EQUIPMENT TITLE	REFERENCE DESIGNATOR	HARDWARE SERIAL NUMBER	SYSTEM TEST	FREE MODE	VIBRATION	CHAMBER PART I	CHAMBER PART II	MC-4 VAC FAIL	FINAL SYSTEM TEST	FTR 1st SYSTEM TEST	J-FACT	FINAL SYSTEM TEST	S/C TO PAD
32	DAS BUFFER	20A1	4	SPARE										
32	DAS RT	20A2 20A4	3	MC-3	MC 3	MC-3	MC-3	MC-3		MC-3	MC-3	MC 3	SPARE	
32	DAS NRT	20A3	4	SPARE										
32	DAS T/R	20A5	7	SPARE										
32	SCAN SENSOR	31A1	5		MC 3	MC-3 MC-4	SPARE							
32	SCAN ELET & T/R	31A2	4	SPARE										
32	SCAN ELET	31A3	4		MC-3	MC-3 MC-4	SPARE							
32	PLASMA PROBE CUP	32A1	MC-1 3&4								MC-3	SPARE		
32	PLASMA ELECT.	32A2 3 4	5,5,6								MC-3	SPARE		
32	TELEVISION	36	2	MC-3	SPARE									
33	RADIO (MINUS TWT)	2	7	MC-4		MC 4	MC-4		MC 4	SPARE				
33	RADIO (POWER AMP TWT)	2	14351	MC 4		MC-4			MC-4	SPARE				
33	TAPE RECORDER	16	6,4	MC-4		MC-4	MC 4	MC-4	MC-4		MC 4	SPARE		
34	POWER ELECT	4A8	06	SPARE										
34	POWER ELECT (CASE I)	4A11-18	3	SPARE										
34	CC & S	5	005	SPARE										
	A/C ELECT	7A1	007	SPARE										
	GYRO ELECT	7A2	016	MC-4		MC-4	MC-4	MC-4	MC-4	SPARE				
	A/C GAS	7GA1&2	30/31	SPARE										
	A/C SENSORS	7	8	SPARE										
	CANOPUS SENSOR	7CS8	105	SPARE										

NON-CRITICAL EQUIPMENT

APPENDIX H

Problem/Failure Report Summary

Complementing the design freeze and change control system was the incorporation of a rigorous problem/failure reporting system. This system provided a closed loop that allowed for effective collection, distribution, analysis, and corrective action of all reported anomalies. Problem/failure reports had to be written on any anomaly whatsoever associated with the spacecraft, beginning with the testing of the first modules that would ultimately be used in type approval, proof test model (PTM), or flight spacecraft.

The problem/failure report was used to record failures and problems occurring during type approval and/or flight acceptance testing of the PTM, the flight systems, and the flight spares, and during bench testing of subassemblies, assemblies, and subsystems, commencing with the first application of power. Reports were written at JPL and at Cape Kennedy during the *Mariner IV* flight, and were written on the flight spacecraft from telemetry data monitored at the SFOF. A summary of the nearly 1500 problem/failure reports written on tests, flight performance, and operational support equipment throughout the *Mariner* Mars 1964 program is presented in this appendix.

Sheet 1 of 9

R = Returned by Project Engineer
X = Answered but not closed

Page 1 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM I - STRUCTURES					
1030		N	1A	Structures Louvers	10-28-3	10-31-3	1-10-4	J. Jodele	Titanium screws galled, in slimserts.
1033	F	N	-	Solar Panel Booster Damper	12-4-3	12-4-3	12-18-3	P. Lyman	Epoxy bond failure.
1529	-	C	-	Rod End Bearing	12-4-3	12-10-3	3-10-4	L. Elliot	Axial looseness and galling of bolt.
5666	-	C	31A4	Scan Actuator	4-27-4	4-28-4	7-22-4	E. Floyd	Internal pressure decreased from 30 PSIA. to 15 PSIA. during FA test.
1040	-	N	J4 101453	Trough Assy; Ring Harness	12-7-3	12-17-3	1-14-4	L. Mitchell	Flange on trough crippled.
1041	-	N	J4 101420	Antenna, High Gain	12-7-3	12-17-3	1-16-4	J.Schmuecker	Five creases on bottom of dish.
1045	-	C	J4 101476	Support Assy; Low Gain Antenna	12-10-3	12-16-3	1-10-4	J.Schmuecker	Component cracked on outboard flange.
1048	-	N	J4 101304	Super Structure Assy.	12-7-3	12-17-3	1-14-4	R.Spehalski	Solar panel damper broken during removal.
1049	-	N	J4 201381	Attitude Contro Instal.	12-7-3	12-17-3	1-30-4	J. Lansford	Screws backed out.
1034	-	C	-	Solar Panel Structure	12-4-3	12-17-3	1-23-64	R. Moore	Buckling and cracks in corrugations.
3055	-	C	-	Solar Pnl.Damper Fitting	12-9-3	1-7-4	1-14-4	R. Moore	Bolts loosened during shake test.
1578	-	C	-	Solar Pnl.& End Bearing	-	12-20-3	1-23-4	L. Elliott	Bearings loosened in vibration.
3053	-	C	-	A/C Jet Shade	12-1-3	1-7-4	1-14-4	J. Randall	Bond broke Improper Preparation.
3061	F	C	JA10 1A20	High Gain Antenna	-	1-15-4	2-13-4	W. Layman	Various buckles on the underside skin of dish.
3045	-	C	-	Strap & Latch Assy.	2-10-4	2-11-4	3-3-4	J. Randall	Strap failed during vibration.
6033	F	C	31A4	Scan Actuator	5-20-4	5-21-4	7-22-4	J. Lansford	Scan platform would not scan with S/C Z axis horiz.
3064	-	C	-	Damper, Low Gain Antenna	2-12-4	2-14-4	3-4-4	P. Lyman	Fiberglass tube failed during T.A. shake.
3387	-	N	-	Louver Assemblies	2-17-4	2-17-4	3-3-4	G. Coyle	Screws will not screw in properly during T.A.

MARINER P/FR SUMMARY

Sheet 2 of 9

R = Returned by Project Engineer
X = Answered but not closed

Page 2 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM I - STRUCTURES					
3074	-	C	-	Science Cover Assy. Latch	2-20-4	2-20-4	3-10-4	G. Coyle	Latch CY801560 had struct. failure.
3410	-	N	-	Basic Octagon	2-29-4	3-2-4	3-31-4	J. Lansford	Press nut, located in bay 2, rotated.
1036	-	C	-	Solar Vane Latch	12-12-3	12-13-3	12-26-3	J. Randall	Strap on latching mechanism fractured.
1576	F	N	-	High Gain Ant. Reflector Assembly	12-24-3	12-31-3	1-30-4	W. Layman	Crack on back of reflector skin.
3101	-	N	-	High Gain Antenna	1-17-4	1-23-4	2-18-4	W. Carroll	Paint blistered on the dish.
3104	-	N	-	DTM	1-17-4	1-23-4	2-3-4	H. vonDeldon	Aluminum foil ruptured.
1032	-	N	-	Solar Panel Actuation	11-18-3	11-19-3	11-22-3	L. Elliott	Redesign of rewound spring.
1579	F	N	-	Temp. Cont. Louvers	1-22-4	1-27-4	2-7-4	G. Coyle	Position indicator open circuit.
3048	-	C	-	Solar Panel Retarder	1-21-4	1-24-4	5-6-4	E. Floyd	Fluid compensator recr. in volume.
3447	F	C	31A5	Science Scan Cover	4-1-4	4-1-4	4-17-4	G. Coyle	Cover experienced a catastrophic failure during noise vibration.
3034	F	N	-	Shear Plate Assy. Bay II	2-24-4	3-2-4	3-10-4	R.Spehalski	Thickness probe.
3065*	-	N	-	High Gain Ant/Pin Pullers Cabling	12-1-3	2-17-4	4-29-4	J.Schmuecker J. Earnest	Conn. GW14 contacts antenna dish.
3080	-	C	-	Solar Pnl. Rail Tube	2-18-4	2-19-4	3-21-4	W. Hough	Structural failure of skid rail.
3039	-	N	-	Solar Panel	-	2-13-4	3-10-4	R. Moore	Titanium bolts will not torque correctly due to lack of chamfer.
				MAR 11 1964					
3040	F	N	-	Super Structure Assy.	[illegible]	[illegible]	3-31-4	R.Spehalski	Two strut fittings failed at the welded joint between fitting & tube.
3068	-	N	-	Solar Panel Boost Damper	3-10-4	3-10-4	5-5-4	P. T. Lyman	One of the "Kees" on a Keensert backed out 0.060 inch.
				MAR 23 1964					

MARINER P/FR SUMMARY

Sheet 3 of 9

R = Returned by Project Engineer
X = Answered but not closed

Page 3 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM I - STRUCTURES					
3035	-	N	-	Cruise Damper	3-23-4	3-24-4	3-31-4	P. T. Lyman	One damper exhibited very little damping; allowing some "ring".
3033	-	C	-	Solar Panel-Damper	3-23-4	3-24-4	5-20-4	P. T. Lyman	Copper spring fingers tend to cam aluminum retaining collet.
3032	-	N	-	Solar Panel-Damper	3-23-4	3-24-4	3-31-4	P. T. Lyman	Retaining collet failed to drop over spring latch finger.
3031	-	N	-	Solar Panel-Damper	3-23-4	3-24-4	3-31-4	P. T. Lyman	Adjustment screw in latch changed adjustment.
3069	-	N	-	Retarder	3-23-4	3-24-4	7-21-4	E. L. Floyd	Latch never made contact with stopped panel.
3071	-	N	-	Retarder	3-23-4	3-24-4	7-21-4	E. L. Floyd	Retarder stopped panels approx. 5° short of their latch position.
3072	-	N	-	Solar Panel Pin Puller	3-23-4	3-24-4	4-4-4	A. Benedict	1 of 5 pin pullers fired flashed black soot onto solar panel.
5621	-	C	-	Solar Vane	3-23-4	3-24-4	5-5-4	J.C.Randall	Vane snapped open and jammed one outboard tube.
5622	-	C	-	Solar Panel Deploy Springs	2-23-4	3-24-4	4-17-4	J.C.Randall	Springs not strong enough to open last solar panel thru final 5°
5635	-	N	-	Solar Vane	3-23-4	3-24-4	5-20-4	J.C.Randall	Vane release strap actuated, but vane did not deploy.
3459	F	N	-	Lower Thermal Blanket	4-1-4	4-3-4	5-27-4	H. vonDelden	Mylar shield comes in contact with electrical therm. of Sun Sensors.
3462	F	N	-	Louvers	3-31-4	4-3-4	6-1-4	G. Coyle	Telemetry chl. 403 indicates open channel.
5636	F	-	-	Solar Panel Boost Dampers	3-4-4	3-4-4	[illegible]	W. Carroll	PV-100 temp. control paint flaked off small areas of damper bodies.
				APR 13 1964					
3463	-	N	-	Cruise Damper Assy.	4-8-4	4-8-4	6-13-4	P. Lyman	One ear of D4101530 damper assembly was bent.
3470	F	N	-	Spacecraft	4-9-4	4-9-4	5-20-4	J. Garba	Load cell clears solar pnls. by 0.20. Lifting cables clear solar pnl. 3".
3079	-	C	31A5	Science Cover Assy.	1-28-4	1-31-4	3-10-4	G. Coyle	Cover latch broke in vibration.
3473	-	N	-	Case VII	4-7-4	4-13-4	4-28-4	F. Rhodes	Inboard insert for mounting module 5A3 is loose & unscrewed from chass.

MARINER P/FR SUMMARY

Sheet 4 of 9

R = Returned by Project Engineer
X = Answered but not closed

Page 4 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM I - STRUCTURES					
6001	F	N	1A	Bracket	4-10-4	4-10-4	5-20-4	J. Lansford	Outboard insert does not receive the screw properly.
5669	-	C	-	Low Gain Antenna Dampers	4-10-4	4-15-4	4-29-4	D. Hess	Heavy condensation noticed on mylar boots of two dampers.
3385	F	N	-	Scan Actuator Support	-	2-10-4	5-5-4	G. Coyle	4-40- insert backed-out.
				APR 27 1964					
3487	F	N	-	Thermo Shield	4-27-4	4-27-4	5-20-4	H. vonDelden	Ear on shield above leg "A" interferes with installation of S/C lift bar.
3486	F	C	-	Solar Pnl. Installation	4-27-4	4-27-4	7-21-4	E. Freeman B. Carroll	Many mylar chips found lying on upper thermo shields.
5667	F	N	-	Top Thermal Shield	4-21-4	4-22-4	5-27-4	H. vonDelden	Top thermal shield zipper stitching failed at lower end of zipper.
3414	F	C	31A5	Science Scan Cover	2-25-4	3-4-4	4-14-4	G. Coyle	Frequent wide angle acquisitions due to light leaks.
				MAY 11 1964					
3504	F	N	-	Solar Panel Retarder	4-25-4	5-9-4	6-18-4	E. Floyd	Solar Panel #5 cable broke approx. by 1 inch from B4101571 fitting.
5662	F	N	-	Planetary Science Inst.	5-11-4	5-12-4	5-20-4	G. Coyle	Silicone rubber insert deteriorated along outboard edge of clamp.
6013	F	N	1A	Octagon H Frame	5-5-4	5-5-4	6-5-4	J. Lansford	Corner screw adjacent to conn. 9W15J1 snapped off in the insert.
6028	F	N	1A	Case III	5-12-4	5-13-4	7-30-4	J. Jodele	There was evidence of severe deflection of the case (back) structure.
				MAY 27 1964					
3515	F	N	-	Cruise Damper	5-15-4	5-23-4	6-2-4	P. Lyman	Damaged by applying too much pressure from solar pnl.indown/pos.
				JUN 8 1964					
5624	-	C	-	Octagonal Structure	6-12-4	6-15-4	8-18-4	W. Layman	Break & buckling occurred in Low Gain Antenna support channel.
7054	F	C	1A	Bus Pressnut	6-8-4	6-12-4	7-28-4	J. Lansford	Pressnut in bay 8, came loose when battery was being torqued up.

MARINER P/FR SUMMARY

Sheet 5 of 9

R = Returned by Project Engineer
X = Answered but not closed

Page 5 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM I - STRUCTURES					
5626	-	N	1A	Trough Assembly	6-13-4	6-16-4	7-2-4	K. Casani	Inspection revealed structural fail. at plates attach. to octagonal bus.
3536	F	C	1A	Octagonal Assembly	6-15-4	6-15-4	8-18-4	W. Lyman	Low Gain Ant. support Assy. cracked thru the outboard bolt hinge line.
				JUN 22 1964					
3037	F	N	9W	Trough Assy.	2-24-4	3-12-4	7-2-4	K. Casani	Structural failure at seven of the eight plates.
3530	F	N	9W	Upper Ring Harness Tray	-	6-9-4	7-2-4	K. Casani	Spot welds loose in each leg. near mounting bolt holes.
3514*	F	C	4A5	Solar Panel	5-23-4	5-25-4	6-30-4	R. Moore	Corner of pnl. spar bent in approx. 6.25 inch x 0.50 long.
3477*	F	N	16A4	Module	4-14-4	4-15-4	6-29-4	F. Rhodes	Threads damaged in ctr. for mounting module to case V chassis.
6030	F	C	-	All Experiments Outside Case III	5-18-4	5-18-4	8-18-4	J. Lansford	Problems encountered in maintaining isolation of science instruments.
3550*	F	C	1A/7A	A/C Gas System -X/+Y	6-25-4	6-25-4	9-24-4	J. Dahlgren	Reworked bellow tubing rides hard on trapped radiation mounting lug.
1082	F	N	1A	H. T. Screws	7-1-4	7-2-4	7-[illegible]	H. vonDelden	Two of eight DS82-10-3 screws did not lock into self-locking inserts.
				JUL 6 1964					
3535	F	N	-	Jet Shade	6-15-4	6-16-4	7-2-4	J. Randall	Shade buckled due to rough handling during assembly operations.
3526	F	N	9W1/9W2	Upper Ring Harness	6-6-4	6-6-4	7-2-4	K. Casani	4101453 tray cracked at each leg mtg. pt. spot welds pulled loops.
				JUL 9 1964					
3439	F	N	5A/7A	Case VII Chassis	3-19-4	3-19-4	4-4-4	J. Jodele	Insert under 5A1 backed out during mech. disassembly.
3444	F	N	5A/7A	Case VII Chassis	3-25-4	3-25-4	4-27-4	J. Jodele	Three mounting screws heads interfere with louver frame; module 5A9.
3476	F	N	-	Thermo Plate	4-15-4	4-16-4	5-5-4	R. vonDelden	Cable from temp. xducer rides sharp ledge in output on plate.
3344	F	N	31A5	Scan Platform Cover	1-14-4	1-14-4	2-7-4	G. Coyle	Open bulb in narrow mars gate stimulus.

MARINER P/FR SUMMARY

Sheet 6 of 9

R = Returned by Project Engineer
X = Answered but not closed

Page 6 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM I - STRUCTURES					
3443	F	N	33A2	Case III Magnetometer Elec. T/R	3-25-4	3-25-4	4-4-4	J. Jodele	Outboard insert on module 33A2 backed out.
3559	F	N	2E1	High Gain Antenna	7-8-4	7-8-4	7-28-4	W. Layman	Fabric loose and slight dent in corner of antenna.
3560	F	N	-	Case III Chassis	6-28-4	7-10-4	7-28-4	R. Fisher W. Read	Caps missing from (3) K-29044-06 Kaynar Inserts.
3562	F	C	-	Scan Cover Bumper Spring	7-13-4	7-14-4	8-7-4	G. Coyle	Bumper spring cracked and fell off when cover was opened.
8002	F	N	-	Bus (Octagonal)	7-8-4	7-8-4	7-28-4	J. Lansford	Bay 2, Leg "C", thread bad on one insert.
5628	-	C	-	MK II Cruise Damper	7-15-4	7-16-4	8-3-4	P. Lyman	Silicone fluid on fill plugs of 2 solar panel cruise dampers.
6107	F	N	31	Scan Platform	7-25-4	7-25-4	8-20-4	J. Lansford	Interference between tab and structure after cover was open.
7082	F	C	1A	Scan Platform	7-25-4	7-25-4	9-10-4	E. Floyd	Scan platform "chatters" instead of tracking smoothly.
5657	-	C	-	Science Cover Assy.	7-24-4	7-29-4	8-18-4	J. Randall	Oil leaked from sci. cover plate.
8004	F	N	-	Bus	7-15-4	7-16-4	8-21-4	J. Lansford	Two screws froze in their inserts, one in leg B.
8005	-	N	-	Case I	7-21-4	7-21-4	8-6-4	J. Jodele	Insert on top of Case I sticks out above mounting surface.
6113	F	N	1	Insert - E/A5 Chassis	7-31-4	7-31-4	8-7-4	J. Jodele	Insert (4-40 type), left side, 3 up from bottom backed out.
6114	F	N	4A8	Inserts - E/A8 Chassis	7-31-4	7-31-4	8-7-4	J. Jodele	Five inserts on Bay 8 case backed out.
8008	F	N	20A4	Module	7-28-4	7-28-4	8-7-4	W. Read	Module 20 A4 S/N came in with two loose inserts on hole side.
3565	F	N	32A2	Module (Case III)	7-17-4	7-20-4	9-13-4	J. Jodele W. Read	Potting Compound in one of the inserts for chassis mounting.
101003	F	N	-	Mock-up Data Encoder Sub Assemblies	[illegible]	[illegible]	[illegible]	R. Fisher	Mock-up subassemblies were found to have cut-passed
2571	-	N	-	Sunshutter Assy.	12-21-3	12-21-3	2-3-4	J. Lansford	Mounting holes no line up.
2569	F	N		Octagon Structure	12-18-3	12-18-4	1-30-4	J. Lansford	Press nut didn't accept screw properly.

MARINER P/FR SUMMARY

Sheet 7 of 9

R = Returned by Project Engineer
X = Answered but not closed

Page 7 of 112

* Interface

REPORT NO.	Flight OTE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM I - STRUCTURES					
7019	F	N	31A4	Scan Actuator	5-20-4	5-20-4	7-9-4	E. Floyd	Platform would not scan properly with 400 cycle.
7042	F	C	31A4	Scan Actuator	6-5-4	6-8-4	7-22-4	E. Floyd	Scan actuator drove to CCW stop and wouldn't reverse.
7043	F	C	31A4	Scan Actuator	6-6-4	6-8-4	7-15-4	E. Floyd	Runs erratically during first 90 degrees of C. W. scan.
7048	F	N	31A4	Scan Actuators	6-6-4	6-6-4	7-8-4	E. Floyd	Motors showed evidence of silicon grease seepage.
3554	F	N	-	Scan Cover Latch Assy.	6-27-4	6-29-4	7-28-4	E. Floyd	Ear broken off nylon bushing during free mode test.
2568	F	N	-	EA-3 Chassis	12-21-3	12-21-3	2-20-4	J. Jodele	Inserts backed out.
514	F	N	36A1 36A2	T.V. Camera Head	4-13-4	4-13-4	5-5-4	J. Casler	Base and saddle will not fit together. They were inspected.
				AUG 7 1964					
7087	-	N	1A	Boost Damper Bracket	7-30-4	7-30-4	8-18-4	R. Moore	Counterbore not concentric with fastener hole.
7089	F	N	11A	Thermal Control Sun Shade	7-30-4	7-30-4	8-18-4	H. Von Deldon	Shield was bent during solar panel installation in Bay 1.
7091	F	N	1A	Boost Damper Bracket	7-30-4	7-30-4	8-18-4	R. Moore	Rivnuts stripped out at 5 in-LB.
7093	F	C	8MI	Sep. Init. Timer	8-4-4	8-5-4	8-18-4	E. Floyd	Sep. Init. Timer partially released during mate of S/C to adapter.
7097	F	N		Case 5	8-6-4	8-6-4	9-10-4	J. Jodele	Kanar insert backed out. It appeared that locktite had been used.
8017	F	C	31A4	Scan Platform	8-6-4	8-7-4	9-13-4	E. Floyd	Action was extremely rough & also had some vibration.
3568	F	C	-	Deployment Spring	8-7-4	8-7-4	8-20-4	J. Randall	Aluminum washers bend and score when torqueing springs.
8021	F	N	31A	Scan Platform Cover	8-12-4	8-13-4	8-31-4	E. Floyd	Spring score platform cover during release movement.
8024	F	N	31A	Scan Platform	8-13-4	8-13-4	8-31-4	E. Floyd	Register in RC circuit on platform was not making contact.
5648	F	C	31A5	Science Cover Assy.	8-8-4	8-18-4	8-21-4	G. Coyle	Science cover failed to open to command.

MARINER P/FR SUMMARY

Sheet 8 of 9

R = Returned by Project Engineer
X = Answered but not closed

Page 8 of 112

* Interface

REPORT NO.	Flight OTE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM I - STRUCTURES					
7111	F	N	-	Case 5	8-10-4	8-10-4	9-10-4	J. Jodele	A 4-40 insert backed out.
5658	F	C	-	Upper Thermal Shield Blanket	7-31-4	8-17-4	8-2[illegible]-4	H. Von Deldon	Appeared as if blanket had shrunk, exposing edges of mylar blanket.
				AUG 24 1964					
8029	F	N	-	Top Thermo Shield	8-20-4	8-20-4	9-10-4	H. Von Deldon	Holes not alligned with top sun shield.
8033	F	N	-	Solar Panel	8-23-4	8-23-4	9-22-4	R. Moore	Panel S/N 14 seemed to chatter & be noisy at leg D hinge pt.
				SEPT 8 1964					
6129	F	N	-	Scan Platform Cover	9-1-4	9-1-4	9-19-4	G. Coyle	Scan stimulus light wired to wrong terminal on platform.
6126	F	N	31A5	Science Cover	9-2-4	9-3-4	9-28-4	G. Coyle	Monoball bolt on cover spring mechanism sheared.
				SEPT 21 1964					
8055	F	N	-	MC-4 Spacecraft	9-16-4	9-16-4	10-2-4	W. Layman	Deposit of fine metal shavings noticed after each case removal.
5632	F	C	-	Trough Assy. Ring Harness	9-5-4	9-21-4	10-1-4	W. Hough	One semi-vertical flange of the dbl separated from cable trough.
5637*	-	N	31A/1A	Life Test	9-12-4	9-22-4	10-2-4	E. Floyd	Contaminant collecting surfaces exhibited quantities of oily substan
7135	F	N	-	Temp. Control Louver	9-25-4	9-26-4	10-2-4	G. Coyle	Press nut in Bay 7 louver frame loose.
7136	F	N	7A	Solar Pressure Vane	9-25-4	9-25-4	10-2-4	J. Randall	Dessicant bag badly rubbed mylar on on the vane during shipment.
5640	F	N	-	Sep. Initiated Switch		9-12-4	10-1-4	E. Floyd	Switch does not function.
3570	F	N	-	Thermal Control Install.	8-6-4	8-7-4	10-9-4	H. VonDeldon	Shade in Bay I & VII must be individ ually fitted to each S/C.
3571	F	N	-	Thermal Control Install.	8-6-4	8-7-4	10-9-4	H. VonDeldon	DS82-10L-2 Screw too short: only engages approx. 2 threads.
3573	F	N	-	S/C Bus	7-21-4	7-21-4	10-9-4	J. Lansford	Inserts in Bay VI for mounting case VI bad.

MARINER P/FR SUMMARY

Page 9 of 112

Sheet 9 of 9

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight Ckt	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				**SUBSYSTEM 1 - STRUCTURES**					
8074	F	N	20A2	DAS Module	9-30-4	9-30-4	10-13-4	J. Jodele	Kaynar insert projects above surface of module ~ 0.010 inches.
3575	F	N	8M1	SIT Switch	9-24-4	9-24-4	10-22-4	G. Coyle	Switch fully cocked, but not operating micro switch.
				OCT 12 1964					
7140	F	N	2CA2	DAS Module	10-6-4	10-6-4	10-26-4	J. Lansford	Kaynar insert backed out of module.
3577	F	N	31A5	Science Cover	9-24-4	9-24-4	10-22-4	E. Floyd	Cover had broken wire on open switch
7162	F	N	-	Scan Actuator Switch	10-17-4	10-19-4	10-26-4	E. Floyd	Scan inhibit switch was closed after a DC-24.
9806	F	N	1A	Structures	9-3-4	10-19-4	10-26-4	W. Layman	Oil deposited on S/C during loss of vacuum on 3 Sept. 1964.
8077	F	N	31A5	Scan Cover Spring	10-21-4	10-22-4	10-27-4	G. Coyle	Spindle stud failed when torqued.
				OCT 27 1964					
3598	F	C	8AS1	PAS Switch	10-26-4	10-29-4	11-16-4	J. Randall	Switch would not return to closed position.
				NOV 16 1964					
5651	F	N	1A	Science Cover Latch Actuator	1-4-5	1-4-5	3-30-5	G. Coyle	Solenoid plunger movement not received at brush recorder.
				FEB 1 1965					
8078	F	N	EA7	Case VII Chassis	4-29-5	4-29-5	7-21-5	H. VonDeldon	Insert missing hole location
				MARCH 1 1966					

MARINER P/FR SUMMARY

Page 10 of 112

Sheet 1 of 10

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight Ckt	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				**SUBSYSTEM 2 - RADIO SUBSYSTEM**					
1580	F	C	2RA1	Receiver (x36 mult)	10-25-3	10-28-3	12-18-3	T. Cocca	Capacitor tuning adjustment was frozen.
707	-	N	-	Transponder Receiver Frequency Divider	11-11-3	11-12-3	12-30-3	T. Cocca	Co-Ax cable separated from connector.
2135	F	N	-	RF Drive Co-Ax Cable Co-Ax Connector	11-11-3	11-12-3	1-6-4	T. Cocca	Extensive unbalance, noise bias after confidence shake.
704	-	C	-	Phase Detector Loop Filter	11-12-3	11-13-3	1-23-4	T. Cocca	Transmitter output power intermittant.
708	-	N	-	Transponder Exciter x30 Multiplier	11-12-3	11-12-3	12-30-3	T. Cocca	Power output degraded during set.
709	F	C	-	Transponder Exciter x30 Multiplier	12-2-3	12-2-3	9-23-4	T. Cocca	Module operation & power output, degraded during preliminary sys. test.
2533	-	C	2PS1	H.V. Pwr. Supplier	12-2-3	1-3-4	4-6-4	T. Cocca	Intermittant capability to regulate.
714	-	N	2RA1	Xpndr. Rcvr. Sub. Assy.	12-21-3	12-30-3	2-6-4	T. Cocca	Voltage across CR6 out of spec.
716	-	N	2RA2	Xpndr. Rcvr. Sub. Assy.	12-21-3	12-30-3	1-31-4	T. Cocca	57.3 mc output 6db down.
718	-	N	2RE1	Xpndr. Exciter Sub.Assy	12-21-3	12-30-3	5-5-4	T. Cocca	Modulation sensitivity out of spec.
3350	-	N	-	Low Gain Antenna	1-18-4	1-18-4	2-26-4	T. Cocca	GM tube interferes with shield.
3355	F	N	2CC1	Control Unit	1-16-4	1-20-4	3-19-4	T. Cocca	Erroneously switched pwr. amps.
1581	F	N	2W25	Radio RF Cable Conn.	10-7-3	10-28-3	11-19-3	T. Cocca	Cable replaced.
1584	F	N	2RE1	Radio Subsystem	10-24-3	10-28-3	11-19-3	T. Cocca	Replaced with new design.
1583	F	N	2W13	Radio RF Cable Conn.	10-24-3	10-28-3	11-19-3	T. Cocca	Increased torque specified.
1582	F	N	2W28	Radio RF Cable Conn.	10-15-3	10-28-3	11-19-3	T. Cocca	Torque reduced on S/N 2 cable.
3367	F	C	-	Radio	1-24-4	1-27-4	5-13-4	J. Casani	Line transients exceeding specs.
3378	F	C	2RE1	Xponder-Coax. Conn.	2-5-4	2-5-4	8-18-4	T. Cocca	Not connected for some time.

MARINER P/FR SUMMARY

Page 11 of 112

Sheet 2 of 10

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight OK	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
719	F	C	-	Xpondr Mark I	2-10-4	2-10-4	3-12-4	T. Cocca	Threshold was-14 dhm (should be 150dbm).
1643	F	C	2RA1 2RA2	Receiver	2-8-4	2-8-4	3-12-4	T. Cocca	Threshold varied during vacuum.
1506	-	C	2EI	High Gain Antenna	2-10-4	-	3-3-4	J. Boreham	Half of split union found loose on cable.
3393	F	C	2PS1	High Voltage Pwr. Supplies	2-25-4	2-26-4	4-6-4	T. Cocca	Pwr. amps con't always turn on when R.F. pwr up signal is given.
717	F	C	2RA1	Rcvr. Subassy. Mixer Preamplifier	2-25-4	2-25-4	5-5-4	T. Cocca	No L.O. drive at TP1 (+) or TLM (+). Amp. gain 18db; S/B 44db.
3400	F	N	2A	Radio	2-24-4	2-27-4	3-12-4	T. Cocca	R.F. pwr-up sig. also Xfers pwr.amps & exciters; should Xfer only pwr.amp.
3401*	F	N	2A/9A	Radio Lower Ring Harness	2-24-4	2-27-4	7-27-4	J. Boreham	Subminax coax cable exhibits strong Pick-up when radiated with Agena tel
3402	F	N	2A	Ranging Code Generator	2-24-4	2-27-4	3-17-4	T. Cocca	Was not operating properly prevented checking ranging revr.
720	-	N	-	Xpndr. Mark I	2-28-4	2-28-4	3-19-4	T. Cocca	No-25 volt output from the exciter pwr. supply in either TX-1 or TX-2.
				MAR 11 1964					
721	-	C	2RE1	Mark I Exciter Subassy.	3-6-4	3-7-4	3-27-4	T. Cocca	X 30 multiplier pwr. output would not return to normal.
722	-	C	-	Mark I-Pwr. Supply Exciter	3-5-4	3-5-4	5-25-4	T. Cocca	Excessive 2.4KC ripple on exciter -15 volts during systems test.
3422	F	C	2PA1	RF Power Amplifiers	3-8-4	3-11-4	7-11-4	T. Cocca	RF pwr. amps. failed in 500 volt power-up mode in vacuum.
3423	F	N	2CC1	Radio Control Circuit	3-8-4	3-11-4	5-5-4	T. Cocca	System switched from RF power amp"B" to RF pwr.amp"A" upon issued Comm.
				MAR 23 1964					
3438	F	N	2A	Radio	3-13-4	3-14-4	4-17-4	T. Cocca	Radio unable to hold lock between gnd.Xsmttr. & flight recorder.
723	F	C	2RA1	Rcvr. Subassy.	3-14-4	3-16-4	6-22-4	T. Cocca	L.O. drive at TP1 (+), & TP2 (-1) dropped approx. 80% during temp.

MARINER P/FR SUMMARY

Page 12 of 112

Sheet 3 of 20

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight OK	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
2109	F		2CC1	VOIDED - SUPERSEDED BY P/FR 3423 Control Circuit	3-8-4	3-11-4	VOID	T. Cocca	Non-standard switching from R-F Amp. "B" to R-F Power Amp. "A".
2110	F		2PA1	VOIDED - SUPERSEDED BY P/FR 3422 RF Pwr. Amps.	3-8-4	3-11-4	VOID	T. Cocca	RF Power Amps. failed in 500 volt mode in vacuum.
3446	F	N	2A	Ring Clamp	3-28-4	4-1-4	7-1-4	J. Borgham	Split clamp interferes with center ring of super structure.
3452	F	N	2A 6A	Radio/Data Encoder	4-1-4	4-1-4	6-4-4	T. Cocca	Telemetry Ch. 302, exciter #2 volt. varies from 2 DN to A 10 DN.
3453*	F	N	4A 2A	Radio/Power	4-1-4	4-1-4	7-21-4	J. Casani	Radio came on in power-up mode power OSE was in RF down state.
724	F	C	2RE1	Exciter Subassy.	4-1-4	4-3-4	5-21-4	T. Cocca	Phase jitter in TX-2 exceeded 30° peak in A 20 CPS bandwidth.
5806	F	C	2EA6	Electronic Assy. 6	4-7-4	4-9-4	6-26-4	T. Cocca	RF power output failed momentarily during FA vibration.
5808	F	N	2RA1A2	Mixer Preamplifier	4-7-4	4-9-4	5-6-4	T. Cocca	Cap screw, which covers access hole came out during FA vibration.
5823	F	N	2RA2J6	Transponder Connector	4-5-4	4-6-4	5-21-4	T. Cocca	Gremar bulkhead connector insert was twisted and broken.
				APR 13 1964					
2107	F	N	2W11	R.F. Cable	4-5-4	4-6-4	4-28-4	T. Cocca	Conn. coupling nut separated from conn. body on S/N 7 cable.
5804	F	N	2DC1	High Gain Coupler	4-7-4	4-7-4	6-26-4	T. Cocca	R.F. Pwr. monitor voltage excessive voltage beyond safe operative limit.
5809	F	C	2RA1	Elec. Assy. 5 Receiver	4-15-4	4-16-4	6-5-4	T. Cocca	Intermittent local Osc. Sig.to mixer terminated during low freq. tests.
5812	F	C	2CS1	Circulator Switch	4-13-4	4-16-4	6-30-4	T. Cocca	RF Pwr. out from case 6 decreased to low level for less than 3 secs.
				APR 27 1964					
3489	F	N	-	Radio	4-24-4	4-27-4	5-20-4	T. Cocca	Voltage divider ntwks.result in the same DN values for -25V & -15 volts.
3488	F	N	-	Radio	4-24-4	4-27-4	6-5-4	T. Cocca	Chnl. 302 changes from a DN of 8 to 2 when xponder oper. in Aux.OSE mode

MARINER P/FR SUMMARY

Page 13 of 112

Sheet 4 of 10

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight Off	Called Non-called	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
725	-	C	2RE1	Exciter Subassy.	4-24-4	4-27-4	6-1-4	T. Cocca	No power output from xmitter No. 2; TX-2 reads 0 volts.
5676	-	C	-	Xponder Exciter X 30 Multiplier	4-27-4	4-27-4	6-26-4	T. Cocca	Exciter front end tuning was critically unstable low power output.
7701	F	N	2PA1	Power Amp. (R.F.)	4-27-4	4-26-4	6-22-4	A. Wiltsey	12.5 db. drop in cavity A RF Pwr.1 out 9 hrs after vacuum in chmbr.#12.
7702	F	C	2RE1	Xponder Exciter	5-5-4	5-7-4	6-26-4	T. Cocca	No. 2 side showed 90° of phase error during FA vibration.
5677	-	C	2RA2	Phase Detector	4-28-4	5-4-4	6-26-4	T. Cocca	Output (SPE Test) reads +5V. "S" curve only 3 V peak to peak.
				MAY 11 1964					
3503	F	N	2A	Telecommunications	5-5-4	5-6-4	7-11-4	T. Cocca	Measured AGC & Command Threshold approx. 3db above specified values.
699	-	N	2E2	Low Gain Antenna	4-27-4	4-30-4	5-21-4	S.Brunstein	During FA test, a tear was noticed in the fiberglass end cap..
3505	F	N	2E2	Omni Mast	5-1-4	5-9-4	7-2-4	W. Laymon T. Cocca	One corner of D 4600579 Thermal shield is bent.
6901	-	N	2PA2	TWT	5-13-4	5-13-4	6-11-4	A.Galbraith	Draws excessive helix and collector current.
6903	F	C	2PS2	Cavity Power Supply	5-12-4	5-13-4	6-5-4	F. Ott	Pwr. supply went out of regulation at 42 volts.
6927	F	C	2PS1	Cavity Power Amplifier	5-15-4	5-15-4	5-20-4	A. Wiltsey	Cavity anode volt. shorted to R.F. output probe at initial turn-on.
5680	-	C	-	Power Supply, Exciter	5-6-4	5-19-4	8-18-4	T. Cocca	TX-2 (-25)volt out. Reads -25v after +1.5 hrs "on" time under load.
5818	F	C	2RA2	Transponder	4-13-4	5-18-4	7-22-4	T. Cocca	Excessive phase error in TX #1 & 2. 15° peak DPE measured on both.
6928	-	C	2PA1	Power Amp. R-F	5-19-4	5-19-4	6-12-4	A. Wiltsey	Triode V251 failure occurred during tube selection test.
5678	-	C	-	Power Supply, Exciter	5-1-4	5-12-4	6-22-4	T. Cocca	TX-1 output power reading 600 mw; should be 680mw.
				MAY 25 1964					
6931	F	C	2W30 THRU 2W37	RF Cable Connectors	5-15-4	5-20-4	7-22-4	W. Tisdale	Defective gold plate on all contact pins resulted in temporary stoppage.

MARINER P/FR SUMMARY

Page 14 of 112

Sheet 5 of 10

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight Off	Called Non-called	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
6934	F	C	-	MC 3 Cavity Amplifier	5-22-4	5-23-4	7-21-4	A. Wiltsey	Cavity tuning erratic. Pwr. out increased and fell off.
				JUN 8 1964					
6041	F	C	2A	Control Unit	5-25-4	5-26-4	7-11-4	T. Cocca	Subsys. switches exciter & power, ampl. during pwr. transients.
6042	F	N	2PA1	Pwr. Amplifier - A	5-24-4	5-26-4	8-18-4	T. Cocca	Pwr. outputs rise to indicated 1.2W when either exciter in pwr.-up mode.
6043	F	C	2RE1	Exciters	5-22-4	5-28-4	7-9-4	T. Cocca	Exciter pwr. out S/B 500-600 MW. range telemetry indicates 1.2 watts.
6054	F	C	2PA1	RF Power Amplifier	6-2-4	6-3-4	7-21-4	A. Wiltsey	"B" power output tends to fluctuate with time.
7031	F	N	2RA2	Radio Receiver	6-3-4	6-3-4	7-11-4	T. Cocca	Flight receiver output appears to be loaded by command detector.
6057	F	C	2A	Radio	6-5-4	6-9-4	7-17-4	T. Cocca	When ranging rcvr. is tuned on DC-9, flight command loses lock.
7034	F	N	2E2	Low Gain Antenna	6-4-4	6-5-4	6-26-4	S.Brunstein	Person accidentally hit and bent a manopole with his head.
6935	-	N	2PA1	V-251 Tube	6-6-4	6-6-4	6-26-4	L. Darr	Grid nut stuck. Removal resulted in breakage of spanner pins.
7704	F	C	2RE1A1	Exciters Aux. OSC. and X4 Freq. Mult.	6-9-4	6-12-4	6-26-4	T. Cocca	Phase error of xmitter output went up to 90° at 140 CPS.
				JUN 22 1964					
6940	-	N	2PA2	Traveling Wave Tube	6-6-4	6-6-4	10-13-4	A. Galbraith	Phase error showed a low freq. component.
6941	-	N	2W35	RF Cable	6-17-4	6-18-4	7-6-4	A. Galbraith	Nut on TM conn. slipped down over connector shoulder during install.
7705	F	C	2RA2	Receiver Module	6-19-4	6-22-4	7-11-4	T. Cocca	3500 CPS spurious signal observed on ground receiver panalyzer.
6943	F	N	2PA1	Power Amplifier	6-9-4	6-9-4	7-27-4	A. Wiltsey	Water vapor entered cavity ampl. thru vent holes in heat sink.
3544	F	C	2CE1	Control Unit	6-22-4	6-22-4	8-18-4	T. Cocca	Switched power amplifiers at wrong times.

MARINER P/FR SUMMARY

Sheet 6 of 10

R = Returned by Project Engineer
X = Answered but not closed

Page 15 of 112

* Interface

REPORT NO.	Flight OTE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
6945	F	C	2PSI	Dual Cavity Power Supply	4-29-4	6-8-4	7-9-4	F. Ott	Inverter waveform displayed abnormality at low voltage inputs.
6947	F	C	2PSI	Dual Cavity Power Supply	5-7-4	6-8-4	7-9-4	F. Ott	Inverter waveform displayed abnormality at low voltage inputs.
5681	F	N	-	Xpdr. Mark I Power Supply Exciter	6-24-4	6-24-4	7-11-4	T. Cocca	Current from -25VDC supply No. 1 dropped to zero.
				JUL 9 1964					
6953	F	N	2PS1	Dual Cavity Pwr Supply	6-4-4	6-9-4	7-21-4	F. Ott	Ripple feedback into primary source is high when "A" is in low v. mode.
6954	F	N	2PS1	Dual Cavity Pwr. Supply	6-3-4	6-9-4	7-21-4	F. Ott	Ripple feedback into primary source is high when "A" is in low v. mode.
6957	F	C	2PS3	TWT Power Supply	6-25-4	6-25-4	8-18-4	F. Ott	Xistors Q-101 & 102 shorted out when +50 volt was applied at +55C.
6083	F	C	2CC1	Control Unit	7-3-4	7-7-4	7-22-4	T. Cocca	Radio switched exciters when only S/C activity was scan platform search
3558	F	N	2A	Power Amp -A (TWT)	7-7-4	7-7-4	7-27-4	T. Cocca	RF Power output and power amp. cathode current fluctuated.
6089	F	C	2A	Electronic Assembly	7-10-4	7-10-4	7-22-4	A. Galbraith	RF power output was 5db below normal.
6958	F	N	2PS1	Pwr. Amp. Power Supply	-	7-7-4	7-21-4	F. Ott	Loss of plate and filament voltages during vibration.
6951	F	C	2PA2	RF Communications	6-23-4	6-24-4	7-27-4	M. Alazard	During vibration, power output fluctuation of 0.3 db.
6962	F	C	2PS3	Power Supply	-	6-29-4	8-18-4	F. Ott	TWT RF power output dropped to zero after 5.5 hrs. at 25°C vacuum.
6961	F	C	2PS2	Power Supply	7-14-4	7-14-4	9-22-4	F. Ott	RF power did not come up to level in high voltage mode.
6967	F	N	2PS1	Dual Cavity Power Supply	5-29-4	7-14-4	7-22-4	F. Ott	At 75° the power supply losses regulation between 40 and 50 v. reg.
6970	F	C	2PS3	Power Supply	-	7-29-4	7-22-4	F. Ott	TWT RF power output dropped to zero after 31 hours in vacuum.
5682	F	N	-	Receiver	-	7-12-4	7-22-4	T. Cocca	Non-linearity in SPE versus frequency curve at 55°C.

MARINER P/FR SUMMARY

Sheet 7 of 10

R = Returned by Project Engineer
X = Answered but not closed

Page 16 of 112

* Interface

REPORT NO.	Flight OTE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
6968	F	N	2PS2	Power Supply	7-18-4	7-20-4	8-18-4	F. Ott	500v. applied to 35v. input causing 2PS2 to fail.
6969	F	C	2PS2	TWT	-	7-4-4	8-18-4	A. Galbraith	Upon TWT collector high voltage turn on, coll. current of 2DMA flowed.
6974	F	N	Case 6	Radio Communications	7-20-4	7-20-4	8-25-4	J. Drugan	Holed that hold case 6 to frame were damaged.
6095	F	C	2CC1	Control Unit	7-16-4	7-17-4	8-20-4	T. Cocca	Radio switched from exciter A to exciter B.
6109	-	N	2RE1	Exciter	7-26-4	7-26-4	8-25-4	T. Cocca	Exciter B periodically breaking into self-oscillation.
100524 V	-	C	1A 4600 550	Feed Assy. Antenna	2-18-4	2-18-4	3-4-4	J. Boreham	Gold flaking inside conductor.
				AUG 7 1964					
698	-	N	2E2	Low Gain Ant.	-	7-1-4	8-18-4	S. Brunstein	VSWR at 2106 MC/s is 1.77, exceeding spec. of 1.70.
6976	F	N	2PS2	Cavity Power	7-31-4	8-4-4	9-19-4	F. Ott	Capacitor found to be leaking.
7096	F	N	2	Radio	8-4-4	8-4-4	9-22-4	T. Cocca	Telemetry Chnl. 210 RCVR. L.O. drive varied up to 10DN from normal.
7710	-	C	2RA2	Receiver	-	8-5-4	10-1-4	T. Cocca	Excessive phase error & a random spike of 1.5° to 2° peak amp.
7709	-	C	2RA1 2RA2	Receiver	-	8-5-4	8-18-4	P. Gillespie	Temperature controllers read differently than thermocouples.
6980	F	C	2PA2	TWT	7-22-4	8-24-4	8-18-4	A. Galbraith	During vibration cycle, power output fluctuations of + 0.2db were noted.
6975	F	N	2PA1	Power Amp.	7-31-4	7-31-4	8-25-4	A. Wiltsey	Power supply inadvertently left in high power mode while going thru crit. atm.
8022	F	C	2	Radio	8-12-4	8-13-4	8-20-4	T. Cocca	Power amps. & exciters switched as a result of transients.
8026	F	C	2	Receiver	8-13-4	8-13-4	10-1-4	T. Cocca	Rcvr. local oscillator drive is varying over a significant power range.
8025	F	N	2	Receiver	8-13-4	8-13-4	9-19-4	T. Cocca	Rcvr. lost lock twice within 5 min.

MARINER P/FR SUMMARY

Sheet 8 of 10

R = Returned by Project Engineer
X = Answered but not closed

Page 17 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
6978	F	C	2PA1	Radio	8-10-4	8-10-4	10-5-4	W. Holmes	T.A. cavity power output dropped slowly.
				AUG 24 1964					
6982	F	N	2PA2	TWT	8-12-4	8-14-4	9-30-64	A. Galbraith	During vibration, power output fluctuated as much as 0.4 db.
6125	F	N	2E1	High Gain Ant.	8-22-4	8-22-4	6-1-4	J. Boreham	Corner edge of antenna damaged.
				SEPT 8 1964					
6905	F	C	2PS2 2PA2	RF Communucations	8-24-4	8-31-4	9-19-4	A. Galbraith	During vibration, helix current and power output failed.
6923	F	C	2PA2	TWT	8-28-4	8-28-4	10-2-4	A. Galbraith	During vibration, output went to zero and helix current to 2 ma.
10017	-	N	-	Radio	9-5-4	9-12-4	10-1-4	T. Cocca	Signal strength about 3 db. Below CDS printout.
6921	-	C	2PA2	TWT	9-1-4	9-15-4	10-1-4	A. Galbraith	Tube No.18 has an open filament.
				SEPT 21 1964					
7137	F	N	2W1	Hi-Gain Ant. Coax	9-16-4	9-28-4	10-26-4	J. Boreham	Teflon insulators recessed below bullet receptacle.
7138	F	N	2W2	Low Gain Ant. Coax Cable	9-24-4	9-28-4	10-9-4	J. Boreham	Center pin on straight coax connector loose.
6985	F	N	2PA1 2PS2	Cavity Amp. & Pwr. Supply	8-26-4	8-26-4	10-27-4	W. Holmes	Power loss to OSE caused by over-loaded circuit breaker.
7720	F	N	EA-6	Electronics Case VI	9-25-4	9-29-4	10-9-4	S. Brunstein	Arcing in RF power amplifier high voltages.
7722	F	C	2RE1A1	Aux. Osc. Module	9-7-4	9-29-4	10-9-4	S. Brunstein	Excessive phase shift when phase delay in exciter "B" mode.
7723	F	C	2RA1A5	X36 Multiplier	9-23-4	9-29-4	10-9-4	S. Brunstein	Xponder Rcvr. threshold degraded to -137 dbm @ + 55°C.
				OCT 12 1964					
5685	F	C	2RA1	AGC Det. & Ampl.	9-18-4	9-28-4	11-25-4	S. Brunstein	Command voltages did not permit proper switching

MARINER P/FR SUMMARY

Sheet 9 of 10

R = Returned by Project Engineer
X = Answered but not closed

Page 18 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
3578	F	N	2CC1	Control Unit	9-25-4	9-25-4	10-27-4	T. Cocca	Antenna drive indicates no pwr.output
				OCT 27 1964					
3599	F	C	2RA1 2RA2	Transponder	10-28-4	10-30-4	12-28-4	S. Brunstein	Unable to acquire S/C receiver lock.
				NOV 16 1964					
7178	F	N	2A	Radio	11-27-4	12-23-4	1-14-5	T. Cocca	Degradation noted in S/C received signal strength.
10113	F	N	2A	Traveling Wave Tube	12-28-4	12-28-4	8-12-5	J. Hunter	Readings of 53, 54, 55 on chnl. 300 telemetry. Normal is 51 or 52.
10115	F		2A	Radio	1-3-5	1-4-5	OPEN	J. Hunter	DSIF station reported 1 db decrease in Rcvr. carier power.
9310	F	N	2PS3	TWT Power Supply	1-13-5	1-13-5	10-13-5	T. Cocca	Failed when S/C primary power generated transients.
				FEB 1 1965					
10150	F	N	2A	Antenna	2-22-5	3-1-5	10-18-5	J Hunter	Variation on rcvd. signal levels on gnd and at S/C.
10158	F	N	2A	Radio	-	3-9-5	4-16-5	T. Cocca	Rcvrs. at Sta. 42 dropped lock momentarily, during events.
10161	F	N	2A	Radio	3-5-5	3-11-5	10-18-5	J Hunter T. Cocca	S/C rcvr. AGC increased at time of MT-5.
10162	F	C	2A	Radio	3-11-5	3-12-5	4-26-5	T. Cocca	Sta. 11 normal two-way lock could not be accomplished.
10163	F	C	2A	Radio	3-11-5	3-12-5	4-26-5	T. Cocca	DSIF 42 unable to lock-up with S/C.
10166	F	C	2A	Radio	3-16-5	3-18-5	7-21-5	J Hunter	DSIF 11 unable to lock-up S/C for two hours.
10173	F	N	2A	Simulation Switch	3-26-5	4-1-5	10-18-5	T. Cocca	Isolation provided in reverse direction less than 20 db.
9318	F		2A	Transponder	4-21-5	4-21-5	OPEN	T Cocca	Up link lock lost
10181	F	C	2A	Radio	5-14-5	5-14-5	7-21-5	P Parsons	DSIF 42 & 11 had lock drop-outs

MARINER P/FR SUMMARY

Sheet 10 of 10

R = Returned by Project Engineer
X = Answered but not closed

Page 19 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 2 - RADIO SUBSYSTEM					
10182	F	C	2A	Radio	5-13-5	5-13-5	10-27-5	D. Brown J. Hunter	DSIF #41 rcvr. dropped lock momentarily.
10184	F	N	2A	Radio	5-9-5	5-9-5	10-27-5	D. Brown J Hunter	1 db. drop in rcvd. signal level
10183	F	C	2A	Radio	5-13-5	5-13-5	10-14-5	J Hunter	DSIF 51 no indicate two way lock for 16 min 43 sec
8080	F	N	2PA?	TWT Power Amp	5-14-5	5-14-5	9-7-5	L. Pless	Output varies continually
10188	F	N	2A	Radio	5-24-5	5-25-5	9-9-5	T. Cocca	Decrease in ground received carrier power
9324	F	N	2A	Radio	7-9-65	7-13-5	11-11-5	T Cocca	Channels dropped between 2 and 4 data numbers
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 20 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 3 - COMMAND SUBSYSTEM					
1587	-	N	3A1	Life Test Command Detect	11-12-3	11-26-3	1-20-4	A. Spear	Output of detector input emitter follower non-linear.
1233	-	N	3A7	Transformer/Rectifier	1-6-4	1-6-4	1-14-4	A. Spear	Sub-Assemblies 3A1 & 3A3 reversed.
2781	F	N	3A5	Flight Com. Decoder	1-2-4	1-9-4	1-29-4	A. Spear	Low voltage power sub-system to isolation pulse switches.
2776*	F	C	3A/6A 16A	Command /DE / Tape	1-7-4	1-11-4	5-2-4	J. Casani	various systems malfunctions (Ref. 6A & 16A)
2778*	F	N	3A/7A	Command/Attitude Control	1-3-4	1-13-4	1-29-4	J. Casani	Signal & pin nomenclature reversed on 9W1J4.
1241	F	C	3A7A1	Command Flt. Sub #1	1-20-4	1-20-4	2-4-4	A. Spear	Flip Flop would not flip!
3359	F	C	3A	Flight Command	1-16-4	1-17-4	3-18-4	A. Spear	Difficulty maintaining phase lock.
100409 V	F	N	3A	Command 3A7 Decoder & Power Sup.	8-21-3	8-21-3	10-31-3	A. Spear	Output switch shorted (Motorola).
100410 V	F	N	3A	Command 3A7 Decoder & Power	8-21-3	8-21-3	10-31-3	A. Spear	No VDC output (Motorola).
100411 V	F	N	3A	3A6 Command Decoder	8-21-3	8-21-3	10-31-3	A. Spear	Connector Defect (Motorola).
100413 V	F	N	3A	Command 3A7 Decoder & Power Sup.	8-21-3	8-21-3	10-31-3	A. Spear	No VDC output diodes short (Motorola
100412 V	F	N	3A	3A2 Command Detector	8-24-3	8-24-3	12-31-3	A. Spear	Limitor output overloaded (Motorola)
100414 V	-	N	3A	Command Matched Filter Amp.	10-4-3	10-22-3	10-31-3	A. Spear	No output no sync lock indication.
100418 V	F	N	3A	Command Decoder and Power Supply	11-19-3	11-20-3	12-19-3	A. Spear	C R - 1 shorted.
1245	F	C	3A4 3A7	Command Decoder	2-13-4	2-13-4	3-12-4	A. Spear	Flip-flop failed to trigger.
1248	F	C	3A4 3A7	Command Decoder	2-12-4	2-12-4	3-19-4	A. Spear	Decoder switch will not close.
3024*	F/O	N	3A4 103RC1	Command & OSE	2-29-4	3-2-4	7-7-4	A. Spear T. Cocca	False locks and bit sync. Yo-yoing are noted.
				MAR 11 1964					

MARINER P/FR SUMMARY

Sheet 2 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 21 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 3 - COMMAND SUBSYSTEM					
1250*	F/O	N	3A/OSE	Flight Command PTM OSE & Flight Subsys.	3-8-4	3-9-4	4-6-4	W. Earl	Command test console set up to send commands by unauthorized personned.
100420 V	F	N	3A2	Detector Assy. VCO	3-13-4	3-9-4	6-26-4	A. Spear	Excessive drift and instability of center frequency.
100421 V	F	N	3A2	1:10:10 Xformer Detector Assy.	2-13-4	3-9-4	4-28-4	A. Spear	Stycast stuck to adhesive and xformer case was exposed.
1247	F	N	3A7	TR & Decoder Subassy.	3-12-4	3-20-4	4-17-4	A. Spear	Subassy. 3A7 frame badly scratched.
				MAR 23 1964					
1237	F/O	N	-	Command TA & FA Test	4-22-4	4-22-4	5-27-4	A. Spear	MC-4 SN-5 Flt. Sub. fell out of lock at high temp.
				APR 27 1964					
100422 V	F	N	3A	SRT Flip/Flop	4-27-4	5-1-4	5-23-4	A. Spear	Q1 remained in saturation & module wouldn't respond to trigger.
				MAY 11 1964					
3518	F	N	-	Flight Command	5-25-4	5-25-4	7-27-4	T. Cocca	Command Decoder failed to lock up within 6 minutes.
				JUN 8 1964					
6050	F	N	3A	Flight Command	5-23-4	5-26-4	8-18-4	A. Spear	Occasionally has momentary loss of lock DC-25'2,DC-26's & MT-7's iss.
				JUL 9 1964					
1246	F	N	3A7	Command TR	7-6-4	-	7-15-4	A. Spear	S/C 2.4KC load current was abnormally high.
3517	F	N	3A7	Command Decoder	7-6-4	7-6-4	7-22-4	Weaver A. Spear	Loose connectors could have caused a short.
				AUG 7 1964					
3545*	F	N	2A/OSE	Flight Command	6-18-4	6-18-4	8-18-4	A. Spear	Radio Grd. to air lock at-135 DBM became erratic in mode 4.
				SEPT 8 1964					

MARINER P/FR SUMMARY

Sheet 3 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 22 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 3 - COMMAND SUBSYSTEM					
				FEB 1 1965					
10159	F	N	3A	Command	2-11-5	3-11-5	10-27-5	T. Spear	Subsystem dropped lock during normalization of TWV.
10114	F		3A6A2	Isolated Pulse Switch	10-12-5	11-10-5	OPEN	G. Crawford	IP switch #8 (DC-3) intermittant
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 23 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 4 - POWER					
2317	F	N	4A8	Power Regulator	10-31-4	11-26-4	12-23-3	R. Rubin	Booster output accidentally connected to Q29.
2318	F	C	4A8	Power Regulator	10-31-3	11-26-3	12-23-3	R. Rubin	Transistor Q1 shorted; Fuse F1 failed.
2319	F	N	4A8	Power Regulator	10-31-3	11-26-3	12-23-3	R. Rubin	Q24 open; Q20 shorted.
2511	F	N	4A14	Power-Battery	12-20-3	12-28-3	2-7-4	W. Long	Cell #1 low in voltage output.
2315	-	N	Case VIII	Power Regulator	12-6-3	-	1-18-4	R. Spencer	R19 not connected to Pot R91 to ground.
2775	F	N	4A11	Power Distribution	1-2-4	1-9-4	1-20-4	K. Dawson	Relay time race between K1 & K2 relays.
2777	F	N	4A8	Booster Regulator	1-6-4	1-11-4	2-18-4	L. Packard	Transient occurred.
3363	F	N	4A8	Power Regulator	1-21-4	1-22-4	2-18-4	K. Dawson	Booster regulator output shorted.
3375	F	C	4A17	400 CPS Inverter	1-20-4 1-27-4	2-3-4	5-23-4	J. Casani K. Dawson	Inverter lost sync.
3376	F	N	4A11	Pwr. Distribution	1-28-4	2-3-4	2-26-4	K. Dawson	Cruise Sci. turned off inadvertently.
3377	F	N	4A15 4A16	Z, 4KC Cruise Inv.	1-27-4 1-30-4	2-3-4	5-5-4	K. Dawson J. Casani	Inverter lost sync.
3044	-	N	4A	Solar Vane Actuator	2-18-4	2-19-4	3-21-4	T. Donlin	Excursion of vane beyond mech. step during vibration.
3078	-	N	4A	Solar Vane Assembly	2-18-4	2-20-4	3-3-4	D. Hess	Vibration caused damage to panel.
3043	-	C	4A	Solar Vane Actuator	2-18-4	2-19-4	4-14-4	T. Donlin	2-56 screws came out during vibration.
1743	F	N	4A8	Power Regulator	2-27-4	3-3-4	5-20-4	W. Schubert	Magnesium case of kinetic SW. fractured during TA shake.
101118 V	F	C	4A8	Booster Regulator	3-7-4	3-9-4	5-15-4	G. Cleven	No output voltage when unit was reset.
101119 V	-	C	4A8	Booster Regulator	3-2-4	3-9-4	6-9-4	G. Cleven	Output voltage of BR #2 out of specified range.
101120 V	-	C	4A8	Booster Regulator	3-9-4	3-9-4	5-15-4	G. Cleven	No T/M output voltage when switching from BR #2 to BR #1.

MARINER P/FR SUMMARY

Sheet 2 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 24 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 4 - POWER					
101121 V	-	C	4A8	Booster Regulator	2-28-4	3-10-4	5-15-4	G. Cleven	During load regulation, BR #2 excessive oscillation observed.
101122 V	-	C	4A8	Booster Regulator	2-29-4	3-10-4	5-15-4	G. Cleven	20 volt regulators of BR #1 and BR #2 failed.
1745	F	C	4A13	Battery Charger	3-18-4	3-19-4	5-20-4	W. Shubert	Failed to switch to boost mode when primary sys. lowered to 30 v.
				MAR 23 1964					
3436*	F	N	4A/6A	Power/Data Encoder	3-17-4	3-18-4	7-22-4	W. Apel	Deck skipping & turning the battery charger directly related.
3453*	F	N	2A/4A	Radio/Power	4-1-4	4-1-4	7-21-4	J. Casani	Radio came on in Power-up mode. Power OSE was in R-F down state.
101142 V	F	N	4A8	Power Regulator	3-31-4	4-2-4	6-4-4	G. Cleven	The unit could not reset. "Failure Mode" circuit malfuntioned.
101497 V	-	C	4A8	Power Regulator	3-22-4	3-25-4	7-2-4	W. Shubert	Type Z plug-in was connected differentially to Q3, CE, with pwr off.
1748	F	C	4A14	Battery	3-24-4	4-9-4	7-22-4	W. Long	Cell No. 3 lost voltage. No short or evidence of electrolyte leakage.
				APR 13 1964					
6003*	F	N	4A8	Power Regulator	4-22-4	4-23-4	6-4-4	G. Cleven	Harness branches to upper ring harness conn. 9W1J80 & 9W1J82 are too short.
6009*	F	N	4A13	Battery Charger	4-27-4	4-27-4	7-6-4	K. Dawson	Pri. sys voltage maintained 17V by batt. charger in boost mode.
5671	F	N	4A8	Power Regulator	4-6-4	4-8-4	7-2-4	W. Carroll G. Cleven	Adherence of temp. control paint created surface cannot be assured.
6015	F	C	4A1&3 4A5&7	Solar Panels	5-8-4	5-11-4	7-21-4	J. Goldsmith	Pnls. have high magnetic fields. 3 of 4 are almost 25 gamma each.
100491V	F	N	4A1&3 4A5,7	Solar Panel	4-25-4	5-28-4	5-26-4	J. Goldsmith	Panel was vibrated using Ranger spec.
3514*	F	C	4A5	Solar Panel	5-23-4	5-25-4	6-30-4	R. Moore	Corner of pnl. spar bent in approx. 6.25 inch x 0.50 long.
1751	F	C	4A8	Power Regulator	3-8-4	5-26-4	7-15-4	W. Shubert	Output volt. oscillated at 60 CPS with A 1 volt P-P amplitude.
				JUN 8 1964					

MARINER P/FR SUMMARY

Sheet 3 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 25 of 112

* Interface

REPORT NO.	Flight OSE	Called Non-called	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 4 - POWER					
3524	F	C	4A14	Battery	5-27-4	5-27-4	7-6-4	W. Long	Cell #16 shorted, went to zero volts All other cells read 1.60 to 161V.
6053*	F	N	4A 6A/5A	Power/CC&S/Data Encoder	5-27-4	5-27-4	7-6-4	D. Ross	CC&S L-2 & L-3 command were auto. reset for no apparent reason.
6039	F	N	4A1-3 4A5-7	S/P Simulator Assemblies	5-23-4	5-26-4	7-6-4	L. Packard	Pwr. Sys. not able to operate out of sharing when gyro's were on.
7038	F	N	4A	Power	6-5-4	6-8-4	7-6-4	L. Packard	Load sharing occurred when AC10-B was set to turn gyros on.
7035	F	N	4A11	Power Distribution	6-5-4	6-8-4	6-30-4	L. Packard	At pwr. turn-on, cruise science pwr. remained off. This is unusual.
				JUN 22 1964					
3538	F	N	4A11	Distribution Subassy.	6-12-4	6-13-4	7-6-4	K. Dawson	Relay in module 4A11 remains in de-energized state.
1755*	F	N	4A12 4A17	Power Sync. - 400 cps. 1Ø inverter	-	6-26-4	9-4-4	H. Weaver	Subassemblies 4A12 and 4A17 were dented.
3549	F	C	4A1 4A5	Solar Panels	6-25-4	6-25-4	7-18-4	J. Goldsmith	In raising solar panels from horiz. to vert, chips & foreign matter fell out.
3555	F	C	4A7	Solar Panel	6-29-4	6-29-4	7-18-4	J. Goldsmith	One cell cracked at hinge line during removal from S/C.
1757	F	N	4	Power	6-29-4	6-30-4	8-21-4	W. Shubert	Case I S/N 05 subjected to temp. of -30°C for approx. 2 hours.
1758	F	N	4	Power	6-25-4	6-30-4	8-21-4	W. Shubert	Case I S/N 05 05 subjected to approx. 21 G's at 1.9K cps for 3 sec.
				JUL 9 1964					
100486V	F	C	4A15/16	Case I 2.4K cps Inverter	6-29-4	7-10-4	8-28-4	W. Shubert	T/M voltage, T/M current, and sys. current readings were low.
6099	F	N	4A	Power	7-18-4	7-18-4	8-19-4	K. Dawson	Power went into load sharing when gyros came on.
100488V	F	N	CaseI	Power	7-20-4	7-21-4	8-18-4	G. Cleven	Incorrect length screws were used.
3567	F	N	4A7	Solar Panel	7-22-4	7-22-4	8-28-4	J. Goldsmith	Cell cracked and slight delamination of webbing.
6710*	F	C	6/4	Data Encoder / Power	7-29-4	7-31-4	8-19-4	J. Casani	D/E has a 1.6K collector resistor to +6 volts.

MARINER P/FR SUMMARY

Sheet 4 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 26 of 112

* Interface

REPORT NO.	Flight OSE	Called Non-called	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 4 - POWER					
3471	-	C	-	Solar Panels	4-9-4	4-9-4	7-18-4	J. Goldsmith	Rivet chips found on bus below solar pnls. after vibration & acoustics.
				AUG 7 1964					
1759	-	C	4A8	Power Regulator	7-30-4	8-5-4	8-13-4	W. Schubert	Under UV light, brown discolorations on transistors Q6, Q18, Q19.
1760	F	C	4A8	Power Regulator	7-31-4	8-3-4	8-13-4	W. Schubert	Under UV light, brown discolorations noted on transistors Q6 & Q18.
7088	F	N	1A1	Solar Panels	7-30-4	7-30-4	8-18-4	J. Goldsmith R. Moore	Panels would not accept molycoated hinge bolts.
7090	F	N	4A1	Solar Panels	7-30-4	7-30-4	8-20-4	J. Goldsmith R. Moore	Hinge would not accept spring shaft or molycoated bolts.
7092	F	N	4A14	Battery Fuse	8-3-4	8-4-4	8-26-4	W. Long	Blown fuse in battery monitor line in the battery.
8016*	F	N	4A13	Battery Charger	8-5-4	8-5-4	8-31-4	K. Dawson	D/E unable to maintain sync when battery charge current >250 MA.
8019	F	N	4A11	Module-Power Dist.	8-7-4	8-7-4	8-18-4	C. Cleven	Module for case I have bad inserts.
				AUG 24 1964					
8073*	F	N	S/C-74 4A-9W	A/C-Power-Cabling	10-3-4	10-3-4	10-8-4	J. Casani	Two wires in sun shutter left dangling and uncovered.
				OCT 12 1964					
3582	F	N	4A14	Solid State Fuse	10-1-4	10-1-4	10-22-4	W. Long	Pwr. OSE unable to monitor battery terminal voltage.
6140	F	N	-	Kinetic Switch	10-12-4	10-12-4	10-22-4	K. Dawson	Internal/External pwr. contacts measured excess contact resistance.
7156*	F	N	4A/OSE	Power	10-12-4	10-12-4	10-28-4	L. Packard	4A15 tolerance detector light came on twice.
				OCT 27 1964					
				FEB 1 1965					
10117	F		4A	Power Battery	2-22-5	2-22-5	OPEN	K. Dawson	Battery voltage increased 0.1 volt charger turned off.

MARINER P/FR SUMMARY

Sheet 5 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 27 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 4 - POWER					
10174	F	N	4A	Power	4-1-5	4-1-5	5-3-5	K. Dawson	DC Bus Voltage dropped.
8081	F	N	4A8	Booster Reg. Xfer	5-5-5 5-13-5	5-13-5	9-18-5	K. Dawson	Produced a severe transient.
7825	F	N		Case I and VIII	6-5-5	6-5-5	7-21-5	J. Stoker	During vac-temp life test. temp went to +250° F.
7824	F	N	4A18	400 Cycle - 3 Phase	7-16-5	7-21-5	9-8-5	W. Shubert	C5 shorted and lifted from mount
9325	F	N	EA1	Case I	7-20-5	7-26-5	11-15-5	W. Shubert	TM channels read low due to addition of fuse in ckt.
7831	F			Case VIII	8-24-5	8-23-5	OPEN	W. Shubert	20V regulator in BR #2 shorted.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 28 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 5 - CC&S (CENTRAL COMPUTER & SEQUENCER)					
2347	F	N	9W5	CC&S Case Harness	11-20-3	11-20-3	12-20-3	S. Lingon	Connector does not reach 9W1J71.
958	-	N	5A	CC&S Launch Counter	11-20-3	1-14-4	1-23-4	S. Lingon	Magnetic Divide by 1000 Faulty operation
959	-	C	5A2	CC&S Launch Counter	11-28-3	1-14-4	2-3-4	S. Lingon	Magnetic divide by 60 faulty operation
960	-	N	5A6	Dur. Out.	12-9-3	1-14-4	1-23-4	S. Lingon	Address register circuit faulty operation
961	-	C	5A4	CC&S Maneuver Clock	12-11-3	1-13-4	1-18-4	S. Lingon	Midcourse output com. faulty in first tests.
962	-	N	5A5	CC&S Maneuver Duration	12-13-3	1-14-4	1-18-4	S. Lingon	Magnetic core driver faulty operation.
963	-	N	5A3	CC&S End Counter	12-18-3	1-14-4	1-18-4	S. Lingon	"PPI" indication with relay K4 did not occur.
964	-	C	5A3	CC&S End Counter	12-31-3	1-14-4	2-3-4	S. Lingon	Relay AC32A failed to activate.
1000	-	N	5A1	CC&S Central Clock	12-14-3	1-14-4	1-23-4	S. Lingon	38.4kc output circuit faulty.
2773	F	N	5A	CC&S	12-31-3	1-9-4	2-6-4	N. Herman	MT 7, MT 8 have noise on signals.
3358	F	N	5A	CC&S	1-16-4	1-17-4	2-6-4	N. Herman	Timer appears inverted; counting continous.
966	-	C	5A4	Maneuver Clock	1-10-4	1-16-4	2-13-4	S. Lingon	Output commands failed to occur.
967	-	N	5A5	Maneuver Duration	1-13-4	1-16-4	3-13-4	S. Lingon	Pitch stop command not generated.
968	-	C	5A3	End Counter	1-13-4	1-16-4	4-10-4	S. Lingon	TM 36A command did not occur.
969	-	N	5A8	Transformer-Rectifier	1-13-4	1-16-4	4-10-4	S. Lingon	The AC32A command did not occur.
971	-	C	5A1 5A8	Cent. Clock & Launch Counter	1-2-4	1-22-4	2-10-4	S. Lingon	Divide 60 ckts. divides by 80.
949	F	C	5A3	CC&S End Maneuver	10-5-3	10-9-3	10-17-3	S. Lingon	SC 23A command in counter occurred earlier than normal.
957	F	N	5A2	CC&S Launch Counter	10-5-3	10-9-3	10-25-3	S. Lingon	"clear release" command came later than normal.

MARINER P/FR SUMMARY

Sheet 2 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 29 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34	SUBSYSTEM	5 - CC&S (CENTRAL COMPUTER & SEQUENCER)							
948	F	C	5A5	CC&S Maneuver Duration	9-24-3	10-1-3	10-10-3	S. Lingon	Broken cores in velocity register.
956	F	C	5A6	CC&S Add. and Man. Duration Output	9-26-3	10-9-3	10-17-3	S. Lingon	Xistor Q5-2 and diode CR 51-2 failed during bench test.
970	-	C	5A5	CC&S Maneuver Duration	1-22-4	2-10-4	4-6-4	S. Lingon	Replaced magnetic core assembly.
972	-	N	5A5	CC&S Maneuver Duration	1-22-4	2-10-4	3-13-4	S. Lingon	"Exclusive Or" ckt. didn't function properly.
973	-	N	5A5	CC&S Maneuver Duration	1-27-4	2-10-4	3-13-4	S. Lingon	Phase splitter did not operate.
998	-	N	5A3	End Counter	1-28-4	2-10-4	3-13-4	S. Lingon	No accept "update" pulses.
999	-	N	5A2	Launch Counter	-	2-10-4	3-13-4	S. Lingon	Mag. counter couldn't inhibit.
3121	-	N	5A1	Central Clock	1-24-4	2-10-4	3-13-4	S. Lingon	Nick in cannon "D" connector.
3122	-	N	5A7	Input Decoder	1-31-4	2-10-4	3-13-4	S. Lingon	Unit knocked off insp. table.
3123	-	N	5A2	Launch Counter	1-29-4	2-10-4	3-13-4	S. Lingon	Relay 5A2K2 no operate.
3124	-	N	5A5	Maneuver Duration	2-3-4	2-10-4	3-13-4	S. Lingon	Xistor emitter shorted.
3125	-	N	5A7	Input Decoder	2-3-4	2-10-4	3-13-4	S. Lingon	"Polarity Set" lamp no go off at proper time.
3133	-	N	5A6	Add. reg. & Man. dur.	2-11-4	2-12-4	4-6-4	S. Lingon	"Roll select" lamp did not light.
3131	-	N	5A6	Add. reg. & Man. Dur.	-	2-17-4	4-10-4	E. Greenberg	Setting of relay AC10B failed to generate an event indication.
3403	F	N	5A3	Master Timer	2-24-4	2-28-4	4-17-4	N. Herman	Operator reported extra counts in end counter.
3404	F	N	5A	CC&S	2-25-4	2-28-4	6-8-4	J. Casani	MT-1 commands were not received by A/C system; CC&S fast counting.
				MAR 11 1964					
811	-	N	5A7	Input Decoder	2-22-4	3-5-4	3-21-4	E. Greenberg	Intermittent failure occurred in the module.

MARINER P/FR SUMMARY

Sheet 3 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 30 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34	SUBSYSTEM	5 - CC&S (CENTRAL COMPUTER & SEQUENCER)							
3138		N	5A8	Xformer - Rectifier	3-3-4	3-5-4	3-30-4	S. Lingon	Relay 5A8K1 would not operate during voltage margin test.
3139		N	5A6	Add. Reg. & Man. Dur. Out	-	3-9-4	3-30-4	S. Lingon	Relay 5A6K7 did not operate during voltage margin test.
3735	-	C	5A8	Xformer - Rectifier	2-20-4	3-5-4	6-4-4	S. Lingon	"K1 Set" & "K6 Set" lamps did not light at proper time.
3736	-	C	5A5	Maneuver Duration	3-9-4	3-13-4	5-7-4	S. Lingon	Unit malfunctioned by not generating pitch, roll and velocity.
3431	F	N	5A	CC & S	3-11-4	3-13-4	6-8-4	N. Herman	MT-4 issued which resulted in an L-1, L-2, TM 36A, Ac31A, & Ac34A.
3432	F	N	5A	CC & S	3-11-4	3-13-4	4-10-4	N. Herman	CC & S issued a CY-1 early during chamber sys. test #1.
				MAR 23 1964					
3440	F	N	5A	Relay Hold T/R	3-25-4	3-25-4	4-10-4	N. Herman	Module accidentally dropped by Q. A. Inspection at SAF.
3738	-	C	5A4	Maneuver Clock	3-16-4	3-18-4	6-4-4	S. Lingon	TM2B relay (5A4K2) would not actuate
3739	-	N	5A2	Launch Counter	3-18-4	3-27-4	5-11-4	S. Lingon	"Clear release" relay did not actuate after release of "inhibit".
3740	-	N	5A3	End Counter	3-14-4	4-6-4	4-17-4	E. Greenberg	Counts picked up in master timer during operation.
				APR 13 1964					
3741	-	C	5A4	Maneuver Clock	3-23-4	4-8-4	4-17-4	S. Lingon	"M/C + 110" Command did not occur.
3464	-	C	5A9	Relay Hold T/R	4-6-4	4-7-4	6-10-4	N. Herman	Unsuccessful attempt was made to xfer hold func. from OSE to S/C Conn
3742		N	5A	CC & S	4-13-4	4-21-4	5-7-4	E. Greenberg	CC & S events were erroneously given during F/A vibration.
3490*	F	N	5A/OSE	CC & S	[illegible]	[illegible]	[illegible]	N. Herman	Two counts picked up on OSE pre-set counter while inhibit.
				MAY 11 1964					
6053*	F	N	4A 6A/5A	Power/CC & S/Data Ecdr.	5-27-4	5-27-4	7-6-4	D. Ross	CC&S L-2 & L-3 commands were auto. reset for no apparent reason.

MARINER P/FR SUMMARY

Sheet 4 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 31 of 112

* Interface

REPORT NO.	Flight OTE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 5 - CC&S (CENTRAL COMPUTER & SEQUENCER)					
3744	-	N	5A5	Maneuver Duration	5-28-4	6-2-4	6-30-4	N. Herman	Diode CR46-1, on FD 1184 was noted to be cracked at one end.
6040	F	N	5A5	Maneuver Duration	5-23-4	5-27-4	6-25-4	N. Herman	A 1325 Sec. roll turn was purposely commanded. Motor burn did not occur.
7036	F	N	5A	CC & S	6-5-4	6-8-4	7-6-4	D. Ross	After DC-11, all CC&S commands were reset, but launch counter counts
3743	-	C	5A1 5A3	Central Clock and End Counter	5-15-4	5-28-4	6-22-4	N. Herman	Opening of two wires in 5A1 & the loss of CC & S timing beyond 25 PPS.
				JUN 22 1964					
6108		N	5	Clear Release	7-26-4	7-26-4	8-7-4	N. Herman	CC&S failed to indicate a clear release event.
				AUG 7 1964					
1354	-	C	9W5	CC & S Harness	3-19-4	3-19-4	5-5-4	N. Herman	Harness cannon conn. 5A4P2-4 shows intermittent per CT tester.
				AUG 24 1964					
				OCT 12 1964					
3581	F	N	5A	CC&S	9-28-4	10-1-4	10-22-4	N. Herman	CC&S inhibited at 59989 (10 sec. prior to L-3)
10212	F	N	5A	CC&S	9-3-4	10-16-4	10-25-4	S. Lingon	CC&S went into fast count; issuing many commands.
				OCT 27 1964					
3395	F	N	5A9	Relay Hold T/R	10-16-4	10-20-4	10-30-4	N. Herman	Pin 51 shorted to ground thru milliammeter.
				NOV 16 1964					
3745	F	C	5A3	End Counter	Not known	11-23-4	12-7-4	S. Lingon	Commands failed to occur. Broken wire found.
				DEC 21 1964					

MARINER P/FR SUMMARY

Sheet 5 of 5

R = Returned by Project Engineer
X = Answered but not closed

Page 32 of 112

* Interface

REPORT NO.	Flight OTE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 5 - CC&S (CENTRAL COMPUTER & SEQUENCER)					
9313	F	N	5A	CC & S Maneuver	1-15-5	1-19-5	2-12-5	N. Herman	CC & S failed to end motor burn.
				FEB 1 1965					
10119	F	N	5A	CC & S	4-21-5	4-21-5	5-10-5	D. Lord	Bit sync decreasing
10199	F	N	5A	CC & S	7-15-5	7-28-5	9-18-5	N Herman	Two events observed in data. Should be a single event.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 33 of 112

* Interface

REPORT NO.	Flight OSE	Called Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 6 - DATA ENCODER					
7062	F	N	16A1	Videc Storage System	6-25-4	6-29-4	8-20-4	W. Apel	Pressure transducer indicates drop in pressure.
				MAR 23 1964					
625	F	C	6A13	D/E Power Supply	3-10-4	3-13-4	4-20-4	W. Apel	100 deck & subcom. analog chls. exhibited a compression of rcvd.DN.
3436*	F	N	6A/4A	Power/Data Encoder	3-17-4	3-18-4	7-22-4	W. Apel	Deck skipping & turning the battery charger directly related.
				APR 13 1964					
3472*	F	N	6A/20A	Scan Subsystem Mode 3 Command	2-26-4	4-9-4	5-13-4	J. Casani	Scan sys. cannot search because it is at wrong end of travel.
623	F	C	6A7	DKS.100,110, Comm. Cont.	4-20-4	4-21-4	5-23-4	W. Apel	Frequent loss of commutative sync. during plane 3 FA shake.
3480	F	N	6A	Data Encoder	4-22-4	4-22-4	7-18-4	W. Apel	Counter filled & low rate commutator decks dropped sync.
				APR 27 1964					
3483	F	N	6A	Data Encoder	4-22-4	4-22-4	7-11-4	W. Apel	When A/C gyro's turned off, D/E changed from mode 2 to mode 1.
624	F	N	6A10	400 & 410 Commutator Decks	3-30-4	4-23-4	5-6-4	W. Apel	Subassy. fell approx. 30" from white room assy. station to floor.
3492*	F	N	-	Data Encoder Pyrotechnics	4-24-4	4-24-4	6-10-4	W. Apel	During encounter mode, 2 events were recorded; tape recorder no run.
3497	F	N	-	Data Encoder	5-2-4	5-2-4	7-22-4	W. Apel	D/E lost sync. when gyro power turned on and off.
				MAY 11 1964					
3016	F	N	6A11	Decks 420 & 430	5-11-4	5-12-4	7-2-4	W. Apel	Kelvin resistor 6A11A1R8 had changed value.
607	-	C	6A8	Deck 210, 220, Kelvin Resis.	11-1-3	11-12-3	12-19-3	W. Apel	RV of Ch 217 consistently low.
2776*	F	C	3A/6A 16A	Command, DE, Tape	1-7-4	1-11-4	5-2-4	J. Casani	Various systems malfunctions (See 3A & 16A).
601	-	C	6A13	D/E Power Supply	8-21-3	8-22-3	9-27-3	W. Apel	Voltage polarity reversal stress on C5.

MARINER P/FR SUMMARY

Sheet 2 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 34 of 112

* Interface

REPORT NO.	Flight OSE	Called Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 6 - DATA ENCODER					
602	-	C	6A12	D/E Low Level Amp.	8-21-3	8-22-3	9-27-3	W. Apel	Transformer DOT-19 (T6) -6A12A1 wired wrong.
603	-	N	6A5A2	D/E Event Counters	9-25-3	9-30-3	10-25-3	W. Apel	F/F stayed in reset state.
615	F	N	6A8	Decks 210 & 220	1-20-4	1-28-4	2-7-4	W. Apel	Analog chls. gave erroneous readings.
616	F	C	6A13	Power Supply	2-3-4	2-4-4	3-10-4	W. Apel	Analog chls. exhibited offsets.
3010	F	N	6A	Data Encoder	2-25-4	2-25-4	6-5-4	W. Apel	Varying D.C. offset on the low level & Temp. channels.
617	F	N	6A	Data Encoder	2-24-4	2-28-4	3-10-4	E. Sheldon	A F' test tape was run by mistake. TA tape ran after this error.
619	F	N	6A12	Low Level Amp.	2-24-4	2-24-4	3-19-4	W. Apel	Low level channels exhibited an intermittent offset.
620	F	N	6A	Data Encoder	Feb.'64	3-3-4	7-18-4	W. Apel	Frequent event reset glitches have been observed.
621	F	N	6A	Data Encoder	Feb.'64	3-3-4	7-27-4	W. Apel	Skipping of the medium and/or slow decks of D/E.
3397	F	N	6A	VOID Data Encoder	2-24-4	2-27-4	VOID 3-12-4	W. Apel	Occasionally skips a medium deck position on its commutator.
3398	F	N	6A	VOID Data Encoder	2-24-4	2-27-4	VOID 3-12-4	W. Apel	Agena telemetry causes erroneous readings on D/E telemetry.
3507*	F/O	N	-	Data Encoder or GTS	5-15-4	5-15-4	7-27-4	W. Apel	20 secs. after pip's, shut off rates 2,3, & 4 lost sync.
				MAY 25 1964					
6053*	F	N	4A 6A/5A	Data Encoder Power/CC & S	5-27-4	5-27-4	7-6-4	D. Ross	reset for no apparent reason------ CC&S L-2 & L-3 commands were auto.
3523	F	C	-	Signal Conditioner	5-27-4	5-27-4	7-7-4	W. Apel	Chnls. indicate out of tolerance volt. on chnls. 300, 301 & 302.
3526	F	C		D/E/Data Encoder	5-26-4	5-26-4	7-2-4	J. Casani	GTS freq. loses RN sync. & PLL. Bit sync. sometimes shifts.
6048	F	C	6A	Data Encoder	5-25-4	5-26-4	7-10-4	J. Casani	Rec. & phase resets almost every-time radio pwr. amp. are sw. using s 90-7.
6052	F	N	6A	Data Encoder	5-25-4	5-26-4	7-27-4	W. Apel	Loss of medium & low deck sync. when coost mode circuitry turned on or off.

MARINER P/FR SUMMARY

Sheet 3 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 35 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 6 - DATA ENCODER					
7040	F	C	6A	Data Encoder	6-5-4	6-8-4	7-10-4	J. Casani	Experienced filling of event counter and half-phase resets.
6702	F	C	6A9	DK 200,300, Agena Amp.	5-26-4	6-14-4	7-7-4	J. Casani H. Weaver	Investigation of telemetry chnls. revealed a shorted switch.
6064	F	N	6A	Data Encoder	6-13-4	6-15-4	8-18-4	W. Apel	Blockhouse launch complex equipt. was unable to home the data encoder.
				JUN 22 1964					
6085	F	C	6A	Data Encoder	7-3-4	7-7-4	7-14-4	J. Casani	Turning off TV Collimator gave half phase reset to D/E event register.
6710*	F	C	6/4	Data Encoder / Power	7-29-4	7-31-4	8-19-4	J. Casani	D/E has a 1.6 K collector resistor to 6 volts.
6112*	F	N	20/6	DAS/Data Encoder	7-29-4	7-29-4	10-10-4	W. Schneider	Science Data came with the PN sequence one bit early.
				AUG 7 1964					
1534*	-	C	10A	Chamber Pressure Xducer	3-20-4	3-20-4	4-30-4	G.McCreight	Calibration of Xducer had shifted upscale approx. 45 PSIA.
1537*	-	N	10A	Oxidizer Pressure Transducer	4-23-4	5-23-4	7-2-4	P.McCreight	Start cartr. pressure xducer indicated a pressure loss of approx. 1.0 PSIA/day.
792*	F	C	-	Post Injection Propul. Sys. Xducer, N2 Reservoir	4-11-4	4-14-4	6-17-4	G.McCreight	Xducer output fluctuated from expected value. A rattle was detected.
6044*	F	N	11TT3	EA3 Chassis Xducer Assembly	5-22-4	5-26-4	7-2-4	G.McCreight	Bay 3 temp. tele. chnl.gives initial temp.reading of 118.8°F.(others 75°F)
521*	-	C	26A1	ION Chamber Temperature Transducer	12-23-3	12-26-3	5-14-4	G.McCreight	12 Millivolt deflection during TA tests.
1772*	F	C	2A/10A	Postinjection propulsion Xducer, N2 Reservoir	3-4-4	3-5-4	6-17-4	G.McCreight	Transducer output fluctuated from expected values to zero & back.
8016*	F	N	4A13	Power/Data Encoder	8-5-4	8-5-4	8-31-4	R. Dawson	D.E. unable to maintain sync. when battery charge current > 250 ma.
8020	F	N	6	Data Encoder	8-7-4	8-7-4	8-25-4	W. Apel	Trouble staying in sync. while homing.
6705	F	N	6A8	Data Encoder	-	8-12-4	8-20-4	W. Apel	Resistor 6A8A2R4 was cracked.
				AUG 24 1964					

SEPT 21 1964

MARINER P/FR SUMMARY

Sheet 4 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 36 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 6 - DATA ENCODER					
3583	F	N	6A1	PN Generator	10-1-4	10-1-4	10-22-4	C. Carl	D/E OSE failed to indicate commutator position.
				OCT 27 1964					
				FEB 1 1965					
10157	F		6A9A14	Commutator Synchronizer	2-27-5	2-27-5	OPEN	W. Johnson	Deck skip on MT 1 event.
10401	F	N	6A	Data Encoder	7-14-5	8-26-5	10-27-5	W. Apel	A rate 3/4 reset and step from 409 to 401 observed.
10404	F	N	6A	Data Encoder	8-3-5	8-26-5	10-27-5	W. Apel	Rate 2 and 3/4 resets observed coincident with recpt. of DC-26.
10408	F	N	6A	Data Encoder	9-2-5	9-16-5	10-27-5	W. Apel	All decks skipped after DC-26.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 8

R = Returned by Project Engineer
X = Answered but not closed

Page 37 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 7 - GUIDANCE CONTROL					
1191	-	C	7A2	A/C Gyro Control Assy.	9-21-3	10-25-3	10-31-3	P. Hand	No output command current req.
1190	-	C	7A2	A/C Gyro Control Assy.	9-23-3	10-25-3	10-31-3	P. Hand	Faulty Amplifier DCA-1.
101196 V		C	7A1	A/C Electronics S/A Preamp	1-29-4	1-29-4	7-13-4	W. Benjamin	Open diode in FSP-12 diode quad.
101194 V	-	N	7A1	A/C Electronics Gyro Switch Control	2-11-4	2-11-4	6-26-4	W. Benjamin	FSP-12 diode forward voltage drop too high.
101195 V	-	N	7A1	A/C Electronics Gyro Switch Control	2-11-4	2-11-4	6-26-4	W. Benjamin	FSP-12 diode forward voltage drop too high.
101197 V	-	N	7A1	A/C Electronics Gyro Switch Control	1-19-4	1-19-4	5-15-4	W. Benjamin	FSP-12 diode quad has a shorted diode.
101198 V	-	C	7A1	A/C Electronics Power Switch	1-19-4	1-19-4	7-13-4	W. Benjamin	FSP-12 diode quad has open diode.
101199 V	-	C	7A1	A/C Electronics Power Switch	1-29-4	1-29-4	5-25-4	W. Benjamin	Zener diode has possible over voltage applied to input (pin Z4).
3067	-	N	7A	External Canopus Shutter Blade	2-27-4	3-4-4	5-5-4	L. Schmidt	Collision between canopus shutter blade and the U-Ring.
				MAR 11 1964					
2206	F	C	7A2	Gyro Control Assy.	2-25-4	3-13-4	3-17-4	P. Hand	All Gyro output signals were lost after 160 sec. of vibration.
3702	-	C	7A1	Power Switch	3-6-4	3-10-4	4-6-4	W. Benjamin	CCW Roll Gas valve failed to operate during functional test.
3149	-	C	7A1	A/C Electronics	3-9-4	3-12-4	4-6-4	W. Benjamin	DC 19 command would not return elec. to normal roll.
3427	F	N	7A	C/S - Hood	3-7-4	3-13-4	5-5-4	J. Petralia	C/S unable to obtain proper null sig. during roll.
3428	F	N	7A	A/C	3-10-4	3-13-4	5-25-4	J. Petralia	+ "Y" solar vane position intermittent to tele. CH. T 307.
1192	F	C	7A2	A/C Gyro Control Assy.	10-18-3	11-20-3	12-5-3	P. Hand	Gyro gimbel stuck.
1116	-	C	7GR11	A/C Gas Regulator	11-12-3	11-19-3	12-5-3	J. Dahlgren	Cracked diaphragm.
1938	-	C	J4 2010048	Shade Assy. (Canopus)	12-10-3	12-17-3	2-26-4	L. Schmidt	Shade distorted.

MARINER P/FR SUMMARY

Sheet 2 of 8

R = Returned by Project Engineer
X = Answered but not closed

Page 38 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 7 - GUIDANCE CONTROL					
2762	-	C	7JV1 7JV3	Jet Vane Actuators	12-3-3	12-3-3	3-17-4	T. Donlin	Leaking orange red fluid.
2209	-	N	7PC5,7	Solar Vane Control	12-13-3	12-20-3	3-21-4	T. Donlin	Weakening output arm assy.
2537	-	N	7MG1	NAMG	1-3-4	1-4-4	1-20-4	G. Hooper	Pins on unit not properly identified.
2772*	F	N	20A 7MG1	DAS - NAMG	1-10-4	1-13-4	1-18-4	W. Schneider G. Hooper	NAMG plug not "IN", caused narrow angle planet in view.
2534	-	N	9W15 9W16	Harness	12-27-3	1-3-4	3-4-4	W. Benjamin	Incorrectly wired during assembly.
2535	-	N	7A	A/C System	12-27-3	1-3-4	3-5-4	W. Benjamin	Sun sensor monitor missing.
1193	F	C	7A2	Gyro Control Assy.	1-8-4	1-9-4	1-11-4	P. Hand	CCR output became erratic.
2547	-	C	7A1	Roll pre-amp. switch, amp	1-8-4	1-8-4	3-4-4	J. Petralia	Roll valves not blowing gas.
2778*	F	N	3A/7A	Command/Attitude Control	1-3-4	1-13-4	1-29-4	J. Casani	Sig. and pin nomenclature reversed on 9WLJ43.
3346	F	N	7A1	A/C Electronics	1-14-4	1-15-4	1-29-4	J. Petralia	Pitch int. signal to torque pitch gyro.
3351	F	N	7A1	A/C Electronics	1-16-4	1-17-4	1-27-4	J. Petralia	A/C roll valves blowing gas.
3352	F	C	7A1	A/C Electronics	1-16-4	1-17-4	6-5-4	J. Petralia	System momentarily lost "Acquisition"
3353	O	N	-	A/C OSE Console	1-16-4	1-17-4	2-7-4	J. Petralia	Pitch gyro meter pinned full scale.
3357	F	N	7A	A/C & Data Encoder	1-16-4	1-18-4	2-6-4	J. Petralia W. Apel	Yaw & roll gyros channels interchange
3364	F	N	7A	A/C Electronics	1-21-4	1-22-4	3-3-4	J. Petralia	Meters indicated error offset.
3429	F	N	7A	Attitude Control	3-8-4	3-13-4	5-5-4	J. Petralia	Cruise sun sensor stimulus lights failed: one short, one open ckt.
3430	F	N	4A	Solar Vane Actuators	3-7-4	3-13-4	5-5-4	J. Petralia	Actuators unable to drive s/v mntg. assy. in direction opposing gravity.
				MAR 23 1964					

MARINER P/FR SUMMARY

Sheet 3 of 8

R = Returned by Project Engineer
X = Answered but not closed

Page 39 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 7 - GUIDANCE CONTROL					
1195	F	C	7A	Gyro Control Assy.	3-10-4	3-12-4	4-6-4	P. Hand	Roll gyro channel became very noisy and erratic during heading tests.
3448	F	N	7CS8A	Sun Shutter Blade	3-31-4	4-1-4	4-14-4	L. Schmidt	During accelerometer calibration, blade accidentally bent.
3450	F	N	7GA1 7GA2	A/C Gas System	3-28-4	4-1-4	5-5-4	J. Dahlgren	Gas tubing did not fit on solar panels per drawing instruction.
3458	F	C	-	Sun Shutter Blade Canopus Sensor	4-3-4	4-3-4	4-28-4	L. Schmidt	Screw head clearance between sun sensor and blade very marginal.
3460	F	N	-	Attitude Control	4-3-4	4-3-4	5-9-4	J. Casani	Sun gate loss would not start the gyros.
2220	F	C	-	Earth Detector	4-2-4	4-3-4	5-21-4	G. Shima	Output readings on microvoltmeter indicated a shorted cadmium cell.
				APR 13 1964					
5618	F	C	7SS-2	SQ. Root Sun Sensor	3-18-4	4-10-4	6-5-4	L. Schmidt	"D" detector was found to be open during post FA performance tests.
3465*	-	C	7A	Canopus Tracker SK, A/C OSE	4-6-4	4-7-4	5-6-4	W. Benjamin	OSE indicated inability of canopus tracker to acquire simulated canopus stim.
1513	F	N	7GA	Gas System Gas Regulator	4-8-4	4-9-4	5-5-4	J. Dahlgren	Screen Sterer P/N 11979 of regulator was painted.
3478	F	N	7A	Canopus Tracker	4-6-4	4-14-4	5-14-4	W. Moore	Three changes of cone
				APR 27 1964					
1511	-	N	76A	Jet Manifold Assemblies	4-1-4	4-7-4	6-3-4	J. Dahlgren	Large quantity of nitrogen was leaking from valves or support equip.
1512	-	N	7GA	Jet Manifold Assembly	4-3-4	4-7-4	6-5-4	J. Dahlgren	Nitrogen gas leaking from valves or support equip. during environment.
				MAY 11 1964					
6022	F	N	7GA1	Gas System	5-4-4	5-4-4	8-19-4	J. Dahlgren	Gas tubing mtg. brkt. at "F" did not line-up with hole on octagon web.
6023	F	N	7GA1 7GA2	Gas System	5-4-4	5-4-4	7-6-4	J. Dahlgren	Mounting hardware used to clamp tubing to N2 bottle not flight hardware.
6024	F	N	7GA1 7GA2	Gas System	5-4-4	5-4-4	7-6-4	J. Dahlgren	Hardware call out of dwg. 4201381 does not specify fine #21 washer.

MARINER P/FR SUMMARY

Sheet 4 of 8

R = Returned by Project Engineer
X = Answered but not closed

Page 40 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 7 - GUIDANCE CONTROL					
6025	F	N	7ED6	Earth Detector Light Hood	5-4-4	5-4-4	5-25-4	J. Petralia	Interferes with flt. type pnl. when solar pnl. 15 in boost configuration.
6026	F	C	7GA1	Gas System	5-13-4	5-13-4	7-21-4	J. Dahlgren	Rewkd portion of gas tubing has very sharp edge contacting elec. harness.
6027	F	N	7GA2	Gas System	5-13-4	5-13-4	7-10-4	J. Dahlgren	Mtg. brkt. at octagon bellows interferes with ft. of radiation detec.
7012	F	N	7CS8	Canopus Tracker	5=15-4	5-15-4	7-15-4	W. Benjamin	Intermittent operation of solenoid
7013	F	C	7A1	Control System Electronics	5-15-4	5-16-4	7-9-4	W. Benjamin	Open line on MT-3 command was found between interface & canopus tracker
1197	F	N	7A2	Elapsed Time Indicator	5-18-4	5-18-4	6-5-4	P. Hand	Back end term. had been smashed down. Pins were bent over.
				MAY 25 1964					
1733	-	C	-	Canopus Tracker	5-18-4	5-19-4	8-18-4	R. Davis	No output and no noise on either roll or intensity T/M channels.
				JUN 8 1964					
1716	-	N	7CS8	Canopus Tracker	4-8-4 to 6-1-4	6-1-4	7-21-4	E. Davis	No output signal from tracker.
3527	-	C	7A	Gas System Solar Panel Rack	6-4-4	6-4-4	7-21-4	J. Dahlgren	Gas rack kluge in Bay 1 saged over & dug pin puller into HG ant.
7037	F	N	7CS8	Canopus Tracker	6-5-4	6-8-4	7-6-4	J. Casani	Four angle changes noted, but 5 MT-1 were issued manually.
1722	F	C	7CS8	Canopus Tracker	6-4-4	6-10-4	10-8-4	E. Davis	Xistor Q7 exhibited low beta & high leakage in ckt. bench checks.
1723	F	C	7CS8	Canopus Tracker	6-4-4	6-10-4	10-8-4	E. Davis	Xistor Q23 exhibited low beta in ckt. during bench checks.
3529	F	N	7A	Flex Tube (A/C Gas Sys.)	6-9-4	6-9-4	7-21-4	J. Dahlgren	Convultions dented in area of solar panel hinge bolts.
3531	F	N	7A	Solar Vane Actuator	6-9-4	6-9-4	7-1-4	J. Petralia	Two screws missing and head loose on solar vane actuator.
7051	F	N	7GA1 7GA2	A/C Gas System	6-11-4	6-12-4	7-6-4	J. Dahlgren	Solar Pnl. raised, Bellows on tubing flexed and hit edge on panel.
7052	F	N	7GA1	A/C Gas System	6-11-4	6-12-64	7-10-4	J. Dahlgren	6 pds of force reqd to make gas manifold come flush with mounting plane

MARINER P/FR SUMMARY

Sheet 5 of 8

R = Returned by Project Engineer
X = Answered but not closed

Page 41 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 7 - GUIDANCE CONTROL					
7053	F	N	7GA1	A/C Gas System	6-10-4	6-12-4	7-21-4	J. Dahlgren	1 screw difficult to install. Impossible to torque tubing.
3532	F	C	7GA2	A/C Gas System (-X,Y)	6-13-4	6-13-4	6-30-4	J. Dahlgren	Gas leak in (-X,Y) Gas Line bellows at 3rd or 4th convolution lower side.
				JUN 22 1964					
1738	F	C	7CS8	Canopus Tracker	6-22-4	6-22-4	7-6-4	L. Davis	Dark Intensity 7/m voltage dropped from 1.95 to 1.45 volts.
3550*	F	C	7A/1A	A/C Gas System -X/+Y	6-25-4	6-25-4	9-24-4	J. Dahlgren	Reworked below tubing rides hard on trapped radiation lug.
7070	F	N	7GA1 7GA2	+X/-Y, -X/+Y Gas Syst.	6-27-4	-	7-10-4	Moore	-X/+Y lost pressure much faster than the +X/-Y system.
6087	F	N	7CS8	Canopus Tracker	7-4-4	7-6-4	8-18-4	E. Davis	Approx. 6 hours of warm-up required before roll acquisition could be accom.
2054	F	C	7CS8	Canopus Tracker	7-13-4	7-15-4	10-30-4	E. Davis	Large Transient on intensity signal.
5976	F	N	7GA	Gas Regulator	4-3-4	4-3-4	7-21-4	J. Dahlgren	Inlet tube was grooved while being removed from system.
5978	F	C	7GA	Gas System	2-2-4 5-1-4	5-19-4	7-21-4	J. Dahlgren	Leak in flex tube hinge C 4201394.
5979	F	C	7GA	Gas System	5-19-4	5-29-4	7-21-4	J. Dahlgren	Cracked in root of convolution.
1735	F	C	7CS8	Canopus Tracker	Unknown	7-8-4	10-8-4	E. Davis	Transistor out of spec. during original JPL check.
1736	F	C	7CS8	Canopus Tracker	6-4-4	7-8-4	10-2-4	E. Davis	Transistor found faulty.
1737	F	C	7CS8	Canopus Tracker	Unknown	7-8-4	10-1-4	E. Davis	Transistor out of spec. during original JPL check.
1721	F	N	7CS8	Canopus Tracker	-	7-9-4	7-21-4	E. Davis	Resistor coating chipped.
5977	F	C	7GR	Gas Regulator	4-2-4	5-15-4	8-18-4	J. Dahlgren	Lock up pressure increased to 23.5 psig at approx. 250 cps.
6093	F	C	7CS8	Canopus Tracker	7-15-4	7-17-4	8-18-4	E. Davis	Canopus tracker intensity dropped to zero volts.

MARINER P/FR SUMMARY

Sheet 6 of 8

R = Returned by Project Engineer
X = Answered but not closed

Page 42 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 7 - GUIDANCE CONTROL					
7075	F	N	7CS8	Canopus	7-21-4	7-21-4	8-28-4	W. Moore	Poor alignment between mounting holes in shield and tracker.
8006	F	C	7SG2	Sun Gate	7-22-4	7-29-4	8-18-4	L. Schmidt	A short circuit noticed on 9W1 P701n.
				AUG 7 1964					
8012	F	C	7CS8	Canopus Tracker	8-7-4	8-7-4	10-2-4	E. Davis	Cone angle null offsets vary from (+)2 volts to (-)4 volts.
6116	F	N	7GA1	A/C Gas System	8-7-4	8-7-4	8-22-4	J. Dahlgren	Filter installed in reverse manner preventing gas from discharging.
3569	F	C	7GA1	+X/-Y	8-10-4	8-16-4	9-24-4	J. Dahlgren	Leak in flex line.
7109	-	C	-	Solar Pressure Vane	-	8-16-4	10-1-4	E. Ivie	Plus and minus "Y" solar vanes are not functioning on T/M or OSE.
				AUG 24 1964					
8036	F	N	7	Solar Vane (Pitch, +X)	8-26-4	8-28-4	10-2-4	R. Cooper	Solar Vane goes to full travel when canopus power is on.
5981	-	C	-	A/C Gas System	8-19-4	8-31-4	9-10-4	J. Dahlgren	Mystik adhesive tape has poor adherance.
				SEPT 8 1964					
7125	F	C	7A	Attitude Control	9-4-4	9-6-4	10-1-4	W. Moore	Failed to respond to turn increments commanded by DC-18 & 21.
7126	F	C	7A	Attitude Control	9-4-4	9-6-4	10-1-4	W. Moore	Gyros came back on immediately after turning off.
7120	F	C	-	Spacecraft	8-26-4	8-27-4	10-1-4	E. Ivie	For one commutation, chnl. data changed from 64.
6127	F	N	7A1	A/C Electronics	9-1-4	9-1-4	10-1-4	J. Petralia	A booster regulator failure resulted in a stray reg. 4 event.
6128	F	C	7GA2	A/C Gas System	[illegible]	[illegible]	10-1-4	J. Dahlgren	Pitch valve operating intermittently.
7130	F	N	7A	A/C Gas System	9-15-4	9-17-4	10-1-4	J. Dahlgren	2 bolts, nuts, washers, and lock washers missing from leg "F".
				SEPT 21 1964					

MARINER P/FR SUMMARY

Sheet 7 of 8

R = Returned by Project Engineer
X = Answered but not closed

Page 43 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 7 - GUIDANCE CONTROL					
7131	F	C	7CS8	Canopus Tracker	9-18-4	9-18-4	10-22-4	E. Ivie J. Petralia	Not possible to null canopus tracker roll error normally.
1732	F	C	7CS8	Canopus Tracker	9-19-4	9-23-4	10-22-4	R. Sicol	Latching relay hung up in operation.
1147	F	C	7A1J3	Case Harness Connector	9-9-4	9-9-4	10-1-4	W. Brocksieper	Three sockets failed pin retention test.
1151	F	N	7A1J3	Case Harness Connector	9-8-4	9-9-4	10-1-4	W. Brocksieper	Ten sockets failed pin retention test.
8073*	F	N	S/C-7A 4A-9w	A/C-Power-Cabling	10-3-4	10-3-4	10-8-4	J. Casani	Two wires in sun shutter left dangling and uncovered.
8069	F	N	-	Solar Vane Actuator	8-24-4	10-1-4	10-25-4	T. Donlin	Actuator arm in Bay I found to have moved past it's stop.
				OCT 12 1964					
6138	F	N	7GA2	-X/+Y Gas System	-	10-12-4	10-27-4	E. Ivie J. Dahlgren	System leaking at approx. 30 cc/hr. spec. is 25 cc/hr.
7151	F	N	7CS8	Canopus Tracker	9-19-4	10-9-4	10-29-4	E. Ivie	Intensity voltage displayed 20 mv. shift.
7159	F	N	7CS8	Sun Shutter Assy.	10-14-4	10-16-4	10-29-4	E. Ivie	Surface scratches noted on shutter blade.
7161*	F	N	7CS8 107RC1	Canopus Tracker or Back Console		10-19-4	10-29-4	E. Ivie	Acquisition signal rcvd. with intensity of 0.2X Canopus.
7167	F	C	7A2	Gyro Package	10-20-4	10-21-4	10-29-4	E. Ivie	CDS or OSE indicated a gain change or pitch chnl. shift.
				OCT 27 1964					
7171	F	N	7CS8	Canopus Tracker Baffle	10-28-4	10-29-4	10-30-4	E. Davis E. Ivie	Imperfection in edge after sun shutter blade installation.
1717	F	C	-	Canopus Tracker	10-28-4	11-10-4	11-25-4	E. Davis	Dark voltage dropped. inten. vs. roll angle unsymmetrical.
				NOV 16 1964					
1718	F	N	7CS8	Canopus Tracker	12-15-4	12-18-4	1-14-5	E. Davis	50v RMS momentarily shorted to roll error signal.
9312	F	N	7A	-X +Y Gas System	1-13-5	1-19-5	8-12-5	W. Moore	Readings indicate a leak in -X/+Y system.

FEB 1 1965 MARINER P/FR SUMMARY

Sheet 8 of 8

R = Returned by Project Engineer
X = Answered but not closed

Page 44 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 34				SUBSYSTEM 7 - GUIDANCE CONTROL					
				FEB 1 1965					
5619		N	7PS2 7PS6	Sun Sensor	1-18-5	2-8-5	5-20-5	L. Schmidt	Null offset signal and +0.5 degree reading exceeded tolerance.
10149	F	N	7A	Attitude Control	2-16-5	2-19-5	11-1-5	D. Thomas	Roll transient noted in telemetry.
10160	F	N	7A	Attitude Control	3-11-5	3-11-5	4-16-5	K. Bouvier	Roll recovery transient observed in data.
10165	F	N	7A	Attitude Control	3-14-5	3-15-5	4-16-5	K. Bouvier	Roll transient noted in telemetry.
10167	F	N	7A	Attitude Control	3-18-5	3-18-5	4-16-5	K. Bouvier	Minor roll transient noted in data.
10175	F	N	7A	Attitude Control	4-7-5	4-7-5	4-16-5	K. Bouvier	Minor roll transient recovery noted in data.
10177	F	N	7A	Attitude Control	4-10-5	4-12-5	4-26-5	K. Bouvier	Minor roll transient observed. Recovery normal.
10170	F	N	7A	Attitude Control	Entire Mission	4-1-5	11-1-5	K. Bouvier	Valves giving twice design torque per firing.
10171	F	N	7A	Attitude Control	3-1-5 -- 4-1-5	4-1-5	10-15-5	K. Bouvier	Solar vanes step rapidly. Negative torque about yaw axis.
10178	F	N	7A	Attitude Control	4-25-5	4-26-5	7-21-5	K. Bouvier	Minor roll transient noted in data.
10187	F	N	7A	Attitude Control	5-22-5	5-24-5	7-21-5	K Bouvier	Minor roll transient. Recovery appeared normal.
10190	F	N	7A	Attitude Control	6-9-5	6-9-5	7-21-5	K. Bouvier	Roll transient noted in data.
10191	F	N	7A	Attitude Control	6-11-5	6-22-5	7-21-5	K. Bouvier	Minor roll transient. Effects in pitch and yaw.
10192	F	N	7A	Attitude Control	6-12-5	6-22-5	7-21-5	K. Bouvier	Minor roll transient. Recovery normal.
10193	F	N	7A	Attitude Control	6-16-5	6-22-5	7-21-5	K. Bouvier	Minor roll transient.
10195	F	N	7A	Attitude Control	6-19-5	6-22-5	7-21-5	K. Bouvier	Roll transient. Activity on magnetometer coincident.
10405	F	N	7A	Attitude Control	6-27-5 -- 8-4-5	8-26-5	9-8-5	K. Bouvier	9 roll transients observed in data.

MARCH 1 1966 MARINER P/FR SUMMARY

Sheet 1 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 45 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 38				**SUBSYSTEM 8 - PYROTECHNICS**					
1437	F	C	8A1 8A2	(Transferred from OSE) Pyro Control System	9-12-3	9-23-3	1-10-4	M. Moore	Sticking relay contacts Command M-7 Inoperative OSE involved.
2558	F	N	8AS1	Separation Switch	1-7-4	1-7-4	3-10-4	J. Randall	Wires reversed at switch.
2758	-	C	-	Pyro Assy.	11-27-3	12-5-3	4-10-4	W. Wuest	Mis-firing of squibs.
3348	F	N	8M1 8AS1	PAS, SIT REWRITTEN	1-14-4	1-15-4	5-28-4 4-6-4	M. Moore	PCA indicators indicate erroneously.
1441	-	C	8A2 8A1	Pyro Control Subassy.	1-9-4	1-9-4	6-9-4	M. Moore	K3 failed to inhibit.
2211	F/O	N	-	Pyro	1-14-4	1-22-4	2-7-4	M. Moore	Pinpuller motion improper.
1028	-	N	8A	Pyrotechnics Pyro Arming Switch	10-9-3	10-10-3	10-14-3	J. Randall	Ballast resistor shorted.
1527	F	N	8M1	Separation Int. Timer	11-1-3	11-1-3	11-12-3	C. Coyle	MCE 50068 ETS to be revised.
1446	-	N	-	Pyro. Control Subassy.	2-10-4	2-10-4	3-3-4	M. Moore	Graph traces reveal non-uniform squib current decay time.
1448	F	C	8A	Pyro.	1-27-4	1-28-4	3-5-4	M. Moore	Firing current not supplied on command.
3388	F	N	8A	Pyro-motion sensor harness.	1-12-4	2-13-4	3-15-4	W. Pierce	Short in harness wiring.
2759	-	C	8A	Pips Fuel Shutdown Squib	12-6-3	12-8-3	3-10-4	T. Croudle	Powder did not ignite.
				MAR 11 1964					
1702	-	C	-	Pin Puller	2-12-4	3-19-4	4-4-4	A. Benedict	Extended testing caused bridgewires to open circuit.
				APR 13 1964					
1536	-	N	-	Explosive Squibs	4-13-4	4-22-4	7-17-4	R. Weiner	Two squibs fired as a result of a second discharge test.
3492*	F	N	-	Pyrotechnics/ Data Encoder	4-24-4	4-24-4	6-10-4	J. Casani	During encounter mode, two events were recorded; tape recorder no run.
				MAY 11 1964					

MARINER P/FR SUMMARY

Sheet 2 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 46 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 38				**SUBSYSTEM 8 - PYROTECHNICS**					
3513	F	N	8AS-1	Pyro Arming Switch	5-20-4	5-21-4	6-19-4	J. RAndall	GTS failed to receive event change when PAS was armed from pyro OSE.
3516	F	N	8M1	S.I. Timer	5-23-4	2-23-4	6-3-4	J. Coyle	Micro-switch sleeves were bent also shaft appears bent.
				JUN 8 1964					
1442	F	N	8A1 8A2	Power Case	6-22-4	6-22-4	7-6-4	M.L. Moore	Connector rotated 180 deg. from position on drawing./
3553	F	N	8A1 8A2	Pyro Control	6-27-4	6-27-4	7-21-4	M.L. Moore	A chnl. no. 3 event was registered when DC-25 was issued.
				JUL 9 1964					
6088	F	C	8A	Burn Wires	7-3-4	7-8-4	7-22-4	B. Schmitz	10 M/C Burn wires measured less than 2 Megohm to ground.
6110	F	N	8A1 8A2	Pyro Control Assys.	7-29-4	7-30-4	8-18-4	M. Moore	During M/C maneuver D.E. register events did not occur.
				AUG 7 1964					
7085*	F	N	8SQ14	Post Injection Pro. Sys.	6-23-4	6-27-4	8-8-4	H. Hartung	Test simulated squib (burn wire) had 500 OHMS to ground.
3371	F	N	8 AS1	Pyro Sep. Init. Timer	1-29-4	1-29-4	2-21-4	G. Coyle	Excessive pull to pull safety pin.
5668	-	N	-	Separation Initiated Timer	4-15-4	4-17-4	5-5-4	G. Coyle	Timer plunger failed to extend after second test in phase 5.
5663	F	N	8M1	Separated Initial Timer S. I. T.	4-28-4	5-5-4	8-18-4	G. Coyle	Switch chatter noted during Z axis of complex wave vibration.
6115	F	N	8A1 8A2	Pyro Control Assys.	7-25-4	8-5-4	8-18-4	M. Moore	Register 1 and 3 events occurred with issuance of DC-25 commands.
6119	F	N	8A1 8A2	Pyro Control Assys.	8-11-4	8-11-4	8-25-4	M. Moore	With pyro safe, a dc-25 command results in scan cover release.
				AUG 24 1964					
8032	F	N	8A51	Pyro Arming Switch	8-22-4	8-24-4	9-24-4	E. Floyd	Pyro could not be disarmed.
				SEPT 8 1964					

MARINER P/FR SUMMARY

Sheet 3 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 47 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				**SUBSYSTEM 8 - PYROTECHNICS**					
7133	F	N	8A	Pin Puller Squib	9-22-4	9-22-4	10-9-4	R. Hanson	Showed a short from pins to case.
8065	F	N	8M1 8A51	Pyro	9-11-4	9-14-4	10-22-4	M. Moore	Arming pyro frm. either DAS or SIT resets D/E 200 deck sync.
				OCT 12 1964					
				FEB 1 1965					
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 1

R = Returned by Project Engineer
X = Answered but not closed

Page 48 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				**SUBSYSTEM 9 - CABLING**					
2336	F	N	9W19	Lower Ring Harness	11-15-3	11-18-3	1-14-4	W. Pierce	Ring harness wires pinched during installation.
2559	F	N	9W	Ring Signal Harness	1-7-4	1-7-4	3-11-4	W. Pierce	Telemetry Chls. 205 & 221 reversed.
2770	F	C	9W1	Ring Harness, Con. Pins	1-6-4	1-9-4	4-4-4	W. Pierce	Absorbtivity cell #1 shorted out.
3382	F	N	9W20 9W23	Wire Harness Drawings	2-5-4	2-7-4	2-19-4	R. Ebbett	Incorrectly identified drawings.
3401*	F	N	2A/9A	Lower Ring Harness Radio	2-24-4	2-27-4	7-27-4	J. Boreham	Subminas coax exhibits strong pick-up when radiated with Agena Telemet.
3405	F	N	9W19	Separation	2-25-4	2-29-4	3-30-4	W. Pierce	Video Storage +16VDC return connec. to pin 18 instead of pin 16.
3366	-	C	9A	J-C Bendix Conn.	1-23-4	1-23-4	4-10-4	L. Michal	Metal shavings; difficult to mate.
				MAR 11 1964					
1353	-	C	9W6	Data Encoder Harness	3-12-4	3-12-4	4-12-4	W. Apel W. Pierce	Socket 17 of cannon 6A4P1 found to be discrepant per CT tester.
				MAR 23 1964					
649	F	C	9W17	Case Harness	2-6-4	2-7-4	7-6-4	W. Pierce	DAS stop comm. failed to stop tape transmitter.
3445	F	N	9W19	Lower Ring Harness	3-30-4	3-31-4	5-20-4	W. Pierce	Mounting screws of 9W20J4 conn. interfere with shell of 9W20P4 conn.
3451	F	N	9W14	Motion Sensor Harness	3-30-4	4-1-4	5-11-4	W. Pierce	Connectors 8ms 1 & 6 on pin pullers interfere with high gain antenna.
				APR 13 1964					
6002	F	N	9W28	Science Pyro Harness	4-16-4	4-16-4	5-1-4	W. Pierce	Shield terminations at connectors terminated too close to connectors.
				APR 27 1964					
6003*	F	N		Power Regulator Harness	4-22-4	4-23-4	6-4-4	G. Cleven	Harness branches to upper ring harness conn. 9W1J180 & 9W1J82 too short.
				MAY 11 1964					

MARINER P/FR SUMMARY

Sheet 2 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 49 of 112

* Interface

REPORT NO.	Flight OSE	Called Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM 9 - CABLING					
6010	F	N	9W23	Lower Science Signal Harness	5-9-4	5-9-4	6-19-4	G. Coyle	Harness length is not long enough to allow connector 9W 20P2 to mate.
6011	F	N	9W19	Lower Ring Harness	5-8-4	5-9-4	8-3-4	W. Pierce	Breakout to conn. 9W20P4, makes an acute radius bend & rides side.
6012	F	N	9W	Lower Connector Plate	5-9-4	5-9-4	5-20-4	W. Pierce	DS-84 screws interfere with the shell of conn. 9W20P4.
7006	F	N	9W19	Lower Ring Harness	5-1-4	5-4-4	7-8-4	W. Pierce	Location of breakout 9W4P2, makes it difficult to connect 9W4P2 & 9W4J2.
				MAR 25 1964					
1773	F	N	9W10	Pyro Harness	5-27-4	6-1-4	7-2-4	W. Pierce	Observed to have cracks running laterally around potting cups.
6056	F	N	9W20	Case III Science Harness	6-5-4	6-5-4	6-26-4	R. Ebbett	One wire found partially cut on involved circuit.
7049	F	N	9W19	Lower Ring Harness	6-6-4	6-11-4	9-1-4	W. Pierce	No event registered upon releasing scan platform, reversal in excitation.
				JUN 22 1964					
8001	F	N	9W19	Lower Ring Harness	6-16-4	6-16-4	7-8-4	W. Pierce	Cable breakout in flight connector. cable rides bus.
3065*	-	N	-	Hi Gain Ant/Pin Pullers Cabling	12-1-3	2-17-4	4-29-4	J. Schmuecker J. Earnest	Conn. GW14 contacts antenna dish.
3548	F	N	9W19	Lower Ring Harness	6-25-4	6-25-4	7-8-4	W. Pierce	Bay I & Bay IV lower ring harness wires are chaffed & possibly bare.
3396	F	N	9W20	Science Case Harness Temp. Connectors	2-19-4	2-26-4	3-25-4	W. Pierce	Connector leads wrong length. Case temp. lead too long.
7073	F	N	9W4	EA1 Case Harness	7-16-4	7-16-4	9-19-4	W. Pierce	Pins 13 & 14 are too short and improperly held.
7080	F	N	9	Cabling	7-24-4	7-24-4	8-25-4	E. Floyd	Wrapping of cable harness shorted out the output of narrow angle marsgate.
7079	F	N	9W1	Upper Ring Harness	7-21-4	7-22-4	9-22-4	W. Pierce	9W1J43 - Pin A - goes to 9E1 instead of splice 17.
8007		N	9W1	Ring Harness	7-27-4	7-27-4	8-18-4	R. Stickley	Pin was bent over during mate of breakout conn. to ring harness.
8003	F	N	9W1	Upper Ring Harness	7-27-4	7-27-4	8-18-4	W. Pierce	Wires from main harness to earth detector is short.

MARINER P/FR SUMMARY

Sheet 3 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 50 of 112

* Interface

REPORT NO.	Flight OSE	Called Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM 9 - CABLING					
8009	F	N	9W1	Upper Ring Harness	7-29-4	7-29-4	8-18-4	W. Pierce	Louver position and temp transducer connectors reversed.
8010	F	N		P.I.P.S.	7-30-4	7-30-4	8-18-4	W. Pierce	Connector 85Q19 would not mate properly.
				AUG 7 1964					
8011	F	N	9W	Lower Ring Harness	8-4-4	8-4-4	8-18-4	W. Pierce	Two wires #K and #J damaged.
8014	F		9W20	VOID Lower Ring Harness	8-4-4	8-4-4	VOID	W. Pierce	Two wires #K and #J damaged.
				AUG 24 1964					
6124	-	N	9W11	Harness for pips	8-21-4	8-21-4	9-4-4	W. Pierce	Harness, in new C.G. configuration is too short to reach upper ring tray.
8031	F	N	9W23	Science Lower Signal Harness	8-21-4	8-21-4	9-10-4	W. Pierce	Tedlar wrapping & harness cover torn near T.V. head.
				SEPT 8 1964					
8054	-	C	9W19	Lower Ring Harness	9-16-4	9-16-4	10-1-4	W. Pierce	Harness rubs against plug 9W4P2.
8070	F	C	9W11	Harness Assy.	9-24-4	9-24-4	10-9-4	B. Schmitz W. Pierce	Connector 9W1P20 approx. 1/2 inch too short.
8073*	F	N	S/C-7A 4A-9W	A/C-Power-Cabling	10-3-4	10-3-4	10-8-4	J. Casani	Too wires in sun shutter left dangling and uncovered.
3574	F	N	9W19	Lower Ring Harness	9-28-4	9-28-4	10-22-4	W. Pierce	Wire bare at umbilical conn. by chafing on bracket.
7141	F	C	9W23	Signal Harness Lower Science	9-4-4	10-7-4	10-22-4	W. Pierce	Wire to NAMG terminal is broken.
				OCT 12 1964					
3580	F	N	9W1	Upper Ring Harness	9-26-4	9-26-4	10-22-4	W. Pierce	Conn. 9W1 J40 rubber insert retainer punctured.
6139	F	N	7SS6	Second Sun Sensor	10-12-4	10-12-4	10-26-4	J. Lansford	Wire broken on terminal number 4 of 7SS6.
6142	F	N	-	Connectors Potting Compound	10-14-4	10-14-4	10-27-4	W. Pierce	Compound subject to external magnetic fields.

MARINER P/FR SUMMARY

Sheet 4 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 51 of 112

* Interface

REPORT NO.	Flight OTE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 9 - CABLING					
7164*	F	N	9W18	PIPS Squib Harness	10-16-4	10-19-4	10-27-4	B. Schmitz W. Pierce	Conn. would not accept test shorting plug.
				OCT 27 1964					
9301	F	N	9W19J2	In Flight Connector	10-30-4	10-31-4	11-18-4	H. VonDelden	One screw stripped in mounting brkt.
				NOV 16 1964					
				FEB 1 1965					
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 2

R = Returned by Project Engineer
X = Answered but not closed

Page 52 of 112

* Interface

REPORT NO.	Flight OTE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 38				SUBSYSTEM 10 - PROPULSION					
1532	-	C	10A	Pneumatic Regulator	12-6-3	12-9-3	1-14-4	L. Toth B.W.Schmitz	Pneumatic regulator no regulate until 500 psig.
1039	-	N	J4 700603	Nitrogen System Install	12-7-3	12-17-3	12-30-3	B. Schmitz	Nuts loosened on mock-up.
2760	-	N	-	Pips Fuel Tank Bladder	12-6-3	12-16-3	1-27-4	T. Groudle	Exposed to excessive differential pressure.
2761	-	N	-	Pips Fuel Tank Bladder	11-26-3	12-16-3	1-29-4	T. Groudle	Bladder failure.
2763	-	C	-	Pips N2 Shutdown Squib	12-15-3	12-16-3	3-10-4	T. Groudle	Powder charge didn't ignite.
1772*	F	C	10A	Post injection propulsion Xducer, N2 Reservior	3-4-4	3-5-4	6-17-4	G. McCreight	Xducer output fluctuated from expected valves to zero & back.
1530	F	C	10A	Rocket Engine	9-3-3	9-3-3	10-15-3	B. Schmitz	Rocket Engine chamber failed after 71 seconds.
1531	-	C	D4700 631	Nitrogen Tank	10-17-3	10-17-3	11-11-3	B. Schmitz D. Kohorst	Nitrogen tank burst at 6180 psig.
				MAR 11 1964					
1534*	-	C	10A	Data/Enc. Chamber Pressure Xducer	3-20-4	3-20-4	4-30-4	G. McCreight	Calibration of Xducer had shifted upscale approx. 45 PSIA.
				APR 13 1964					
1535	-	N	-	Oxidizer Explosive	3-31-4	4-14-4	7-2-4	L. Toth	External leakage thru braze joint betwn. nipple and body of valve.
				APR 12 1964					
1438	-	N	10A	All Midcourse Valves	5-14-4	5-19-4	7-10-4	B. Schmitz	Squibs do not have color code to match harness color code.
				JUN 8 1964					
1537*	-	N	10A	Oxidizer Pressure Transducer	4-23-4	5-23-4	7-2-4	G. McCreight	Start cartr. pressure xducer indicated a pressure loss of approx. 1.0 PSIA/day.
792*	F	C	-	Post Injection Propulsion Sys. Xducer, N2 Reservior	4-11-4	4-14-4	6-17-4	G. McCreight	Xducer output fluctuated from expected value. A rattle was detected.
1539	-	N	-	Post Injection Propulsion Sys. Explosive Valves	6-21-4	6-24-4	7-10-4	R.S. Weiner	NC (Normally closed) rams out of tolerance.

MARINER P/FR SUMMARY

Sheet 2 of 2

R = Returned by Project Engineer
X = Answered but not closed

Page 53 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 38				SUBSYSTEM 10 – PROPULSION					
1538	-	N	10	Post Injection Propulsion System	6-19-4	6-22-4	7-10-4	B.W.Schmitz	Abnormal engine ingition in test Dd-100.
1778	F		10	V O I D Post Injection Pro. Sys.	7-27-4	7-27-4	VOID	N. Climes	When delivered, lacked caps over male connectors on servo actuators.
7085*	F	N	8SQ14	Post Injection Pro. Sys.	6-23-4	6-27-4	8-8-4	H. Hartung	Test simulated squib (burn wire) had 500 OHMS to ground.
				AUG 7 1964					
6123	-	N	10A	Pips	8-20-4	8-20-4	9-3-4	B. Schmidz	RTV-Nut threads stripped out.
				SEPT 8 1964					
				OCT 12 1964					
7164*	F	N	9W18	PIPS Squib Harness	10-16-4	10-19-4	10-27-4	B. Schmitz W. Pierce	Comm. would not accept test shorting plug.
				OCT 27 1964					
				FEB 1 1965					
10088	F	N	10A	Fuel Tank/Bladder	2-3-5	3-30-5	4-9-5	T. Groudle	Xducer indicated a rise in pressure of 4 psi.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 2

R = Returned by Project Engineer
X = Answered but not closed

Page 54 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 35				SUBSYSTEM 11 – THERMAL CONTROL					
3449	F	N	11FM1	Absorptivity Standard	3-28-4	4-1-4	5-21-4	D. Lewis	Mounting holes altered due to shrinkage of the plastic.
				APR 13 1964					
5661	F	N	11FM1	Cover Absorptivity STD	4-22-4	5-20-4	6-2-4	T. Thostesen	Covers suffered blistered & cracked paint during thermal test.
				JUN 8 1964					
6044*	F	N	11TT3	EA3 Chassis Xducer Assembly	5-22-4	5-26-4	7-2-4	G. McCreight	Bay 3 temp. tele. chnl. gives initial temp. reading of 118.8°F. (others 75°F)
7055	F	N	11A	Louver Assembly	6-9-4	6-12-4	7-2-4	G. Coyle	When torquing louver to frame, one of the inserts came loose.
7056	F	N	11A	Lower Thermal Shield	6-9-4	6-12-4	7-2-4	H. VonDelden	Interferes with foot and shear washers at D & T.
				JUN 22 1964					
1126	F	C	7A	Solar Vane Actuator	4-19-4	4-22-4	7-21-4	W. Carroll	Aluminum-Silicon paint blistered and ran during FA vac-temp. test.
1127	F	C	7A	Solar Vane Actuator	4-19-4	4-22-4	7-21-4	W. Carroll	Aluminum-Silicon paint blistered and ran during FA vac-temp. test.
1128	F	C	7A	Solar Vane Actuator	4-19-4	4-22-4	7-21-4	W. Carroll	Aluminum-Silicon paint blistered and ran during FA vac-temp. test.
1129	F	C	7A	Solar Vane Actuator	4-19-4	4-22-4	7-21-4	W. Carroll	Aluminum-Silicon paint blistered and ran during FA vac-temp . test.
1130	F	C	-	Thermal Control Aluminum-Silicone	5-1-4	5-7-4	8-21-4	Miskulin Lewis/Carroll	Particles of aluminum powder separated from surface of paint.
				JUL 9 1964					
5980	-	N	7	(A/C Gas System) Plate Equipment Mtg.	-	7-31-4	8-19-4	W. Carroll	Paint flakes off equipment plate.
				AUG 7 1964					
5630	-	N	-	High-Gain Antenna	7-24-4	8-20-4	10-5-4	W. Carroll	Area of temp. control paint came loose from ant. skin.
8030	-	C	11	Absorptivity Standard	8-21-4	8-21-4	9-23-4	T. Thostesin	Absorptivity standard temp. No. P, Chnl. 412 reads 126 - should read 100

SEPT 8 1964

MARINER P/FR SUMMARY

Page 55 of 112

Sheet 2 of 2

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
SUBSYSTEM 11 – TEMPERATURE CONTROL									
6132	F	N	11	Lower Thermal Shield	9-14-4	9-14-4	10-2-4	D. Lewis	To install shield. A/C Canopus Tracker Bendix Conn. must be disconnected.
				SEPT 21 1964					
6133	F	C	11	Absorptivity Standard	9-18-4	9-18-4	10-2-4	D. Lewis	No. 4 registered DN of 122. should have indicated a DN of 126.
5642	F	N	11A	Upper Thermal Shield	9-23-4	9-30-4	10-5-4	H. VonDeldon	Inner layer of blanket was torn in the area under plasma cup.
8063*	F	N	11A OSE	Top Thermal Shield	9-21-4	9-22-4	10-9-4	T. Gindorf H. VonDeldon	Drop of oil from crane hit shield in Bat. 3 area.
				OCT 12 1964					
10136	F	N	-	Temperature	11-28-4	12-21-4	1-8-5	D. Lewis	At launch +11 hours, temp. stabilizing 10° low.
10112	F	N	11	Thermal	12-28-4	12-28-4	4-26-5	D. Lewis	Block absorbtivity std. has not stepped.
				FEB 1 1965					
10156	F	N	11	Absorptivity Standard	2-13-5	2-18-5	5-25-5	T. Thostesen	Chnl. 432 switched before anticipated day.
10179	F		11FM1	Absorptivity Standard	5-5-5	5-5-5	OPEN	D. Lewis	Chnl. 433 should have stepped from DN 91 to 97.
10180	F	N	11FM1	Absorptivity Standard	5-17-5	5-18-5	7-21-5	D. Lewis	Chnl. 433 stepped DN 91 to 103. Predicted for 1st week June.
				MARCH 1. 1966					

RA-PTM P/FR SUMMARY

Page 56 of 112

Sheet 1 of 4

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33 SUBSYSTEM 16 – TAPE RECORDER									
326	F	C	16A1	Video Storage Subsystem	11-20-3	-	12-5-3	W. Trester	Open circuit T6 volt line.
101077	F	C	9W17	Wiring Harness (test)	11-5-3	11-5-3	4-29-4	W. Trester	Connector 16A1P1, Pin 21, failed to make reliable contact.
101051 V	F	C	16A1	Video Recorder Transport Assembly	11-6-3	11-6-3	5-20-4	W. Trester	Tape pack jammed as "start record" command was issued.
101079 V	F	C	16A4	Video Recorder Tower Supply Assembly	11-6-3	11-6-3	12-5-3	W. Trester	SP-11 transf. failure.
101080 V	-	C	-	Video Tape Recorder	11-8-3	11-11-3	12-9-3	W. Trester	Data track step return line opened during system testing.
3006	-	N	16A1	Video Storage	1-4-4	1-4-4	6-25-4	W. Trester	Start-Rec signals alternated between 5V & 6V DAS showed signs of ringing.
2776*	F	C	3A/6A 16A	Command / DE / Tape	1-7-4	1-11-4	5-2-4	J. Casani	Various systems malfunctions (Ref. 3A & 6A)
2779	F	C	16A	Video Storage	1-11-4	1-13-4	2-6-4	W. Trester	Stopped recording at end of data frame.
2780	F	N	16A	Video Storage	1-13-4	1-13-4	2-6-4	W. Trester	Power transients cause track changes.
3356	F	N	16A	Video Storage	1-16-4	1-17-4	2-6-4	W. Trester	Indicator lites pulsed on and off.
3360*	F	N	-	TV/DAS/VSS	1-22-4	1-22-4	7-22-4	Schneider Allen/Trester	Interface failures occurred.
3189	F	C	16A5	Video Tape Recorder	1-27-4	1-29-4	6-25-4	W. Trester	Intermittent relay.
3190	F	C	14A5	Video Tape Recorder	1-29-4	1-29-4	7-7-4	W. Trester	Q6 failed to fire.
3191	F	C	9W17	Wiring Harness	1-29-4	1-29-4	3-5-4	W. Trester	Conn. 16A3P1 intermittent.
648	F	C	16A1	Storage Transport	2-12-4	1-14-4	3-17-4	W. Trester	3 Screws worked loose during vibration.
101022 V	F	C	16A1	Video Storage	1-22-4	1-23-4	6-25-4	W. Trester	Multiple track changes occurred.
3399	F	N	16A	Video Storage	2-24-4	2-27-4	5-25-4	W. Trester	Tape machine stopped running before Agena separation occurred.
627	F	N	16A	Video Storage	2-26-4	3-4-4	3-12-4	W. Trester	Line 186 of picture 12 was found to have certain bad playback data

MARINER P/FR SUMMARY

Sheet 2 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 57 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 16 – TAPE RECORDER					
628	F	C	16A5	Video Storage	3-23-4	3-23-4	7-6-4	W. Trester	Record motor stopped running the second plane of FA vibration.
3441	F	N	16A	Video Storage	3-16-4	3-23-4	6-2-4	W. Trester	VSS spent better than 5½ hours operating in mode 1 condition.
3442	F	N	16 A	Video Storage	3-17-4	3-23-4	6-2-4	W. Trester	VSS able to record only 20 pictures; capable of 22.
3457	F	N	16	Video Storage	4-1-4	4-1-4	5-25-4	W. Trester	Data encoder began operation in mode 1 condition of mode 4/1 logic.
				APR 13 1964					
629	F	C	16A5	Video Storage	4-10-4	4-10-4	8-18-4	W. Trester	Launch mode relay reset on impact of the 200g shock in 2nd plane of test.
630	F	C	–	Video Storage	4-10-4	4-10-4	6-29-4	J. Stoker	System was exposed to abnormal high shocks in PER plane #3.
3477*	F	N	16A4	Module	4-14-4	4-15-4	6-29-4	F. Rhodes	Threads damaged in ctr. for mounting module to case V chassis.
				APR 27 1964					
631	F	C	16A5	Electronics #4 VSS	4-25-4	4-26-4	7-6-4	W. Trester	Turn on reset of launch mode failed to occur.
3098	–	C	16A1	Transport VSS	4-21-4	4-21-4	6-25-4	W. Trester	Two end of tape pulses occurred during playback end of tape test.
633	F	C	16A	Video Storage	5-1-4	5-2-4	6-25-4	W. Trester	Extra track change occurred while playing back across end of tape foil.
				MAY 11 1964					
3194	–	C	16A1	Transport of VSS	4-18-4	4-20-4	6-25-4	W. Trester	Two end of tape pulses occured during a playback end of tape test.
6755	F	C	16A	Video Storage	5-7-4	5-8-4	7-22-4	W. Trester	Recorder sys. chnl. change ckt. failed during thermal vacuum.
101064	–	C	16A	Video Storage	4-29-4	5-1-4	6-26-4	W. Trester	System stopped recording before record sequence was complete.
101082	F	C	16A	Video Storage	5-2-4	5-2-4	6-25-4	W. Trester	Track change ckts. failed to function during FA vibration.
634	–	C	16A1	Transport	5-15-4	5-21-4	7-6-4	W. Trester	Sliver of foreign material was observed in conn. 16A1J1.
101083	F	C	16A1	Video Storage	5-20-4	5-21-4	6-29-4	W. Trester	"Count Two & Stop" ckt. locked out at first end of tape.

MAY 25 1964

MARINER P/FR SUMMARY

Sheet 3 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 58 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 16 – TAPE RECORDER					
101084V	F	C	16A	Video Storage	5-22-4	5-22-4	7-11-4	W. Trester	Observed bit error rate is about 1 error per 5000 bits.
				JUN 8 1964					
7032	F	C	16A	Video Storage	6-3-4	6-3-4	7-1-4	W. Trester	Recorder inhibited itself at first end of tape instead of second EOT.
7050	F	N	16A	Video Storage System	6-6-4	6-8-4	7-10-4	J. Casani	Main booster regulator reset at 1108:59.
6058	F	C	16A	Video Storage	6-12-4	6-13-4	6-29-4	W. Trester	Stopped recording in picture II.
				JUN 22 1964					
646	F	C	16A1	VSS Transport	6-30-4	7-5-4	7-16-4	W. Trester	Multiple track change occurred during 5 day bit error tests.
647	F	C	9W17	VSS Case Harness Connector	6-30-4	6-30-4	7-15-4	W. Trester	Absence of playback signal indicated P/B motor not operating.
				JULY 9 1964					
6084	F	N	16A	Video Storage	7-30-4	7-7-4	7-22-4	W. Trester	Did not react to main booster simulator failure.
643	F	N	16A2	Video Storage	6-1-4	7-13-4	10-1-4	W. Trester	Upon receipt from SAF, the data encoder output NAND gate was open.
2694*	F	N	16	Tape Recorder	–	7-24-4	8-5-4	J. Casani	Second line of every two line sample picture has bad data.
644	F	C	16A1	VSS Transport	7-11-4	7-13-4	8-18-4	W. Trester	Track change failed to occur at the appointed time.
645	F	N	16	Video Storage System	7-10-4	7-13-4	8-18-4	W. Trester	Excessive high bit error rate and high no. of drop lock conditions.
2767*	F/O	C	20/16A	DAS - Tape Recorder	1-9-4	1-9-4	7-28-4 6-3-4	W. Trester W. Schneider	Out-of-tolerance pulses Re: Science and start and stop tape.
				AUG 7 1964					
6118	F	N	16	Video Storage	8-10-4	8-10-4	8-25-4	W. Trester	The End-Of-Tape circuitry has tendency to trigger event line to D/E.

MARINER P/FR SUMMARY

Sheet 4 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 59 of 112

* Interface

REPORT NO.	Flight OSE	Called Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 33				SUBSYSTEM 16 – TAPE RECORDER					
638	F	N	16A2	Video Storage	8-15-4	8-19-4	10-9-4	W. Trester	Reset level of the integrator monitor signal lower than spec.
				AUG 24 1964					
7117	F		16	Video Storage	8-27-4	8-28-4	OPEN	W. Trester	Only one D/E counter 3 event was observed during an encounter seq.
				SEPT 8 1964					
8075	F	N	16A5	Tape Recorder Elec.	10-3-4	10-5-4	10-6-4	W. Trester	VSS failed to change tracks during first systems test.
				OCT 12 1964					
7177	F	N	16A	Video Storage	11-27-4	12-23-4	2-12-5	W. Trester	Track change and a counter 3 event registered.
				FEB 1 1965					
10402	F	N	16A	Video Storage	7-29-5	8-11-5	8-31-5	W. Trester	Extra end of tape event observed in D/E event register #3.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 6

R = Returned by Project Engineer
X = Answered but not closed

Page 60 of 112

* Interface

REPORT NO.	Flight OSE	Called Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 20 – DATA AUTOMATION					
489	-	C	20A2	Science Subsystem Data Automat. System	10-24-3	11-5-3	2-10-4	W. Schneider	Flip-flop A/Module is faulty. Capacitor/ connections likely.
100264V	-	C	20A	Buffer Mem.	10-18-3	10-19-3	11-21-3	R. Cervin	Faulty diode.
2767*	F/O	C	20/16A	DAS - Tape Recorder	1-9-4	1-9-4	7-28-4 6-3-4	W. Trester W. Schneider	Out-of-tolerance pulses Re: Science and start and stop tape.
2772*	F	N	20A 7MG1	DAS - NAMC	1-10-4	1-13-4	1-18-4	W. Schneider G. Hooper	NAMC plug not "IN", caused narrow angle planet in view.
543	-	N	20A2 20A3 20A4	DAS	1-15-4	1-15-4	3-21-4	W. Schneider	11 kc oscillator failed.
3345	F	N	20A2 20A4	DAS Modules	1-14-4	1-14-4	3-17-4	W. Schneider	Harnesses extend too far outside cases.
3360*	F	N	20A/36A 16A	TV / DAS / VSS	1-22-4	1-22-4	7-22-4	Schneider Allen/Trester	Interface failures occurred.
3362	F	C	20A	Science DAS	1-21-4	1-22-4	3-21-4	W. Schneider	DAS issues improper start tape.
2628	F	N	20A1	Buffer	2-4-4	2-4-4	6-3-4	R. Cervin	20A1J1 & 20A1J2 failed continuity.
3372	F	N	20A3	NRT DAS	2-2-4	2-2-4	8-3-4	W. Schneider	Not transferring godd data.
3374	F	N	20A1	DAS Buffer	2-3-4	2-4-4	6-4-4	R. Cervin	Insert back out.
544	F	N	20A3	NRT Logic Module	1-29-4	1-30-4	8-19-4	W. Schneider	20A3A3G open diode or Xistor.
547	F	N	20A5	DAS T-R	1-9-4	2-3-4	5-5-4	J. Wolfe	Fuse improperly incorporated.
546	-	C	20A	DAS	2-22-4	2-25-4	7-15-4	W. Schneider	RT data words failed in thermal vacuum at high TA temp.
3394	F	C	20A	DAS	2-26-4	2-26-4	3-30-4	W. Schneider	DAS did not respond to ion chamber pulses.
100298V	F	N	-	Buffer Memory	1-3-4	1-31-4	5-5-4	R. Cervin	Switch core SW9 fails to switch. Appears to be shorted.
3413	F	N	20A	NRT-DAS/Tape/GTS	2-25-4	3-4-4	5-5-4	J. Casani	One line of picture had either erroneous or no AN sequence.

MARINER P/FR SUMMARY

Sheet 2 of 6

R = Returned by Project Engineer
X = Answered but not closed

Page 61 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 20 – DATA AUTOMATION					
100283V	F	N	20A	Blivot Assy.	11-18-4	12-19-3	4-17-4	R. Cervin	Body of resistor fractured.
100284V	F	C	20A	Blivot Assy.	11-21-3	12-19-3	4-17-4	R. Cervin	Body of resistor broken.
100285V	F	N	20A	Blivot Assy.	11-18-3	12-19-3	4-17-4	R. Cervin	Damaged solder seal.
100286V	F	N	20A	Buffer Memory	10-1-3	12-19-3	4-17-4	R. Cervin	Diodes rejected by UNIVAC in-process insp.
100289V	F	N	20A	Buffer Memory	12-10-3	12-19-3	4-17-4	R. Cervin	Holes in bodies of resistors.
100290V	F	N	20A	Buffer Memory	12-16-3	12-24-3	4-17-4	R. Cervin	Core switched on half pulses.
100300V	-	N	20A	Mariner "C"	10-2-3	1-3-3	4-17-4	D. Morgan	EM-1 would drop "one's" at nominal voltage.
100287V	F	C	20A	Buffer Memory	10-15-3	12-19-3	4-20-4	R. Cervin	Diodes have cracked bodies.
				MAR 11 1964					
2613	F	C	20A	Science DAS	3-6-4	3-12-4	8-28-4	W. Schneider	No readout of plasma probe or CRT appeared in DAS data printout.
3424*	F	C	20/DAS	CRT/DAS	3-5-4	3-12-4	8-28-4	W. Schneider	CRT data did not read out for the first run.
3425*	F	C	32/20	Plasma Probe/DAS	3-5-4	3-12-4	8-28-4	W. Schneider	Plasma probe data was not read out.
100288V	F	C	20A	Buffer Memory	11-16-3	12-19-3	4-20-4	R. Cervin	Three "open" diodes.
3426*	F	N	20/36	DAS/TV	3-7-4	3-12-4	7-15-4	W. Schneider	Narrow angle acquisition did not pass thru DAS/TV interface.
2614	F	C	20/34	DAS/U. V.	3-5-4	3-11-4	8-28-4	Schneider D. Margetts	Two U.V. partical calibrates. Data "A" absent; B&D are normal.
2645	F	N	20A5	DAS T/R	3-14-4 3-13-4	3-18-4	5-5-4	J. Wolfe	RTP fuse & T/R input ckt. burnt out. Fuse (RT) burnt out 3 times (Ser. #3)
101399V	F	C	20A5	DAS T/R	2-28-4	3-19-4	7-14-4	J. Wolfe	Zener diode voltage out of spec.
				MAR 23 1964					

MARINER P/FR SUMMARY

Sheet 3 of 6

R = Returned by Project Engineer
X = Answered but not closed

Page 62 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 20 – DATA AUTOMATION					
3461	F	N	20A	DAS	4-3-4	4-3-4	7-22-4	W. Schneider	DAS did not produce end of tape indicator bits in DATA.
2648	F	C	20A1	Buffer Memory	1-27-4	3-26-4	5-13-4	R. Cervin	Hi-Rel resistors did not meet JPL burn-in criteria.
				APR 13, 1964					
2653	F	C	20A2 20A4	Real Time DAS	4-7-4	4-13-4	8-18-4	W. Schneider	Intermittent operation observed at cold temp. & later at room temp.
3472*	F	N	20A/6A	Scan System/Mode 3 Command	2-26-4	4-9-4	5-13-4	J. Casani	Scan sys. cannot search because it is at wrong end of travel.
2620*	F/O	C	20A/36A OSE	Science T.V.	4-20-4	4-20-4	7-11-4	J. Allen	T.V. does not respond to shutter command from DAS.
				APR 27 1964					
100294V	F	N	20A	Buffer Memory	3-6-4	3-6-4	5-5-4	R. Cervin	Core at address 1275 switched on half current.
				MAY 11. 1964					
101387V	-	C	2-A	AND Inverter	-	5-18-4	6-24-4	J. Wolfe	No output per section 20F module test procedure.
				MAY 25 1964					
6034	F	N	20A	Data Automation	5-19-4	5-21-4	7-27-4	W. Schneider	Did not read out Z axis magnetometer data for several frames.
549	F	N	20A	AND Inverter 2-1	5-20-4	5-27-4	7-9-4	J. Wolfe	Q2 output (Pin #1) always at +6V level regardless of input.
101374 V	F	C	20	Xformer T Welded Module Assy.	5-25-4	5-25-4	7-9-4	J. Wolfe	T/S indicates open primary on T-2 (pins 3 to 5).
				JUN 8 1964					
[illegible]	[illegible]	[illegible]		[illegible] Encoder	5-26-4	5-26-4	7-2-4	J. Casani	GTS freq. loses RW sync. & PLL. Bit sync. sometimes shifts.
6051*	F	N	21A 20A	CRT/DAS	5-28-4	5-28-4	7-16-4	R. Rotter	CRT failed to go into calibrate during cruise calibrate sequence.
7033	F	N	20A	Data Automation System	6-3-4	6-3-4	7-22-4	W. Schneider	Data encoder switched by DAS to mode 2 and inhibited tape start.

MARINER P/FR SUMMARY

Sheet 4 of 6

R = Returned by Project Engineer
X = Answered but not closed

Page 63 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 20 - DATA AUTOMATION					
101386V	-	C	20A	DAS NRT	6-4-4	6-4-4	7-27-4	J. Wolfe	No signal output from pin 14. T/S indicates diode CR-13 open.
101376V	-	C	20A3	DAS NRT 4FF	6-8-4	6-8-4	7-27-4	J Wolfe	Incorrect output waveform FF "B" T/S indicates CR-1 open.
101377V	-	C	20A3	DAS NRT 4FF	6-8-4	6-8-4	7-27-4	J. Wolfe	Incorrect output waveform FF "D" T/S indicates CR-2 open.
101378V	-	C	20A3	DAS NRT "AND" Inverter	6-8-4	6-8-4	7-14-4	J. Wolfe	Incorrect output fall time pin 14 of module.
6067	F	N	20A	DAS	6-12-4	6-15-4	7-27-4	W. Schneider	CRT Cal indicator bit came up in DAS data several times out of seq.
101384V	F	C	20A3	DAS NRT	6-10-4	6-10-4	7-27-4	J. Wolfe	No output on FF "C". T/S indicates CR-6 open.
101385V	F	C	20A3	DAS NRT	6-13-4	6-13-4	7-14-4	J. Wolfe	No output when switch 67 is to position 3. (Pin 8). Xistor Q-1 shorted.
				JUN 22 1964					
101383V	-	N	20A3	DAS NRT and Inverter	6-17-4	6-17-4	7-22-4	J. Wolfe	Output pin 14 fails on Adj. to fail test.
				JULY 9 1964					
6076	F	N	20A	Science RT DAS	7-3-4	7-4-4	7-27-4	W. Schneider	CRT was not set out of calibrate with WAA after 16 frames of Cruise calib.
2687	-	C	20A3	DAS NRT	6-27-4	7-14-4	7-16-4	J. Wolfe	Data and Sync. to tape machine out of spec.
2688	-	C	20A3	DAS NRT	7-5-4	7-14-4	7-28-4	J. Wolfe	Digital Data from ESR-1-5 not shifting out.
2689	-	N	20A3	DAS NRT	7-14-4	7-15-4	7-22-4	J. Wolfe	Weveral wires of harness were broken during T/A vibration test.
9712*	F	N	20A 36A	DAS and TV	-	7-15-4	9-13-4	R. Rotter	Last 30 bits of each line of 10.7KC TV data were ones.
9713*	F	N	20A 36A	DAS and TV	-	7-15-4	8-18-4	J. D. Allen	Last two lines of 10.7KC TV data were all ones.
2657	F	C	20A	DAS	7-11-4	7-13-4	7-27-4	W. Schneider	Function P2 failed high.
2655	F	N	20A3	DAS	6-24-4	7-13-4	7-27-4	W. Schneider	68pf capacitor on function BWY where 220 pf should be.

MARINER P/FR SUMMARY

Sheet 5 of 6

R = Returned by Project Engineer
X = Answered but not closed

Page 64 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 20 - DATA AUTOMATION					
2656	F	N	20A2	DAS	7-6-4	7-13-4	7-27-4	W. Schneider	Frame count flip-flops had narrow margins.
9761	F	C	20A1	Buffer Memory	6-19-4	6-29-4	8-18-4	R. Cervin	Diode CR87 appears to be open above 100°F.
9785	F	C	20A3	DAS NRT	7-23-4	7-23-4	7-29-4	J. Wolfe	Mode 3 and inhibit scan commands generated in error.
9762	F	C	20A3	DAS NRT	7-30-4	7-31-4	10-6-4	W. Schneider	Frame counter DFC-1 stays at reset condition (ie., fails to set).
6112*	F	N	20/6	DAS/Data Encoder	7-29-4	7-29-4	10-9-4	W. Schneider	Science Data came with the PN sequence one bit early.
				AUG 7 1964					
9784	-	N	20A3	DAS NRT	8-5-4	8-13-4	8-18-4	J. Wolfe	After switch to mode 2, data frame counter returned to count of 10 not 11
9765	F	N	20A2	DAS NRT	8-18-4	8-18-4	8-25-4	W. Schneider	Intermittant operation of RT data output.
				AUG 24 1964					
				SEPT 8 1964					
9783	F	N	20A4	RT DAS	9-16-4	9-16-4	10-2-4	W. Schneider	Wire from 20A4B 1D2 to 20A4B2F7 was missing.
				SEPT 21 1964					
8052	F	N	20A2	CRT Module	9-15-4	9-16-4	10-8-4	W. Schneider	One Kaynar insert loose.
9782	F	N	20A4	Real Time DAS	9-18-4	9-18-4	10-2-4	W. Schneider	Extra Read Scan pulse observed at DAS output during word 5.
9774	-	N	20A2 20A4	Real Time DAS	9-21-4	9-22-4	10-28-4	W. Schneider	Trapped radiation marginal; interface marginal; scan had extra rdout pulses.
8060	F	-	20A2	SUPERSEDED BY PFR 8074 DAS Module	9-30-4	9-30-4	VOIDED	W. Schneider	Kaynar insert projects above surface of module by approx. 0.010.
2658	F	C	20A2	Real Time DAS	8-15-4	8-17-4	10-30-4	W. Schneider	Science data indicates science calibration sequences during encounter.
9801	F	N	20A4	Real Time DAS	9-17-4	-	10-28-4	W. Schneider	Abnormal contour of magnetometer Z axis output.

MARINER P/FR SUMMARY

Sheet 6 of 6

R = Returned by Project Engineer
X = Answered but not closed

Page 65 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				**SUBSYSTEM 20 — DATA AUTOMATION**					
9802	F	C	20A2	Real Time DAS	9-29-4	9-30-4	10-30-4	W. Schneider	Problem observed in margin test during temperature transition.
9803	F	C	20A	Real Time DAS	9-28-4	8-1-4	11-24-4	W. Schneider	Computer indicated wrong outputs during margin test at room temp.
9804	F	N	20A4	Real Time DAS	10-3-4	106-4	10-28-4	W. Schneider	22K resistor incorrectly connected from 2 + 6v supply.
				OCTOBER 12 1964					
3587	F	N	20A4	DAS RT Logic	10-6-4	-	10-28-4	W. Schneider	DAS frame count did not completely reset.
				OCTOBER 27 1964					
7172	F	C	20A3	DAS NRT Logic	10-21-4	11-2-4	3-16-5	W. Schneider	Problems occurred during encounter sequence of countdown Part I.
9771	F	C	20A2 20A4	DAS RT	-	11-7-4	12-2-4	W. Schneider	Frame cntr. would not count above 2^{10} @ 167° F.
9772	F	N	20A2 20A4	DAS RT	11-3-4	11-7-4	12-2-4	W. Schneider	All trapped radiation channels read incorrectly @ 167° F.
				NOV 16 1964					
5957	F	C	20A2	DAS RT Logic	12-3-4	12-11-4	10-27-5	W. Schneider	A number of short DAS frmes.
				DEC 21 1964					
				FEB 1 1965					
2667	F	C	20A2B	RT DAS Side B	2-12-5	2-18-5	10-27-5	W. Schneider	Science indicates occasional errors caused by marginal F/F's.
2666	F	C	20A3	NRT DAS Side A	2-26-5	3-2-5	11-1-5	W. Schneider	Failed to sequence properly Oscillator failed.
9321	F	N	20A	DAS	5-27-5	5-28-5	8-31-5	D. Ney	Frame count started approx. 0406 instead of 0000
2660	F	C	20A2	Real Time DAS	8-17-5	8-19-5	10-27-5	D. Ney	Step plasma pulses occur intermittently
10403*	F	N	33A 20A	Magnetometer/DAS	7-14-5	8-26-5	11-15-5	W. Fawcett	Noise bursts observed on magnetometer.

MARCH 1 1966

MARINER P/FR SUMMARY

Sheet 1 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 66 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				**SUBSYSTEM 21 — COSMIC RAY TELESCOPE**					
536	-	C	21A1	Cosmic Ray Telescope	12-13-3	12-16-3	2-10-4	R. Holman	Readout word "A" became excessively noisy.
2768	-	C	21A1	Cosmic Ray Telescope	1-9-4	1-9-4	3-18-4	R. Holman	Cosmic Ray Tel. Data translated in error.
3412	F	C	21A	CRT	2-25-4	3-2-4	6-4-4	R. Holman	CRT requires reverse polarity calibrate set pulse to go into calib.
538	-	C	21A1	Cosmic Ray Telescope	3-3-4	3-5-4	6-4-4	R. Holman	Readout of all words excessively noisy after second plane of vibr.
540	-	C	21A1	Cosmic Ray Telescope	3-3-4	3-5-4	3-10-4	R. Holman	Screws holding face of case III had fallen out or were loose.
				MAR 11 1964					
541	-	C	21A1	Cosmic Ray Telescope	3-12-4	3-13-4	6-4-4	R. Holman	Data printed out showed no indication of coincidence between D1,D2,D3.
3424*	F	C	21/20	CRT DAS	3-5-4	3-12-4	8-28-4	W. Schneider	CRT data did not read out for the first runs.
				MAR 23 1964					
5852	-	N	21A1	Cosmic Ray Telescope	3-27-4	3-28-4	7-20-4	R. Holman	Readouts of all words were excessively noisy.
3454	F	N	21A1	Isolation Box	3-31-4	4-1-4	7-11-4	R. Holman Rotter	CRT appears to be excessively susceptible to noise.
				APR 13 1964					
5856	-	N	21A1	Cosmic Ray Telescope	4-13-4	4-21-4	7-16-4	R. Holman	Readout of all words were excessively noisy.
				APR 27 1964					
5857	-		VOID	Superseded by 101460V	4-21-4	4-21-4	VOID	R. Holman	D3 detector became noisy after 50 hrs. of thermal vacuum test.
5859		C	21A1	Cosmic-Ray Telescope	5-9-4	5-12-4	[illegible]	R. Holman	Instrument was not reading out words A and B.
6020*	-	N	21A1	Cosmic-Ray Telescope	5-14-4	5-14-4	7-16-4	R. Holman	Cal.set input measures 14K to gnd.
				MAY 25 1964					

MARINER P/FR SUMMARY

Sheet 2 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 67 of 112

* Interface

REPORT NO.	Flight OK	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 21 - COSMIC RAY TELESCOPE					
101460 V	-	N	21A1	Cosmic Ray Telescope	-	4-21-4	7-22-4	R. Holman	D3 detector became noisy after 50 hrs. of in-place thermal vacuum test
				JUN 8 1964					
6051*	F	N	21A 20A	CRT/DAS	5-28-4	5-28-4	7-16-4	R. Rotter	CRT failed to go into calibrate during cruise calibrate sequence.
9711	F	N	21A1	Cosmic Ray Telescope	6-1-4	6-2-4	7-16-4	R. Holman	CRT Xmits overflow pulses at 36/sec. instead of 3/DAS frame.
5854		N	21A1	Cosmic Ray Telescope	6-12-4	6-16-4	7-16-4	R. Holman	Word B was reading out incorrectly.
5860		N	21A1	Cosmic Ray Telescope	6-16-4	6-18-4	7-16-4	R. Holman	Word B was reading out incorrectly.
				JUNE 22 1964					
5861		N	21A1	Cosmic Ray Telescope	6-22-4	6-23-4	7-16-4	R. Holman	Word B was reading out incorrectly.
				JULY 9 1964					
5863		C	21A1	Cosmic Ray Telescope	7-10-4	7-14-4	7-22-4	R. Holman	Detector D2 appears to have gone bad
6092	F	N	21A1	Cosmic Ray Telescope	7-12-4	7-13-4	10-28-4	G. W. Earle	Hole punctured in Mylar window of the CRT.
5828		C	21A1	Cosmic Ray Telescope	7-17-4	7-29-4	8-21-4	R. Holman	Instrument appears to have a detector failure.
101796		C	21A1	Cosmic Ray Telescope	7-12-4	7-14-4	8-21-4	R. Holman	D2 detector broke down after 10 hrs. of thermal-vacuum.
101797		C	21A1	Cosmic Ray Telescope	7-13-4	7-15-4	8-21-4	R. Holman	D2 detector broke down after several hrs. in thermal-vacuum.
				AUG 7 1964					
7094	F	N	21A1	Mylar Window	8-5-4	8-5-4	9-13-4	M. Goble	Mylar window covering the sensor was hit and dented.
5829	-	N	21A1	Cosmic Ray Telescope	8-6-4	8-7-4	8-18-4	R. Holman	It appears that the D3 detector has failed.
3391	F	C	20A	DAS-CRT	2-25-4	2-25-4	7-17-4	R. Holman	DAS didnot put CRT in calibrate mode during cruise.

AUG 24 1964

MARINER P/FR SUMMARY

Sheet 3 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 68 of 112

* Interface

REPORT NO.	Flight OK	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 21 - COSMIC RAY TELESCOPE					
8827	F	N	21A1	Cosmic Ray Telescope	8-12-4	8-12-4	10-1-4	R. Holman	Slight dimple in mylar cover.
				SEPT 8 1964					
				SEPT 21 1964					
9776	F		21A1	Cosmic Ray Telescope	-	9-21-4	OPEN	R. Holman T. Theis	Detector #2 has high count rate that is overflowing.
9779	F	C	21A1	Cosmic Ray Telescope	9-28-4	9-30-4	10-13-4	R. Holman	Didn't reset to normal mode by DAS after cruise calibrate sequence.
8066	F	N	21A1	Cosmic Ray Telescope	9-18-4	9-18-4	10-30-4	R. Holman	DS-82-032-4 screw heads too large to stick in indicated holes.
5853	F	N	21A1	Cosmic Ray Telescope	10-2-4	10-6-4	10-30-4	R. Holman	DI count rate increased during temp./vacuum.
				OCT 12 1964					
7170	F	N	21	CRT Cooling Fin	10-28-4	10-29-4	10-30-4	R. Holman	Potting compound in mylar covering mounting holes.
				NOV 16 1964					
				FEB 1 1965					
10409	F		21A	Cosmic Ray Telescope	1-10-5	9-21-5	OPEN	R. Holman	PHA peak shifted down three channels.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 2

R = Returned by Project Engineer
X = Answered but not closed

Page 69 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 24 - COSMIC DUST DETECTOR					
2461	-	N	24A	Cosmic Dust Detector	12-12-3	12-12-3	1-10-4	D. Schofield	No provision for setting to zero.
3373	F	C	24A1	Cosmic Dust Detector	2-2-4	2-2-4	7-22-4	D. Schofield	Double hits occurred.
				MAR 11 1964					
3435	F	N	24A1	Cosmic Dust Detector	3-13-4	3-14-4	7-16-4	D. Schofield	Pulse height and "hit" problems require investigation.
3455	F	C	24A1	Cosmic Dust Detector	4-1-4	4-1-4	7-22-4	D. Schofield	Reset register would not reset.
				APR 27 1964					
3162	F	N	24A1	Cosmic Dust Detector	4-21-4	4-20-4	6-23-4	D. Schofield	P.H.A. limits changed after vibration.
3163	-	N	24A1	Cosmic Dust Detector	4-9-4	5-5-4	6-23-4	D. Schofield	P.H.A. limits on T/A unit changing during system test on MC-1.
				MAY 11 1964					
6031*	F/O	N	24A1	Cosmic Dust Detector/OSE	5-20-4	5-21-4	7-16-4	R. Rotter	CD continuously increments in cumulative & reset rgstr. when OSE conn.
7026	F	N	24A1	Cosmic Dust Detector	5-26-4	5-26-4	6-23-4	R. Spehalski D. Schofield	Interference occurred between bus structure & 2 solder lugs on detector.
7027	F	N	24A1	Cosmic Dust Detector	5-26-4	5-26-4	7-22-4	D. Schofield	No torque valve is called out for tightening 4-40 socket screw.
				JUN 8 1964					
7057	F	C		Cosmic Dust Detector	6-18-4	6-18-4	7-14-4	D. Schofield	PHA reset did not reset to zero but was clamped @ 0200 (octal).
7067	F	C	24A1	Cosmic Dust Detector	6-25-4	6-29-4	7-15-4	D. Schofield	PHA output was intermittently hung up at 0200 (octal).
7069	F	N		Cosmic Dust Detector	6-29-4	6-30-4	8-18-4	D. Schofield	Cannon "D" Connector mounting studs not torqued to proper value.
6082	F	N	24A1	Cosmic Dust	7-2/3-4	7-3-4	7-22-4	D. Schofield	Picks up counts freq. during test operations excessive elec. sensitivity.
				AUG 7 1964					

MARINER P/FR SUMMARY

Sheet 2 of 2

R = Returned by Project Engineer
X = Answered but not closed

Page 70 of 112

*Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 24 - COSMIC DUST DETECTOR					
8803	F	N	24A1	Cosmic Dust Detector	9-3-4	9-15-4	10-2-4	D. Schofield	Small blister in penetration film.
				SEPT 21 1964					
3596	F	N	24A1	Cosmic Dust Detector	10-15-4	10-15-4	12-11-4	D. Schofield	PHA readout "Hangs Up" in 0200.
9302	F	N	24A1	Cosmic Dust Detector	11-3-4	11-3-4	12-11-4	J. Hagey	Failed to operate and give TR voltage indications.
				NOV 16 1964					
				FEB 1 1965					
10111	F	N	24A1	Cosmic Dust Detector	3-5-5	3-5-5	10-27-5	D Schofield	No proper coincidence of penetration & direction observed in flt. to date.
9317	F	C	24A1	Cosmic Dust Detector	4-15-5	4-15-	10-12-5	D. Schofield	Pulse ht. analy. not accumulating counts.
10407	F		24A1	Cosmic Dust Detector	9-2-5	9-16-5	OPEN	D. Schofield	Multiple film penetration events.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 1

R = Returned by Project Engineer
X = Answered but not closed

Page 71 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
SUBSYSTEM 25 – TRAPPED RADIATION DETECTOR									
479	F	C	-	Trapped Radiation Detec.	11-25-3	11-26-3	1-14-4	D. Schofield	Unit exhibited abnormally high counting rate.
3395	F	N	25A	Trapped Radiation	2-25-4	2-26-4	4-10-4	D. Schofield	PN detectors had high counting rate with no radiation stimulus.
				MAR 11 1964					
100047 V	F	C	25A1	Detector "D"	6-10-4	6-19-4	7-14-4	D. Schofield	High counting rate & then no counting rate intermittent.
100049 V	F	C	25A1	GM Detectors	6-15-4	6-19-4	7-14-4	D. Schofield	Det. "B" completely quit counting. Det. "C" underwent continuous discge.
3168	-	C	25A1	Trapped Rad. Detector	4-7-4	4-10-4	10-26-4	D. Schofield	D_1 D_2 counting high rates with no source installed.
6101	F	N	25A1	Trapped Rad. Detector	4-19-4	7-19-4	8-21-4	D. Schofield	With low temperatures, the TRD +8v. read 8.3+v.
100044 V	F	N	-	Sui/Mar C-64 Experiment	10-28-3	10-31-3	3-19-4	D. Emerick	(POV) appeared to be intermittent.
				AUG 7 1964					
6117	F	C	25A1	Trapped Rad. Detector	8-7-4	8-7-4	8-25-4	D. Schofield	Following shake, high energy Alpha Detector (PN 2) did not count.
				AUG 24 1964					
				SEPT 21 1964					
8816	F	C	25A1	Detector "A" & "C"	9-12-4	9-28-4	10-9-4	D. Schofield	Detector "A" changed 8%. Detector "C" changed 18%.
				OCTOBER 27 1964					
				FEB 1 1965					
9316	F	N	25A1	Trapped Radia. Det.	2-15-5	2-15-5	3-3-5	D. Schofield	Count rate of D/D2 is higher than normal.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 2

R = Returned by Project Engineer
X = Answered but not closed

Page 72 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 26 – ION CHAMBER					
521*	-	C	26A1	Ion Chamber Temperature Transducer	12-23-3	12-26-3	5-14-4	G. McCreight	12 Millivolt deflection during TA tests.
2210	-	C	26A1	Ionization Chamber Geiger Muller Tube	12-28-3	12-30-3	1-10-4	L. Despain	Data became erratic during vibration.
404	-	N	26A1	Science Subsystem Ionization Chamber	9-11-3	9-30-3	11-24-3	L. Despain	Transducer failure.
1742	-	C	26A1	Science Subsystem Ionization Chamber	11-9-3	11-12-3	11-25-3	L. Despain	Vendor replaced 6 diodes.
406	-	N	26A1	Science Subsystem Ionization Chamber	10-26-3	11-12-3	11-18-3	L. Despain	Hi voltage bleeder resistor added.
1741	-	N	26A1	Science Subsystem Ionization Chamber	10-17-3	11-12-3	11-18-3	L. Despain	Hi voltage bleeder resistor added.
2208	F	N	26A1	Science Subsystem Ionization Chamber	2-3-4	2-10-4	3-10-4	L. Despain	Momentary stress level during vibr.
				MAR 11 1964					
3546	F	C	26A1	Ion Chamber	6-24-4	6-24-4	7-22-4	L. Despain	An insulation washer found loose. Cover screws seem wrong.
				JUL 9 1964					
6100	F	C	26A1	Ion Chamber	7-17-4	7-19-4	8-21-4	L. Despain	10311 tube has produced intermittent bursts of high counts.
				AUG 7 1964					
8013	F	N	26A1	Ion Chamber	7-31-4	8-5-4	9-13-4	H. Weaver	Ion Chamber ball was bumped with a wrench.
2201	F	C	26A1	Ion Chamber	8-14-4	8-15-4	8-21-4	L. Despain	No output from Ion Chamber interval channel.
				AUG 24 1964					
408	-	C	26A1	Ion Chamber	8-20-4	8-21-4	8-28-4	L. Despain	Gas leakage from sphere assy.
9722	-	C	26A1	Ion Chamber Sensor	8-28-4	9-1-4	9-24-4	L. Despain	Calibration constant increasing ~1% 15 days.
				SEPT 8 1964					

MARINER P/FR SUMMARY

Sheet 2 of 2

R = Returned by Project Engineer
X = Answered but not closed

Page 73 of 112

*Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 26 – ION CHAMBER					
9723	-	N	26A1	Ion Chamber	9-2-4	9-2-4	9-13-4	L. Despain	Two transistors in Geiger Tube Preamp were burnt out.
8051	-	C	26A1	Ion Chamber	9-14-4	9-14-4	10-6-4	L. Despain	T/R Voltages about one-half what they should have been.
9726	-	N	26A1	Ion Chamber	9-3-4	9-3-4	10-1-4	L. Despain	Output from 10311 GM Tube vanished after sudden pressure increase.
9787	-	N	26A1	Ion Chamber Ball	---	9-6-4	10-1-4	L. Despain	Slight rattle heard inside ball.
				SEPT 21 1964					
8810	F	N	26A1	Experimental GM Tube	9-15-4	9-15-4	10-6-4	L. Despain	Geiger counting at high rate without radioactive sources present.
8068	F	N	26A1	Ion Chamber	9-22-4	9-22-4	10-13-4	H. Anderson	Kaynar insert galled to stainless steel screw.
8815	-	N	26A1	Ion Chamber GM Tube	9-8-4	9-8-4	10-27-4	H. Anderson	Count rate rose from normal rate of 0.5/sec. to 1.5/sec.
				OCTOBER 12 1964					
				FEB 1 1965					
10155	F		26A1	Ion Chamber GM Tube	Approx. 2-9-5	2-16-5	OPEN	L. Despain	50% higher counting rate. Detector malfunctioning.
9805	F		26A1	Geiger-Muller Tube	2-15-5	2-17-5	OPEN	L. Despain	Tube rate increased by factor of 3 during life test.
10103	F		26A1	Ion Chamber GM Tube	3-17-5	3-17-5	OPEN	L. Despain	Tube rate registered zero. Interval appeared infinite.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 74 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 31 – SCAN					
597	F	C	31A3	Planetary Scan Sensor	11-30-3	11-14-3	12-19-3	R. Wong	Broken transistor lead Q5.
520	F	N	31A1	Planetary Scan Sensor	11-13-3	11-14-3	11-19-3	R. Wong	Alum. Chopper Blocks Insulated photo cells unshielded.
598	F	N	31A3	Planetary Scan Sensor	11-13-3	11-14-3	12-19-3	R. Wong	Capacitor installed reversed.
2602	-	N	31A1	Planet Sensor Optics	1-22-4	1-23-4	1-27-4	R. Wong	Retaining ring worked loose.
2604	-	C	31A3	Planetary Scan	3-13-4	1-30-4	8-18-4	R. Wong	Clock 0 set when set and reset was false.
2629	F	C	31A3	Scan Electronics	2-11-4	2-12-4	2-18-4	R. Wong	Connector failed continuity.
				MAR 11 1964					
525	-	N	31A	Scan Subsystem	2-13-4	3-11-4	3-18-4	R. Wong	Two scan reversals without hitting the limit switches were observed.
				MAR 23 1964					
2610	F	N	31A1	Planet Scan System	3-23-4	3-24-4	3-30-4	R. Wong	Initial bench tests showed no output from Y axis preamp.
2609	F	N	31A1	Planet Scan System	3-21-4	3-23-4	3-31-4	R. Wong	No output was obtained from either X or Y axis pre-amp.
2606	-	N	31A3	Electronics	3-28-4	3-31-4	4-6-4	R. Wong	2N708 Xistors installed where 2N910 Xistors were specified.
2607	-	N	31A3	Electronics	3-30-4	3-31-4	4-6-4	R. Wong	2N708 Xistors installed where 2N910 Xistors were specified.
2608	-	N	31A1	Preamplifier	2-26-4	3-31-4	4-6-4	R. Wong	Chassis is deformed, and terminal boards separated form chasis.
2670	F	C	31A2	Pwr Supply & Electronics	4-30-4	5-1-4	6-3-4	R. Wong	IN649A diodes CR8 & CR9 were cracked.
2676	F	N	31A	Planetary Scan	4-18-4	4-27-4	5-15-4	R. Wong	Subsystem acquired planet with no stimulus.
2677	F	N	31A	Preamp.	4-25-4	4-25-4	5-15-4	R. Wong	Wiring to pins reversed.
2679	F	N	31A1	Preamp.	4-25-4	4-25-4	5-22-4	R. Wong	Entire cover anodized. Desire method to insure cover is grounded

MARINER P/FR SUMMARY

Sheet 2 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 75 of 110

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 31 – SCAN					
2680	F	N	31A1	Preamp	4-25-4	4-25-4	5-15-4	R. Wong	Alodine not adquately removed from chopper block mounting.
2681	F	N	31A1	Preamp	4-25-4	4-25-4	5-15-4	R. Wong	High level chopper lamp drive routed too close to X & Y preamp inputs.
2682	F	N	31A2	Power Supply	4-25-4	4-25-4	5-15-4	R. Wong	+ 6V-2 supply does not reach full voltage under full load at -40°C.
				MAY 11 1964					
6018	F	N	31A1	Scan Sensor	4-12-4	5-12-4	6-3-4	R. Wong	Conn. 31A1J1 orientated 180° from correct position per drawing.
				MAY 25 1964					
2674	F	C	31A1	Pre Amp & Sensor Assy.	5-28-4	6-3-4	6-23-4	R. Wong	Focal length of optics does not meet specifications.
6060	F	N	31A3	Platform cover	6-14-4	6-14-4	7-10-4	R. Rotter	Stimulus lights circuits for NAMG & TV failed. 1st in DC, then in AC.
				JUNE 22 1964					
2671	-	C	31A1	Optic and Sensor Assy.	6-20-4	6-25-4	6-30-4	R. Wong	Sensor sensitivity was reduced.
7063	F	N	7MG1	Narrow Angle Mars Gate	6-27-4	6-29-4	7-22-4	R. Rotter	No data was within 0v. to 6v. limits.
				JULY 9 1964					
2672	F	C	31A3	Scan Electronics	7-5-4	7-7-4	7-14-4	R. Wong	+20v supply in the OSE rack was shorted.
9720	F	C	31A3	Scan Electronics	7-23-4	7-27-4	8-3-4	R. Wong	Short existing in unit 31A3 S/N 6.
				AUG 7 1964					
7098	F	C	31	Planetary Scan	7-24-4	8-7-4	10-30-4	R. Wong	Lost wide angle acquisition.
9728	-	C	31A1	Optics and Preamp.	8-14-4	8-14-4	8-21-4	R. Wong	Signal at preamp was noisier than normal.
				AUG 24 1964					

MARINER P/FR SUMMARY

Sheet 3 of 3

R = Returned by Project Engineer
X = Answered but not closed

Page 76 of 110

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 31 – SCAN					
5627*	-	N	1A	Life Test	9-12-4	9-22-4	10-2-4	E. Floyd	Contaminant collecting surfaces exhibited quantities of oily substance.
8[illegible]	F	N	31	Planetary Scan	10-2-4	10-2-4	10-22-4	R. Wong	Unit failed to track when mode was initiated during life test.
				OCTOBER 12 1964					
359[illegible]	F	N	31A	Scan Platform	10-8-4	10-8-4	10-26-4	R. Wong	Went clockwise for 15 secs. before going CCW.
				OCTOBER 27 1964					
				FEB 1 1965					
26[illegible]	F	N	31A1	Sensor and Preamp.	2-12-5	2-16-5	3-16-5	R. Wong	Failed to operate properly during tracking mode
9320	F	N	31A	Inhibit Switch Assembly	5-27-5	5-2[illegible]-5	8-12-5	E. Floyd	Insertion of pin failed to inhibit scan motor
				MARCH 1 1965					

MARINER P/FR SUMMARY

Sheet 1 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 77 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 32 - PLASMA PROBE					
00237 V	-	C	32A2	Plasma Probe	11-25-3	11-25-3	2-26-4	R. Graham	Low output of measurement chain.
00725 V	-	C	32A3	Digital #1	10-31-3	10-31-3	3-5-4	R. Graham	FF #9 logic not switching.
00726 V	-	C	32A3	Digital #2	11-2-3	11-2-3	3-3-4	R. Graham	H.V. selection register not gating.
00727 V	-	C	32A3	Digital #2	11-2-3	11-2-3	3-7-4	R. Graham	No correct gate to sel. reg Matrix #2.
00728 V	-	C	32A2	Signal Processor	11-4-3	11-4-3	3-5-4	R. Graham	Sync. Detector no function, no input.
00729 V	-	C	32A4	H.V. Modulator	11-7-3	11-7-3	3-5-4	R. Graham	Not being gated.
00730 V	-	C	32A3	Digital #1	11-4-3	11-4-3	3-5-4	R. Graham	Digital section not stepping on pulse.
00894 V	-	C	32A	Plasma Probe	11-20-3	1-9-4	7-15-4	R. Graham	Distortion of H.V. at 32A4-J3.
00741 V	-	C	32A4 32A3	Plasma Proce H. V. Modulator	1-16-4	1-16-4	5-13-4	R. Graham	H.V. output not proper voltage.
00829 V	-	C	32A3	Digital #1	1-22-4	1-22-4	5-13-4	R. Graham	FF-1 failed to trigger.
00830 V	-	C	32A3	Digital #3	1-22-3	1-22-3	3-6-4	R. Graham	M2 scaler not rec. triggers.
00896 V	-	C	32A4	Power Converter	2-6-4	2-7-4	4-[illegible]-4	R. Graham	Pwr. supply voltages very low.
3411	F		32A	Plasma	2-25-4	3-2-4	VOID	R. Graham	One of three channels has low output during calibrate.
				MAR 11 1964					
3425*	F	C	32/20	Plasma Proce / DAS	3-5-4	3-12-4	8-28-4	[illegible]	Plasma probe data was not read out.
				MAR 23 1964					
00897 V	-	C	32A3	Digital #2	3-21-4	3-23-4	5-13-4	R. Graham	Hi-volt wave form for energy level were very low.

MARINER P/FR SUMMARY

Sheet 2 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 78 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 32 - PLASMA PROBE					
100898V	-	C	32A2	Preamplifier	2-25-4	3-23-4	7-15-4	R. Graham	Low gain in preamp. #3.
100899V	-	N	32A3	Digital #2	-	3-23-4	7-15-4	R. Graham	Hi-voltage calibrate reading erratic.
100900V	-	N	32A4	Power Converter	3-20-4	3-23-4	4-13-4	R. Graham	Fuse blows on power turn on when connected to science OSE.
3456	F	N	32A1	Plasma	4-2-4	4-2-4	6-26-4	R. Graham	Plasma input direct access disconnected, data read wrong after X axis shake.
				APR 27 1964					
100303V	F	C	32A2	Signal Processor	3-5-4	3-6-4	5-13-4	R. Graham	Measurement chain not functioning properly. Xistor Q231 isn't normal.
100305V	F	C	32A3	Digital #2	3-26-4	3-26-4	5-13-4	R. Graham	Step M2(14) H.V. level missing. Probably present from turn-on.
100308V	F	C	32A3	Digital #2	4-20-4	4-20-4	5-13-4	R. Graham	H.V. step M2(6) did not turn on. Worked before conformal coating.
100309V	F	C	32A4	H V. Rectifier	4-21-4	4-22-4	5-13-4	R. Graham	10KV H.V. step (16) exhibited discountinuities near peak of waveform.
101398V	F	N	32A4	Plasma Probe	4-20-4	4-21-4	5-23-4	R. Graham	Kaynar insert failed to hold while removing screw.
100304V	F	N	32A4	H.V. Modulator	3-25-4	3-25-4	6-2-4	R. Graham	4KC Oscillator not functioning. Adjustment resistor open.
100306V	F	N	32A4	Power Supply	4-15-4	4-15-4	6-2-4	R. Graham	System did not turn on with circuit load on power supply.
100307V	F	N	32A4	H.V. Modulator	4-16-4	4-17-4	6-2-4	R. Graham	High voltage levels and waveforms were not proper.
101397V	F	C	32A1	Sensor	4-22-4	4-23-4	7-15-4	R. Graham	Pinon hi-voltage plug broken during normal handling.
				MAY 11 1964					
100310V	F	C	32A3	Digital #2	4-28-4	4-28-4	7-22-4	R. Graham	Calibrate diamond did not turn on. Q302 did not turn on.
6019	F	N	32A4	Power Supply	5-13-4	5-14-4	6-2-4	R. Graham	Appears to have a blown fuse. Probable cause is turn on surge current.
				MAY 25 1964					

MARINER P/FR SUMMARY

Sheet 3 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 79 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 32 - PLASMA PROBE					
7028	F	N	32A1	Sensor	5-26-4	5-26-4	7-8-4	R. A. Graham	Not complete when delivered. Bracket is missing.
				JUNE 8 1964					
6061	F	N	32A	Plasma	6-12-4	6-15-4	6-29-4	R. Graham	Plasma data indicated higher readings than have been observed before.
				JUN 22 1964					
7058	F	N	32A	Plasma	6-18-4	6-18-4	7-15-4	R. Graham	Plasma data higher than normal.
7061	F	N	-	Protective Cover	6-10-4	6-12-4	7-8-4	R. Graham	Protective cover interferes with Solar Panel when panel opened.
3552	F	C	32A1	Plasma Probe	6-27-4	6-27-4	7-17-4	R. Graham	Plasma high voltage has been arcing.
				JULY 9 1964					
6091	F	N	32A1	Plasma Probe	7-13-4	7-13-4	10-27-4	G. Earle	Plasma operated in hi humidity with hi voltage on for some hours.
593	F	C	32	Plasma Probe	7-21-4	7-22-4	9-13-4	R. Graham	Temperature calibration reading twice normal.
				AUG 7 1964					
7110	F	C	32	Plasma Probe	8-16-4	8-16-4	9-24-4	R. Graham	Data numbers are high during high voltage steps.
				AUG 24 1964					
7121	F	C	32	Plasma Probe	8-26-4	8-27-4	10-12-4	R. Graham	Data numbers are high during high voltage steps.
				SEPT 8 1964					
7129	F	N	32A1	Plasma Probe Sensor Cup	9-6-4	9-6-4	10-27-4	M. Goble	Arcing near high voltage cable connection to sensor.
				SEPT 21 1964					
9306	F		-	Plasma Cup	11-19-4	11-20-4	OPEN	A. Graham	Apparent high voltage ARC-over during HI voltage on

DEC 21 1964

MARINER P/FR SUMMARY

Sheet 4 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 80 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 32 - PLASMA PROBE					
10132	F		32A1, A2, A3, A4	Plasma	12-6-4	12-21-4	OPEN	R. Graham	H.V. decreased and the Plasma Data decreased also.
595	F	N	32A3	Plasma Probe	Before 12-4	12-31-4	1-[illegible]-5	R. Graham	Hi-voltage read zero on highest voltage steps.
596	F	C	32A4	Plasma Probe	Unknown	1-1[illegible]-5	3-16-5	R. Graham	Resistor R329 found "open".
1552	F	C	32A	Plasma Probe Electonics	1-[illegible]0-5	1-[illegible]1-5	3-16-5	R. Graham	Hi-volt. is 50% of normal on Step [illegible] and less than 50% on others.
				FEB 1 1965					
				MARCH 1 1965					

MARINER P/FR SUMMARY

Sheet 1 of 1

R = Returned by Project Engineer
X = Answered but not closed

Page 81 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division				SUBSYSTEM 33 - HELIUM MAGNETOMETER					
555	-	C	33A1	Magnetometer Sensor	5-14-4	4-18-4	6-8-4	D. Norris	Helium absorption cell failed to ignite at power turn-on.
				MAY 25 1964					
3541	F	N	33	Magnetometer	6-18-4	6-19-4	7-15-4	D. Norris	Z-axis analog to digital converter stuck.
7065	F	N	33	Magnetometer	6-25-4	6-29-4	7-15-4	D.Norris	Z-axis data is intermittent.
				Jul 9 1964					
				JUL 24 1964					
6121	F	C	-	Science	8-17-4	8-18-4	9-3-4	D. Norris	Magnetometer excessively noisy in all 3 axes.
				SEPT 8 1964					
7123	F	C	33	Magnetometer	9-2-4	9-2-4	9-23-4	D. Norris	In monitoring analog output, alt. sine field noted only when data exmit
				SEPT 21 1964					
556	F	N	33A1	Magnetometer Sensor	9-16-4	9-21-4	10-27-4	D. Norris	R.F. matching networks appeared to be functioning poorly.
				OCT 12 1964					
				FEB 1 1965					
495	F	N	33A1	Magnetometer Sensor	5-22-5	5-24-5	10-27-5	D Norris	Magnetometer sensor had no output
10403*	F	N	33A 20A	Magnetometer/DAS	7-14-5	8-26-5	11-15-5	W Fawcett	Noise bursts observed on magnetometer
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 1

R = Returned by Project Engineer
X = Answered but not closed

Page 82 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 34 - U. V. PHOTOMETER					
100357 V	-	C	34A1	Sensor Unit	1-22-4	1-22-4	3-24-4	D. Margetts	High voltage breakdown inside of phototube container.
				11 MARCH 1964					
2614*	F	C	20/34	DAS/U. V.	3-5-4	3-11-4	8-28-4	W. Schneider	Two UV partial calibrates. Data "A" absent: B & D are normal.
				23 MARCH 1964					
100358 V	F	C	34A1	UV Photometer Sensor	3-25-4	3-30-4	10-27-5	D. Margetts	Failure shorted first two amp. Xistors and a biasing diode of first diode.
				27 APRIL 1964					
6035	F	N	34A	UV Photometers/DAS	5-19-4	5-21-4	4-26-5	D. Margetts	One channel of U. V. reads noisy with NC stimulus.
100365 V	F	C	34A1	UV Sensor	5-22-4	5-27-4	10-27-5	D. Margetts	Detector A turned off with detector B & detector C did not switch on.
				8 JUNE 1964					
2690	F	N	-	UV Photometer	5-22-4	6-1-4	4-26-5	D. Margetts	No analog or DAS data observed from instruments B channel.
100363 V	F	C	34A1	UV Sensor	5-28-4	5-30-4	4-26-5	D. Margetts	DAS NRT resetting - appeared to be noise coming from photometer.
				22 JUNE 1964					

MARINER P/FR SUMMARY

Sheet 1 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 83 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 36 - T. V. SUBSYSTEM					
502	F	C	TV (36A)	(Encoder) TV	11-4-3	11-5-3	2-18-4	J. Allen	Failure in encoder Assy. 36A5.
599	-	N	36A1	TV Optics	11-14-3	12-4-3	4-28-4	R. Becker J. Allen	Keenserts loosened during assy.
505	F	C	36A6	Power Supply	12-11-3	12-12-3	6-23-4	J. Allen	Q11 would not turn off.
529	F	C	36A1	TV Optics	N/A	12-13-3	3-3-4	R. Becker J. Allen	Gold plate became tarnished.
3360*	F	N	36A	TV DAS / VSS	1-22-4	1-22-4	7-22-4	Schneider Allen/Trester	Interface failures occurred.
3361	F	N	36A	TV	1-20-4	1-22-4	5-5-4	J. Allen	Insufficient lite input.
504	F	C	36A6	TV	11-11-3	11-12-3	11-18-3	J. Allen	Transformer replaced.
501	F	C	36A6	TV	11-9-3	11-11-3	11-18-3	J. Allen	C-10- replaced.
1550	F	C	36A4	TV	10-27-3	10-29-3	11-18-3	J.Allen	Part replaced.
506	F	C	36A	Camera Head	1-29-4	1-31-4	3-30-4	J. Allen	Q2 and Q3 shorted.
507	F	C	36A2	Camera Head	2-12-4	2-12-4	5-5-4	J. Allen	Anode lead broken; inoperative Xistor.
508	F	C	36A2	Camera Head	2-1-24	2-12-4	7-14-4	J. Allen	Capacitor C10 became low resistance loading +40vdc supply to +15.8vdc.
3369	F	N	36A	TV	1-28-4	1-28-4	5-5-4	J. Allen	Word sync. was bad in TV systems.
3370	F	C	36A	TV	1-29-4	1-29-4	6-2-4 5-7-4	J. Allen	An analog video was out.
3390	F	C	36A	TV	2-24-4	2-25-4	5-5-4	J. Allen	TV generated planet in view signal with no applied stimulus.
3406	F	C	36A	TV	2-26-4	3-2-4	7-10-4	J. Allen	TV shutter may be opened upon power turn-off.
509	-	C	36A	TV	-	3-26-4	3-18-4	J. Allen	Planetary acquisition sig. initiated by TV when no stimulus was applied.
510	F	C	36A1&2	Camera Head	2-28-4	2-19-4	7-6-4	J. Allen	Vidicon tube failed.

MARINER P/FR SUMMARY

Sheet 2 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 84 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 36 - T. V. SUBSYSTEM					
511	F	C	36A1&2	Camera Head	3-3-4	3-4-4	7-6-4	J. Allen	Vidicon tube failed.
512	F	C	26A1&2	Camera Head	3-6-4	3-7-4	7-[illegible]-4	J. Allen	Vidicon tube failed after 410 sec. after start of TA tape.
				MAR 11 1964					
3416	F	N	36A	TV	2-25-4	3-4-4	5-5-4	J. Allen	Module occasionally drops bits.
3426*	F	N	20/36	DAS /TV	3-7-4	3-12-4	7-15-4	W. Schneider	Narrow angle acquisition command did not pass thru DAS/TV interface.
513	F	C	36A4	Deflection & Control	3-18-4	3-18-4	5-5-4	J. Allen	Output amplifier in horiz. sweep ckt. would not operate.
				MAR 23 1964					
2616	F	N	36A	Television	3-2-4	3-3-4	5-5-4	J. Allen	After 4 hours of operation, there was a complete loss of video.
				APR 13 1964					
2620*	F/O	C	20A36A OSE	Science TV	4-20-4	4-21-4	7-11-4	J. Allen	TV does not respond to shutter Command from DAS.
				APR 27 1964					
515	F	C	36A3	Video Chnls. & Computer	4-17-4	4-18-4	6-4-4	J. Allen D. Bell	Q39 could not be biased into conduction.
516	F	C	36A4	Detection & Control	4-21-4	4-21-4	6-23-4	J. Allen D. Bell	System Frame rate running asynchronously.
518	F	N	36A1 36A2	Camera Head	4-28-4	4-29-4	6-23-4	J. Allen D. Bell	Camera head fell from bench to floor. Corner dented.
				MAY 11 1964					
6014	F	N	36A1 36A2	Optics & Camera Head	5-11-4	5-11-4	7-10-4	J. Allen J. Jodele	No locking action on one insert adjacent to connector.
				MAY 25 1964					

MARINER P/FR SUMMARY

Sheet 3 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 85 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 36 - T. V. SUBSYSTEM					
2669	F	N	36A1 36A2	Pre-Amplifier	5-20-4	5-23-4	6-24-4	J. Allen	R 47 broken due to pressure applied during adjustment.
7023	F	C	36A	Television	5-21-4	5-21-4	7-10-4	J. Allen	When increasing light intensity T.V. logic will not give fast command.
7025	F	C	36A	Television	5-21-4	5-25-4	7-14-4	J. Allen	Degradation and loss of video when operated at 49V rms.
6029	F	C	36A	Television	5-16-4	5-18-4	7-8-4	J. Allen	T.V. would not sw. to fast shutter when stimulated by collimated light.
				JUN 8 1964					
550	F	C	36A1 36A2	Camera Head - Optics	5-20-4	5-22-4	6-23-4	J. Allen R. Becker	Shutter failed to actuate when drive pulses were applied.
				JUN 22 1964					
7060	F	N	36A	Television	6-18-4	6-18-4	7-10-4	J. Allen	On pad lights did not stimulate T. V. PIV.
				JUL 9 1964					
2692	F	C	36A2	Camera Head	6-30-4	7-14-4	8-18-4	J. Allen D. Bell	A loss of sensitivity and elec. De-focusing at temp. ± -100C.
6090	F	C	36A1 36A2	Camera Head & Optics	7-10-4	7-10-4	7-22-4	J. Allen	Shutter has unusual sound and T.V. went to fast shutter with only 50v.
9712*	F	N	20A 36A	DAS and TV	-	7-15-4	9-13-4	R. Rotter	Last 30 bits of each line of 10.7KC. TV data were ones.
9713*	F	N	20A 36A	DAS and TV	-	7-15-4	9-18-4	J. Allen	Last two lines of 10.7KC TV data were all ones.
2693	F	C	36A	TV Power Supply	7-16-4	7-21-4	8-18-4	D. Bell	No video output when system was turned on after shock.
7074	F	C	36A2	Camera Head	7-18-4	7-18-4	9-24-4	D. Bell	1)No +10v. on direct access cable. 2)Unable to hear shutter solenoid.
7083	F	N	36A2	Camera Head	7-23-4	7-23-4	8-18-4	D. Bell	TV gives several black lines through center of picture.
6111	F	N	36	Television	7-29-4	7-30-4	8-21-4	J. Allen	During Thermal Vacuum Test, small white spots in picture.
				AUG 7 1964					

MARINER P/FR SUMMARY

Sheet 4 of 4

R = Returned by Project Engineer
X = Answered but not closed

Page 86 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 32				SUBSYSTEM 36 - T. V. SUBSYSTEM					
2696	F	C	36A1	Camera Head	8-5-4	8-4-4 (sic)	9-24-4	J. Allen	+10 V. DC supply output shorted to sys. common.
2695	F	C	36A1	Optics	7-28-4	7-29-4	9-3-4	R. Becker J. Allen	Shutter did not latch after second pulse.
7104	F	N	36	Television	8-12-4	8-12-4	9-13-4	D. Bell	Last 6 words of every TV line are all ones.
7105	-	N	36	Television	8-13-4	8-13-4	9-13-4	D. Bell	7 words all ones at end of every line of TV.
2697	F	N	36A2	Preamp & Vidicon	-	8-7-4	8-21-4	J. Allen	A dark line extends across top of picture.
				AUG 24 1964					
8023	-	N	36A1 36A2	Television	8-20-4	8-20-4	9-19-4	J. Allen	Stand off on connector loose preventing installation.
				SEPT 8 1964					
8050	-	N	36A	Television	9-13-4	9-13-4	10-1-4	J. Allen	TV pictures were darker at the bottom than at the top.
				SEPT 21 1964					
				OCTOBER 12 1964					
6141	F	C	36A3	Television	10-12-4	10-14-4	10-25-4	J. Allen	Could not be forced into fast shutter.
7145	F	N	36	Television	10-9-4	10-9-4	10-25-4	D. Bell	Above 2 volts video when in max. gain and no lights on.
				OCTOBER 27 1964					
531	F	C	36A1	TV Optics	1-22-5	1-27-5	5-17-5	R. Becker J.D.Allen	Shutter failed to pass FA thermal. Vacuum test.
				FEB 1 1965					
2698	F	N	36A	Television	4-12-5	4-29-5	10-27-5	J. Allen	Slight degradation in picture quality.
9322	F	C	36A	Television	6-2-5	6-9-5	10-27-5	J. Allen	Word 31 not giving consistant data.

MARCH 1 1966

MARINER P/FR SUMMARY

Sheet 1 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 87 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
OSE									
2339	0	N	-	Breakout Box Cable Connector	11-1-3	11-16-3	1-29-3	L. Michals	Insert in Bendix connector rotated 15° from true "Y"
2346	F/O	N	RWVSG 1 #4	Telecommunication RWV & GTS OSE	11-19-3	11-20-3	12-5-3	Lowe Baluff	Rate 100 sync. signal wrong polarity from GTS OSE to PWV OSE.
477	-	N	-	2.4 KC & 400 Power Supply	10-16-3	10-21-3	10-24-3	G. Gentosz	Overvoltage on Vidicon.
2442	0	N	103	OSE Racks	12-9-3	12-9-3	2-3-4	H. Phillips	Wheels broken during movement from Lab.
3008	0	C	-	Ground Telemetry Decommutator	1-6-4	1-10-4	2-3-4	D. Drogosz	Goes out of sync.
1585	0	N	1A2 1A3	Exact Function Generatr and RMS Meter	-	1-10-4	2-21-4	A. Spear	Generator distorted; Meter no measure signals.
3347	0	N	-	Science OSE	1-14-4	1-15-4	2-3-4	R. Rotter	Ch. 65 & 66 Voltages reversed.
3349	0	N	-	Timing Isolation Unit	1-14-4	-	6-1-4	A. Engel	-12 volts intermittent on all signals.
3354	0	N	-	Science/Tape Recorder	1-17-4	1-18-4	10-30-4	Schneider	Connection of TPS box affects buffer to tape.
3106	0	C	-	Shipping Container	1-22-4	1-24-4	2-6-4	J. Jodele	Retaining pads deformed & displaced.
3107	0	N	-	Shipping Container	1-20-4	2-24-4	2-7-4	J. Jodele	Retaining pads badly damaged.
2287	0	N	-	Gnd. Tele. Sys.	1-27-4	2-28-4	3-10-4	D. Drogosz	Paper advance SW. wouldn't work.
2289	0	N	-	Gnd. Tele. Sys.	1-28-4	1-28-4	3-4-4	D. Drogosz	Osillations on output.
2290	0	N	-	Gnd. Tele. Sys.	1-27-4	1-28-4	3-11-4	D. Drogosz	Paper advance doesn't work.
2291	0	N	-	Gnd. Tele. Sys.	1-28-4	1-28-4	3-4-4	D. Drogosz	No output for long period of time.
3[illegible]	0	N	-	A/C OSE, Pwr. OSE,D/E	2-6-4	2-7-4	5-13-4	J. Casani	Cone angle meter shows offset values.
3368	0	N	-	Science 150, Box	-	1-28-4	2-10-4	R. Rotter	+Y set position shorted.
3384	0	N	-	CC&S OSE	2-5-4	2-7-4	2-26-4	D. Ross	Blockhouse panel malfunctions.

MARINER P/FR SUMMARY

Sheet 2 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 88 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
OSE									
2292	0	N	199A12	Gnd. Telemetry Decomm.	-	2-19-4	3-4-4	D. Drogosz	DCI output indicates not in sync.
2293	0	N	1993A4	Bit Error Rate Monitor	2-18-4	2-19-4	6-3-4	D. Drogosz	BERM. counts bit errors during playback.
2294	0	C	199A12	Gnd. Telemetry Decomm.	2-19-4	2-20-4	2-26-4	D. Drogosz	Pwr. supply out of regulation.
2295	0	N	199A12	Gnd. Telemetry Decomm.	2-19-4	2-20-4	3-17-4	D. Drogosz	Rate I counter would not reset.
3015	0	N	-	Command OSE, GVDC Pwr. Supply	2-23-4	2-24-4	3-30-4	A. Spear	OSE indicator lamps failed to function.
2296	0	N	-	Gnd. Telemetry Subsys.	2-24-4	2-25-4	3-17-4	D. Drogosz	Intermittent short between signal common & gnd.
2297	0	N	-	Timing Isolation Unit	2-24-4	2-25-4	3-30-4	H. Phillips	-15 volt signal between GTS common and earth gnd.
3026	0	C	-	Gnd. Telemetry DI Amplifier	2-27-4	2-27-4	4-8-4	D. Drogosz	Loss of R-F derived telemetry tones noted at GSE.
3028	0	N	-	Gnd. Telemetry Franklin Printer	2-27-4	2-28-4	6-3-4	D. Drogosz	Unable to turn AC power off switch inoperative.
2283	0	N	-	Mincom G-107 Tape Transport	2-24-4	2-26-4	4-13-4	D. Drogosz	Track #5 very noisy.
2284	0	N	-	Gnd. Telemetry Subsys.	2-24-4	2-29-4	4-6-4	G. Earle	No provision in test procedure for gts demod. & decom. changes.
2298	0	N	199A1	Gnd. Telemetry Subsys. VCO Unit	2-24-4	2-29-4	3-17-4	D. Drogosz	Nominal 0.5 Cps. signal appears on input of ch. 11 VCO.
3013	0	N	197RC1	RWV Tape Recorder & Oscill.	2-25-4	2-25-4	3-24-4	A. Lowe	Tape reader reads an error approx. every 20 readings.
3022	0	N	1A5A8	Flight Command OSE Trigger Shaper	2-8-4	2-28-4	4-22-4	A. Spear	Decoder inhibit light failed to operate.
3392	0	N	6A 1ZOW1	Science Cable	2-26-4	2-26-4	3-5-4	H. Phillips	Connectors JB06-14-55 and JB06-14-5 SX reversed.
1445	0	N	8A2	Pyro Sys. Test Console Elapsed Time Panel	2-25-4	3-2-4	4-4-4	M. Moore	Meter 8A2 running 10% fast.
2226	0	C	199A8 04	Ground Telemetry Dynamics Amplifier	2-26-4	3-2-4	4-13-4	D. Drogosz	Lost two lines of video during video playback portion of sys. test.
3407	0	N	-	Science OSE	2-26-4	2-28-4	10-30-4	R. Rotter	Numerous false indication of plane-in-view observed on CDS printer.

MARINER P/FR SUMMARY

Sheet 3 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 89 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
3408	O	N	-	Attitude Control OSE	2-24-4	2-28-4	4-13-4	Petralia Casani/Scott	A floating shield resulted in many erroneous indications of light stim.
3409	O	N	-	Data Encoder OSE	2-25-4	3-2-4	5-15-4	C. Edwards	Line printer log indicated spurious DE events.
3023	O	N	-	RWV Variable OSE	2-28-4	3-2-4	5-1-4	A. Lowe	OSC. output amplitude would vary causing ES sign. to change in freq.
3024*	F/O	N	3A4 103RC1	Command & OSE	2-29-4	3-2-4	7-7-4	S. Spear T. Cocca	False locks and bit sync. yo-yoing are noted.
3783	O	N	197RC1	RWV Tape Punch	3-2-4	3-5-4	3-24-4	A. Lowe	Every tenth character on punched tape was blank.
2548	-	N	OSE	GTS/DE/DAS	1-7-4	1-7-4	1-29-4	J. Casani	GRS cannot maintain sync.
				MAR 11 1964					
1250*	F/O	N	OSE 3A	Flight Command PTM OSE and Flight Subsys.	3-8-4	3-9-4	4-6-4	W. Earl	Command test console set up to send commands by unauthorized personnel.
2227	O	N	199RC1	Gnd. Telemetry Printer	3-9-4	3-9-4	VOID	D. Drogosz	Printer printed a line of erroneous data.
2229	O	C	199RC1	Gnd. Telemetry Printer	3-10-4	3-10-4	4-13-4	D. Drogosz	Printer printed improper chls. missed chls. that should have been printed.
2231	O	N	199RC1	Franklin Printer	3-9-4	3-9-4	4-27-4	R. Balluff	Fuse continues to blow. Drum fails to rotate.
2299	O	N	199	Systems Printer Power Supply	3-9-4	3-10-4	4-13-4	D. Drogosz	AC fuse on front panel continually blows.
3417	F	N		Science OSE		3-5-4	5-27-4	R. Rotter	Cosmic dust detector OSE issuing continuous calibrate signal.
2300	O	N	199	Remote Printer	3-15-4	3-16-4	4-29-4	D. Drogosz	Ribbon reverse solenoid burned.
3420	O	N	9W 102W2P1	Case 6 Direct Access Cable	3-2-4	3-11-4	4-30-4	J. Schantzen	Did not have pin "W" jumpered to pin "X" at connector 9W2P1.
3421	O	N	102	Radio OSE	3-7-4	3-11-4	8-10-4	S. Burks	60 cps ripple on all radio direct access functions monitored at OSE.
3433	O	N	5A	CC & S	3-8-4	3-13-4	4-16-4	N. Herman	Master timer speed-up pulses unable to be inserted from OSE.
3434	O	N	5A	CC & S	3-8-4	3-13-4	7-6-4	N. Herman	Unable to be completely inhibited from the OSE.

MARINER P/FR SUMMARY

Sheet 4 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 90 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
3761	F/O	N	121	OSE Cosmic Ray Telescope	-	3-12-4	7-22-4	Schutz	OSE provides different signals to CDS than specified on ckt. sheets.
				MAR 23 1964					
3437	O	N	199RC	Ground Command VCO & Control	3-14-4	3-14-4	4-10-4	A. Lowe	Ground detector at RWV does not lock to signal.
5672	-	N	-	Shipping Container	3-20-4	3-23-4	4-29-4	R. Fisherq	Bonding on some of the polyurathane isolators had failed.
5673	-	N	-	Shipping Container	3-23-4	3-23-4	4-29-4	R. Fisher	Bonding on polyurathane isolators had failed and were bruised.
2051	O	N	107	Lo-Boy Press. Unit	3-31-4	4-3-4	4-21-4	J. Petralia	Exterior is dirty; pressure gauges full of water.
3772	O	N	197RC1	RWV Tape Punch Logic	3-30-4	3-31-4	4-29-4	A. Lowe	Intermittent drop-out of a punch char. following transmission of comm.
3785	O	N	197RC1	RWV D.E.I. Receiver	3-30-4	3-31-4	6-8-4	A. Lowe	Intermittent distortion of the receiver video output.
5801	O	N	102	Radio OSE	3-16-4	4-3-4	7-22-4	S. Burks	Number of spurious birdies noted on SC-8b spectrum analyzer.
2615	O	C	-	Science	3-16-4	3-24-4	4-28-4	R. Rotter	Fuses blown in real time, DAS, Magnet solar plasma, cosmic dust.
				APR 13 1964					
6800	O	N	-	Vibration Test Fixture	4-10-4	4-13-4	5-20-4	M. Lamers	During Torsional vibration of PTM, shake fixture broke.
1229	O	N	-	Flight Command OSE	4-14-4	4-14-4	5-13-4	A. Spear	During test, smoke pured from AMP; capac. was in pcs. & bubbling.
3465*	-	C	7A	Canopus Tracker Sk, A/C OSE	4-6-4	4-7-4	5-6-4	W. Benjamin	OSE indic. inability of canopus trk to acquire simu. canopus stimulus.
3466	O	N	120RC4	Science OSE	4-6-4	4-6-4	6-2-4	R. Rotter	3 of 4 cooling fans were jammed due to lack of inlet screens.
3467	O	N	120RC5	Plasma Stimulus	4-6-4	4-6-4	7-22-4	R. Rotter	Stimulus does not function properly
3468	O	N	120RC5	Scan Planet in View	4-6-4	4-6-4	5-5-4	R. Rotter	Module persistently malfunctions fails to indicate plane-in-view.
3469	O	N	109VA1	Umbilical Adapter	1-20-4	4-9-4	6-4-4	W. Pierce	Coax cables in umbilical adapt exhibit excessive lossed.

MARINER P/FR SUMMARY

Sheet 5 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 91 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
3474	O	N	109VA1	Umbilical Adapter	1-20-4	4-9-4	6-4-4	R. Rotter	Coax Cables exhibit excessive losses. Caused err.readings of pwr.
1189	O	N	107	A/C OSE Lo-Boy Pressure Unit	4-2-4	4-13-4	6-13-4	Courville Koch	Improper & careless handling of LO-Boy contamination of flight gas.
2620*	F/O	C	30A 36A OSE	Science T.V.	4-20-4	4-21-4	7-11-4	J. Allen	TV does not respond to shutter command from DAS.
6037	F	N	31	Isolation Box	5-22-4	5-22-4	6-9-4	R. Rotter	Failed to produce sync. signal to science OSE when turned on.
3479	O	N	102RC-4B6	Radio Rack Con. 4 Modulator Control Panel	4-20-4	4-21-4	6-24-4	S. Burks	Modulation Sig. cannot be adjusted to proper level; intermit. cond.
3481	O	N	197RC1	Ground Command SUPERSEDES P/FR 003485 Sys. Aux. Panel	4-21-4	4-21-4	7-16-4	A. Lowe	Modulation from GCD to radio became intermit. causing trans. loss.
				APR 27 1964					
3348	F/O	N	C1 197R	RWV 561 TEK Scope & 5A1 Pre-amp	11-19-3	11-21-3	1-30-4	A. Spear	Isolation transformer not install.
7001	O	N	120RC4	Isolation Transformer	4-27-4		5-20-4	F. Schutz	Primary & Secondary shields shorted together in 15 amp. Xformer.
6007	O	N	108N3A	Pyro.Direct Access Cable	4-23-4	4-24-4	5-20-4	H. Phillips	Cable SN-2 has open connection on pins M to M on the cable.
6006	O	N	103WC1	Command Test Cable	4-22-4	4-22-4	5-20-4	H. Phillips	Shield & return wires in cable SN-2 are shorted together.
6005	O	N	104JB1	Junction Box	4-22-4	4-23-4	5-20-4	H. Phillips	Request that documentation be revised for reverse polarity.
6004	O	N	104JB1	Junction Box	4-23-4	4-24-4	5-25-4	H. Phillips	MT-7 & DC-26 Command Lines found to be interchanged.
3485	O		-	VOIDED - SUPERSEDED BY P/FR No. 3481 Ground Command	4-22-4	4-23-4	Void	A. Lowe	Modulation from ground command to radio interrupted.
1514	-	N	20A	Shipping Container Electronic Assy.	12-30-3	12-31-3	2-7-4	R. Fisher	Container cracked in several places.
3490*	F	N	5A	CC&S	4-18-4	4-28-4	7-6-4	N. Herman	While inhibited, two counts were pickd. up on OSE pre-set counter.
3491	F	C	-	Tele. Communications	4-23-4	4-23-4	7-2-4	J. Casani	When DC-25 was sent, GTS could not lock up.
7002	O	N	120RC4	DAS Control Panel	4-28-4	4-28-4	5-21-4	R. Rotter	Science not sending or receiving proper bit & data pulses to GT.

MARINER P/FR SUMMARY

Sheet 6 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 92 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
7003	O	N	103RC1	Command Programmer Bay	4-28-4	4-29-4	5-13-4	A. Spear	Gnd. command subsys. Xmission monitoring didn't function properly.
3475	O	N	-	D/E OSE & CC&S OSE	4-6-4	4-16-4	6-4-4	Apel/Ross	Resetting of CC&S cone angle commands resulted in appar.false indic.
7004	F/O	N	109JB1	Junction Box	4-29-4	4-29-4	6-30-4	T. Meyer	Internal and external power order lines reversed.
6008	F/O	N	109JB1	CC&S	4-27-4	4-27-4	6-17-4	H. Phillips	Necessary to interchange leads on term. 11 & 12 of STC J Box 109JB1.
6009*	F	N	4A13	Battery Charger	4-27-4	4-27-4	7-6-4	K. Dawson	Pri. sys. voltage maintained 17V by batt. charger oper. in boost.
3494	O	N	104RC1 96	Power OSE	4-20-4	4-21-4	6-18-4	L. Packard	Power OSE multimeter S/N 3, excessively slow in approaching null.
3495	O	N	104RC1 A6	Power OSE	4-20-4	4-21-4	6-18-4	L. Packard	Pwr. OSE printer S/N 4 was malfunctioning.
3496	O	N	-	Gnd. Telemetry. Decomm.	5-2-4	5-2-4	6-8-4	R. Merritt	Decomm. failed to identify the 410 & 430 decks;repeated 400 nos.
				MAY 11 1964					
501	O	C	197RC1	Phase Shift Keyer	5-5-4	5-5-4	6-8-4	A. Lowe	Unable to send commands. Keyer in modulator failed.
7008	O	N	105WC1	CC & S OSE Cable	5-8-4	5-8-4	6-8-4	H. Phillips	OSE lite indicated contact closure; printer indicated no closure.
EN-RA 7052	O	C	107	Lo-Boy Charging Unit	5-8-4	5-12-4	5-25-4	M. Goldfine K. Zeltmaier	Lo-Boy left outside; rained upon and subjected to undesirable environ.
502	O	N	199	Ground Telemetry	5-4-4	5-4-4	7-14-4	R. Merritt	Mixed signal shifted 180° in phase. Causes loss of GTS sync.
7005	O	N	104	Pwr. OSE & Cabling	4-30-4	5-1-4	6-2-4	J. Schantz	Misunder. of kinetic sw.-OSE indicator resulted in reversal of orders.
7007	O	N	109JB1	Umbilical Junction Box	5-8-4	5-8-4	6-19-4	H. Phillips	Found inhibit current to CC & S reversed.
6006	F/O	N	103WC1	Cable OSE	5-12-4	5-12-4	- -	H. Phillips	Cable not per print. Connector 1C0 JB1P4 keyed wrong.
3017	F/O	N	107A2	Pressure Switch J-Box	5-12-4	5-12-4	5-25-4	J. Petralia	J Connector on Box is a 12-10-S. Should be 12-8-S.
7009	O	N	109UA1	Umbilical Adapter	5-11-4	5-12-4	7-11-4	H. Phillips	Pyro arm safe and pin puller safe light won't work.

MARINER P/FR SUMMARY

Sheet 7 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 73 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
7010	O	N	109JB1	Umbilical Junction Box	5-11-4	5-11-4	5-25-4	Wm. Woods	Exposed 110 VAC terminals unmarked and unprotected. Writer shocked.
1452	O	N	-	Pyrotechnic Console Connector Panel	[illegible]	[illegible]	[illegible]	[illegible] Osborn	[illegible]
1440	O	N	108RC1	Pyrotechnic Console	5-14-4	5-15-4	5-27-4	M. Moore	Excessively high resistance readings of squib circuits.
6020*	F/O	N	21A1	Cosmic Ray Telescope	5-14-4	5-14-4	7-16-4	R. Holman	Cal. reset input measures 16 ohms to ground. Cal.set in. measures 14k Ω.
6021	F/O	N	109JB1	Umbilical J-Box	5-11-4	5-12-4	6-3-4	H. Phillips	During A/C checkout, it was necessary to disconnect shield returns.
3507*	F/O	N	-	Data Encoder or GTS	5-15-4	5-14-4	7-27-4	W. Apel	20 secs. after PIP's shut off, rates 2,3, & 4 lost sync.
3508	O	N	-	Ground Telemetry	5-15-4	5-15-4	6-19-4	W. Apel	GTS printers indicate zero for 8 & one for 9 in units secs. col.
3512	O	N		Franklin Printer GTS	5-16-4	5-16-4	6-4-4	D. Drogosz	Ribbon drive gear shift solenoid burned up.
7014	O	N	3A6 120RC	Visacorder	5-15-4	5-15-4	6-9-4	H. Eyerly	No ultra-violet analog signal to visacorder.
7015	O	N	109JB1	Systems Test Junction Box	5-18-4	5-18-4	6-2-4	H. Phillips	Schematics for 120W1, 109JB1, & 109-W1 show reversal of buffer output & buffer
6750	O	N	103RC1	Command OSE	5-19-4	5-20-4	7-6-4	A. Spear	When man. start is pushed, an event is registered on OSE as well as CDS
				MAY 25, 1964					
3519	O	N	-	GTS T/M Demodulator	5-25-4	5-25-4	7-27-4	W. Apel	Lost lock about 3 minutes after DC-15 was xmitted.
7016	O	N	120RC2	TV Monitor Console	5-18-4	5-18-4	7-[illegible]-4	H. Eyerly	OSE unable to use signal being sent from isolation box.
7017	O	"	104RC2 104RC1	Power/DIS-Computer	5-18-4	5-19-4	6-3-4	[illegible]	4A17 booster voltage signal sent to computer DIS on lines Y & Z.
7018	O	N	1A16	Data Encoder OSE OSE Junction Box	5-19-4	5-19-4	6-9-4	W. Apel	Umbilical junction wiring error in OSE Junction Box.
7021	O	N	199RC3	GTS Console Model 6122 DC Amplifier	5-20-4	5-20-4	7-11-4	R. Balluff	Data Encoder word sync. developed low frequency oscillation.
7022	O	N	120RC2	TV Control Console Science Pwr. supply	5-21-4	5-21-4	6-8-4	H. Eyerly	2400 cycles power too low in voltage

MARINER P/FR SUMMARY

Sheet 8 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 74 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
7024	O	C	120RC-3A1	Clock Display Unit	5-21-4	5-21-4	7-13-4	H. Eyerly	Display creates transients that produce errors on real time.
7029	O	N	-	Isolation Box	5-26-4	5-26-4	6-23-4	H. Eyerly	A-Axis analog shorted to Gnd. & 50 cycle shorted to 100 cycles.
6031*	F/O	N	24A1	Cosmic Dust Detector/DSS	5-20-4	5-21-4	7-16-4	R. Rotter	CD continuously increments in cumulative & reset register when OSE conn.
6032	O	N	120JB1	Science Isolation Box	5-20-4	5-21-4	6-9-4	R. Rotter	Bit sync. card had low output. Resulted in frequent bit errors.
7020	O	N	120RC2	T.V. Control Panel	5-20-4	5-20-4	7-6-4	H. Eyerly	T.V. pnl. ckts. incorrect for displaying analog & digital data on screen.
				JUN 8 1964					
7030	O	N	120JB1	Science Isolation Box Connector	5-27-4	5-27-4	6-23-4	H. Eyerly	Pin was bent on cable & mating socket destroyed upon meting with 120W12A.
6055	O	N	106RC1	M35A Oscilloscope	6-2-4	6-3-4	7-2-4	W. Apel	A ground loop was discovered while observing the lines at splice - one.
6049	O	N	199	Gnd. Telemetry System	5-27-4	5-27-4	7-6-4	R. Balluff	-GTS data to TPS was interrupted because no automatic sensing was provided
6047	O	N	190	Computer Data System	5-23-4	5-26-4	9-2-4	K. Kawano	Analog commutator dev. pwr. transients in T/R voltage it samples.
6046	F/O	N	136	Science OSE T.V. OSE	5-23-4	5-26-4	7-7-4	R. Rotter	TV monitor pictures have "freckles." Appear not pres. in TPS link pictures
6038	O	N	107	A/C OSE *	5-23-4	5-25-4	7-2-4	J. Petralia	Step 556 of test procedure CM 300 not able to be completed on MC-2.
3525	O	N	-	Iso-Trans. Assy.	5-28-4	5-28-4	6-23-4	T. Meyers	Pwr. input to LCE-CC&S panel failed. CC&S pwr.plug inst. in wrong recpt.
2691	F	N	120RC1	Magnetometer Nulling Pnl	5-27-4	6-1-4	10-27-4	H. Eyerly	60 CPS being injected into the Helmholtz coils.
2053	O	N	107	Lo-Boy charging unit	5-28-4	6-5-4	7-6-4	Petralia Coffville Dahlgren	Robbins valve failed and galled at the O-Ring seat.
3528	O	N	197RC1	Ground Command	6-4-4	6-5-4	6-24-4	A. Lowe	Coax connector failed to make contact.
7039	O	N	190	Computer Data System	6-5-4	6-8-4	10-28-4	L. Jennings	When computer monitor scans canopus volt., a large volt. shift is noted
7041	O	N	197RCA3	CMC Counter	6-6-4	6-6-4	6-24-4	A. Lowe	Counter stopped working.

MARINER P/FR SUMMARY

Sheet 9 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 95 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
7044	O	N	120RC4A1	Data Xlator Console Tally Punch	6-5-4	6-5-4	6-24-4	H. Eyerly	Punching tape with uneven spacing. Unreadable by read-out equip.
7045	O	N	120RC6A4	Launch Control Panel Amplifier	6-5-4	6-5-4	6-29-4	H. Eyerly	Amplifier has no output with a known signal input.
7046	O	N	120RC2A5	Fairchild Recorder	6-5-4	6-5-4	6-30-4	H. Eyerly	Unable to record video.
7047	O	N	120RC7	Friden Flexowriter	6-6-4	6-6-4	6-30-4	H. Eyerly	Intermittent operation of data print-out.
9703	O	N	120RCA5	CRT Panel	6-4-4	6-4-4	6-26-4	H. Eyerly	OSE monitoring circuitry failed after operating four hours.
9704	O	N	"	CRT Panel	6-5-4	6-8-4	7-7-4	H. Eyerly	OSE monitoring circuitry did not respond to CRT data.
9705	O	N	120RC5A	Plasma Probe Panel	6-5-4	6-8-4	7-4-4	H. Eyerly	OSE did not inject calib. curr. 2 &3 into plasma instrument.
6059	O	N	-	Science OSE Kinescope Recorder	6-14-4	6-14-4	6-30-2	R. Rotter	200C on analog ground was traced to kinescope chassis.
6062	O	N	107	Attitude Control Roll Amplifier	6-12-4	6-15-4	7-22-4	J. Petralia	A/C line amp. in umbilical tower J-box failed caus.roll gyro to read +20v.
6063	O	N	105	Blockhouse Panel (LCE)	6-13-4	6-15-4	7-2-4	D. Ross	CC&S LCE blockhouse panel failed. Clear generated failed.
6065	O	N	199	Ground Telemetry System	6-13-4	6-15-4	7-2-4	R.P. King	Decommutator lost and was unable to re-acquire sync. in mode 2.
6066	O	N	-	Science OSE Tally Punch	6-14-4	6-14-4	7-2-4	R. Rotter	Tally punch failed during simulated pre-countdown.
6068	O	N	199	Ground Telemetry System Decommutator	6-13-4	6-15-4	7-2-4	J. Casani	GTS decommutator unable to distinguish bet. mode II & mode III.
3533	O	N	199	Ground Telemetry System	6-13-4	6-13-4	7-22-4	R.L. Balluf	Erroneous data printout on DAS RTDT.
3534	O	N	199	Ground Telemetry Time Code Translater Gen.	6-15-4	6-15-4	7-22-4	D. Drogosz G. Yeary	Translater will not translate central time on external signal.
				JUN 22 1964					
[illegible]			120CTR	Sci. Jun. Box	[illegible]	1-3-4	[illegible]	D. Backhofen	Coax connectors not installed.
3540	O	N	7	Attitude Control OSE	6-17-4	6-18-4	7-13-4	J. Petralia	Pitch integrator output dropped close to zero.

MARINER P/FR SUMMARY

Sheet 10 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 96 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
3542	O	N	7	Lower Left Solar Power Simulator	6-19-4	6-20-4	8-8-4	L. Packard	Current decreased to 0.2A.
3543	O	N	7	A/C OSE	6-18-4	6-20-4	7-10-4	J. Petralia	Sun gate stimulus lamp burned out.
3537	O	N		STC - OSE	6-15-4	6-15-4	7-11-4	D. Ross	CC & S OSE counter picked up about 5 counts.
3545*	O	N	2A/ OSE	Radio/Flight Command	6-18-4	6-18-4	8-18-4	A. Spear	Radio gnd. to air lock at -135 dem. became erratic in mode 4.
7059	O	N	120	Science - ADCOM	6-18-4	6-18-4	7-13-4	R. Rotter	During on-pad encounter, freckly pictures were photographed on TV.
3547	O	N	-	Cosmic Dust Detector	6-25-4	-	7-20-4	R. Rotter	Printing out noisy, invalid data every frame.
3551	O	N	-	Science - OSE	6-26-4	6-27-4	7-10-4	R. Rotter	Insufficient launch area science stimulus control panels.
7064	O	N	120	Magnetometer Nulling Panel	6-26-4	6-29-4	7-10-4	H. Eyerly	60 Gamma steps from magnetometer nulling panel is not operating.
7066	O	N	120	Isolation Box	6-25-4	6-29-4	7-10-4	H. Eyerly	No mode 2 event is sent to Science OSE.
527	F	C	-	Science Subsystem	12-5-3	12-5-3	1-20-4	W. Fawcett	Transistor anode broke off.
3041	F	C	-	Test Assembly E-A3	2-19-4	2-24-4	3-3-4	R. Fisher	Holding screws broke causing damage to shake fixture.
3419	F	N	-	S/C Shipping Container	3-4-4	3-4-4	3-17-4	R. Norman	Cover assy. did not properly mate to the U-ring.
3311	-	C	-	Vacuum Chamber	4-15-4	4-16-4	5-20-4	E. Sheldon	Chamber #12 failed. Heat Xfer pt. went from +32°F to -20°F.
3498	F	N	-	Umbilical Tower J Box	5-5-4	5-5-4	6-29-4	T. Meyers	Wires reversed. Lugs 12 & 13 give false condition of Pyro arm light.
6069	F	N	1A	Transporter Trailers	6-10-4	6-17-4	7-7-4	B. Norman	Aft. hardware boxes interfere with IMSC shroud guide rail fixture.
2405	O	N	103	Command OSE	11-17-3	11-21-3	1-20-4	A. Spear	Isolation transformer not installed.
2406	-	N	109JB1	Umbilical J Box	11-18-3	11-21-3	6-29-4	J. Schantzen	Lines between T.B. 3 # 4&5 and 109YB159.
2407	O	N	109JB1	Umbilical J Box	-	11-21-3	5-15-4	J. Schantzen	Exposed 110 Vac on unmarked and unprotected terminals.

MARINER P/FR SUMMARY

Sheet 11 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 97 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
OSE									
2408	O	N	109JB1	Umbilical J Box	11-19-3	11-21-3	5-5-4	J. Schmantzen	Terminals in J Box were not tightened properly.
2451	-	N	J4 101453	Ring Harness Tray	11-30-3	11-11-3	3-11-4	S. Landsford	Spot weld on joint failed.
3499	O	N	-	Umbilical Connector Cole 600 139-1	5-4-4	5-4-4	6-23-4	T. Meyer	Connector dropped & damaged when scaffold tipped.
3500	O	N	-	Umbilical J. - Box	5-4-4	5-4-4	6-29-4	T. Meyer	Reversal of TV-5 gave erroneous read out of CC&S inhibit high & low.
3365	O	N	7K	OSE Canopus Monitor	1-21-4	1-22-4	3-2-4	J. Petralia	Transient disturbance.
2402	O	N	106RC1 &2	D/E OSE	-	11-21-3	1-20-4	W. Apel	OSE does not conform to OSE func. Spec. #OSE/MC-31-110.
7068	O	N	34	OSE Ultra Violet Stimul.	6-25-4	6-29-4	7-13-4	H. Eyerly	U.V. stimulus lamp on "low" glitches DAS and Cosmic Ray Tel. Data.
6703	O	N	199RC1	GTS - Tape Recorder Console #594	7-7-4	7-8-4	7-11-4	R. Baluff	No signals recorded on any tracks. Input present on all tracks.
6075	O	N	120	T.V. Monitor	7-3-4	7-4-4	7-20-4	R. Rotter	Pictures have only 100 lines. TPS & playback both show 200 lines.
6077	O	N	120JB1	Isolation Box -Y Stop Card	7-2-4	7-2-4	7-22-4	R. Rotter	Failed to put out bit sync. of sufficient amplitude to drive RIDI.
6078	O	N	120	Science OSE ADCOM	7-2-4	7-2-4	7-21-4	R. Rotter	Just modified after factory overhaul. Did not work when turned on.
6079	O	N	-	Science OSE Tally Punch	7-2-4	7-2-4	7-21-4	R. Rotter	Tally punch would not wind paper on reel when turned on.
6080	O	N	120JB1	Isolation Box Card XCB4-F	7-3-4	7-3-4	7-21-4	R. Rotter	Card pulled TRD direct access monitor cards down to near gnd. pot.
6081	O	N	-	CRT/CRT Stimulus Stim. #3	7-3-4	7-3-4	7-20-4	R. Rotter	When CRT Stim #1-2-3 turned on, effect was if no stimuli were on.
9706	-	N	-	Science Isolation Box OSE	6-4-4	6-8-4	7-13-4	H. Eyerly	No channel bout. S/G present at input conn. of Sci. Insulation Box.
6086	O	N	190	CDS	7-3-4	7-7-4	10-8-4	B. Kirsten	CDS analog monitor loaded radio's ss L.O. Drive Voltage Test Point.
3556		N	197	Punch Tape Ground Command	6-27-4	6-30-4	8-18-4	A. Lowe	Tape Punch has punch shft jammed.
3561	O	N	199	Ground Tele. Console	7-10-4	7-10-4	7-27-4	R. King	Interface signal appears when DAS-GTS interface cable is con. to GTS.

MARINER P/FR SUMMARY

Sheet 12 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 98 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
OSE									
6959	O	N	-	TWT FA Test Set	6-23-4	6-27-4	7-22-4	M. Alazard	Spare exciter had 1.6 db drop in TWT output compared to original.
6960	O	N	-	TWT FA Test Set	6-24-4	6-27-4	7-22-4	M. Alazard	15° PK phase spiked during and after vibration.
6704	O	N	199	Ground Tele. Printer	7-7-4	7-8-4	9-22-4	D. Drogosz R. Balluff	Solenoid driver fuses blew, all at same time.
7072	O	N	120	Science OSE	5-25-4	7-15-4	7-22-4	H. Eyerly	Noise on Scan Planet-In-View line from OSE visacorder and cross-bar.
6094		N	102	Radio OSE	7-14-4	7-17-4	8-21-4	S. Burks	Worn out bias battery in phase lock test receiver.
6096	O	N	199	Ground Telemetry	7-24-4	7-17-4	8-12-4	R. King	Time code translator/generator became offset.
6097		N	197	Ground Command	7-17-4	7-17-4	8-10-4	A. Gallo	Crystal selector causes receiver to drop lock when touched.
6102	O	N	197	Ground Command	7-20-4	7-21-4	8-20-4	A. Gallo	Receiver output contained excessive noise.
6103		N	199	Ground Telemetry	7-21-4	7-21-4	8-20-4	R. Balluff	Amp. was oscillating giving questionable mixed signals data.
6104	O	N	120	Science - Data Monitor	7-22-4	7-22-4	8-3-4	D. Backoffen	Nylon guide punch gear has one cog broken.
6105		N	-	GTS	7-22-4	7-22-4	8-10-4	E. Baluff	Relay for charging ribbon failed overheated and burned.
7076	O	N	107	Attitude Control Console	7-21-4	7-21-4	8-25-4	W. Moore	Sun shutter action needed stimulus of several minutes.
7077	O	N	199	GTS Demodulator	7-21-4	5-22-4	9-2-4	R. King	Glitches clocked into demodulator PN generator.
7078	O	N	120	Science OSE	7-22-4	7-22-4	8-18-4	R. Rotter	Ion chamber and cosmic dust detector data register spurious counts.
6106	-	N	5	CC&S OSE	7-24-4	7-24-4	9-18-4	D. Ross	Preset counter gained 159 counts.
7081		N	120	Science OSE	7-25-4	7-25-4	9-10-4	H. Eyerly	Plasma probe step indicator does not function properly.
7084	O	N	197	Ground Command	7-25-4	7-27-4	8-18-4	A. Gallo	No RWV modulation sent to radio OSE after DC-8.
3564	O	N	-	A/C OSE	7-14-4	7-15-4	9-3-4	R. Cooper	The -R (CCW) pressure switch in the -X pressure switch box failed.

MARINER P/FR SUMMARY

Sheet 13 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 99 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
3566	O	N	197	Ground Command	7-20-4	7-22-4	8-21-4	A. Gallo	System is reset and all operation stopped when sync overline is act.
3563	O	N	-	Science OSE	7-14-4	7-15-4	8-8-4	H. Eyerly	Sci. OSE TV ADCOM failed on MC-3 complex.
3379	O	N	-	Command OSE	1-16-4	2-6-4	7-6-4	A. Spear	CDS received extraneous events.
3380	O	N	-	Power OSE	1-20-4	2-7-4	3-24-4	J. Casani R. Scott	Transients in 3 channels.
3381	O	N	-	Pyro. OSE	1-20-4	2-6-4	3-2-4	J. Casani R. Scott	Erroneous event indications.
2416	O	N	106RC1	D/E Console	11-21-3	11-22-3	1-20-4	W. Apel	Difficulty synchronizing the commutator.
2428	O	N	104A1	Solar Pnl, Simulator Box	11-2-3	12-3-3	12-18-3	J. Savino	Connector #J1 improper gender.
2579	O	N	1061A2	OSE Console Display #2	12-17-3	12-17-3	2-7-4	W. Apel	OSE wouldn't sync. on med. & slow deck.
3386	O	N	-	Line Power Filter	2-8-4	2-10-4	3-24-4	A. Spear	Radiates 5kc. RF interference.
2313	-	C	4A	Converter Subset	12-13-3	-	1-23-4	R. Spencer	Tape electronics on 20 sec. after shake plane.
				AUG 7 1964					
2435	O	N	107W9A	A/C Cable	12-4-3	12-5-3	4-30-4	J. Schantzen	Cable not per print.
2436	-	N	107W8A	A/C Cable	12-4-3	12-5-3	4-30-4	J. Schantzen	Cable not per print.
3506	F	N	7MG1	Narrow Angle Mars Gate	5-5-4	5-7-4	7-10-4	G. Coyle	Narrow angle stimulus light burned out.
6036	F	N	31A5	Scan Cover Light Bulb	5-23-4	5-25-4	6-29-4	G. Coyle	NAMG stimulus bulb burned out in scan cover.
6045	F	N	31A5	Scan Platform Cover	5-23-4	5-26-4	6-29-4	G. Coyle	TV stimulus lites have a max. allowable current too low to get TV planet-in-view signal.
7086	O	N	-	A/C OSE	7-23-4	8-4-4	8-27-4	W. Moore	-16V. sun sensor voltage tolerance detector indicated low voltage.
7095	O	N	199	GTS	8-4-4	8-4-4	8-25-4	R. Balluff	26V. AC measured between GTS chassis gnd. and subsys. signal return.

MARINER P/FR SUMMARY

Sheet 14 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 100 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
7712	O	N	102	Radio OSE	6-23-4	8-10-4	9-2-4	S. Burks	Multiplier was generating spurious 27 mc signal.
8701	O	N	197	Ground Command	8-18-4	8-13-4	10-27-4	A. Gallo	Intermittent system output by J 210.
8704	O	N	197	Ground Command	8-6-4	8-13-4	8-20-4	A. Gallo	Capstan drive mech. of 420 tape punch was frozen.
6120	-	N	102	Cable, Radio Dir. Access	8-12-4	8-14-4	10-6-4	J. Schantzen	Pins K and L open.
7099	-	N	102 109	Coax Cables	8-12-4	8-14-4	10-27-4	J. Schantzen	Pins in coax connectors completely retracted into coax.
7100	-	N	-	System Test Complex	8-11-4	8-14-4	10-2-4	T. Gindorf	Ground loops exist between 25 space sim. chamber and STC.
7101	O	N	109	Chamber Interface Plate	8-12-4	8-14-4	9-3-4	T. Gindorf	Power OSE system voltage meter behaved erratically.
7102	O	N	109	System Test J Box	8-11-4	8-14-4	9-17-4	J. Schantzen	Power cord was miswired.
7103	O	N	120	DAS Control Console	8-17-4	8-12-4	9-2-4	D. Backofen	Cable intermittent.
7106	O	N	-	System Test Complex	-	8-14-4	9-2-4	T. Gindorf	Floor power outlet wired into wall breaker instead of sep. breaker.
7107	-	N	107	A/C - Sun & Canopus Pnls	-	8-14-4	9-19-4	W. Moore L. Jennings	Panel meters indicate offsets and abnormal conditions.
7108	O	N	107	A/C - Sun Shutter Micro Switch	8-1-4	8-14-4	9-17-4	W. Moore	OSE micro-switch damaged.
1109	-	N	-	Gyro Control Assy.	8-11-4	8-17-4	8-19-4	P. Hand	60 cps power was interrupted to control console for 3 sec.
6128	O	N	197	Ground Command	7-16-4	7-17-4	10-1-4	A. Gallo	Relay K 203 in a de-energizing condition although in transmit.
636	O	N	-	S/C Cabling	8-17-4	8-19-4	10-1-4	D. Case	Cable between the VSS OSE and the TPS OSE became unplugged.
1109	-	C	-	Gyro Control Assy.	8-19-4	8-19-4	10-2-4	P. Hand	Regulator output drifting out of spec. at a steady rate.
635	O	N	120	CDS	8-19-4	8-19-4	10-1-4	R. Stott	CDS stopped giving recorder printout information.
637	O	N	120	CDS	8-17-4	8-19-4	10-22-4	R. Stott	CDS not indicating recorder functions on integrator monitor signal.

MARINER P/FR SUMMARY

Sheet 15 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 101 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
1880	O	N	-	Low Level Positioner	8-12-4	8-20-4	9-29-4	R. Norman	Universal ring.
				AUG 24 1964					
8018	F	N	2	Radio	8-7-4	8-7-4	8-20-4	T. Cocca	Cannot be switched to transmit low by any means.
6098	F	N	7CS8	Canopus Tracker	7-18-4	7-18-4	8-19-4	J. Petralia	When CC&S command MT 1,2,3, or 4 are set, A/C notes out of tolerance.
8015	F	N	16	Video Storage/CDS	8-4-4	8-5-4	9-3-4	B. Kirsten L. Jennings	CDS had an apparent short on video storage -20 volt monitor.
7113	O	N	103	Flight Command OSE	8-22-4	8-22-4	10-2-4	A. Spear	Console jumped from improper to proper sequence, and a DC-20 to S/C term.
7114	O	N	103	Flight Command OSE	8-22-4	8-22-4	10-2-4	A. Spear	Two DC-19 commands not received by spacecraft.
7115	-	N	-	EMI S Band Noise Receiver	8-22-4	8-24-4	9-10-4	A. Olbeter	Paramp failed during calibration.
7116	O	N	105	CC&S OSE	8-22-4	8-22-4	9-19-4	R. Smith	CC&S counter picked up counts in the 100's column.
7118	O	N	109	System Test J Box	8-25-4	9-3-4	9-22-4	Schantzen Atkins	Pitch Gyro OSE meter failed to indicate.
7119	-		-	VOIDED Spacecraft	8-25-4	8-31-4	VOID	T. Gindorf	Space Simulator test part II was aborted.
7122	O	N	-	Telemetry Proc. Sta.	8-29-4	8-29-4	10-9-4	D. Hess	Loss of data between building 150 and TPS at building 125.
8034	O	N	-	A/C OSE	8-26-4	8-27-4	9-30-4	J. Petralia	Peculiar response of OSE integrator observed on A/C OSE recorder.
8035	O	N	-	Science Test Isolation Box	8-26-4	8-31-4	9-21-4	Grahm	During systems testing plasma probe did not step.
8037	-	N	-	Power-External Power Supplies	8-26-4	8-28-4	10-2-4	L. Packard	When S/C on ext. power, AIV P-to-F, 1200 cps sine appears.
8038	O	N	109	Umbilical J-Box	8-28-4	8-28-4	10-6-4	W. Apel	PSEUDO-Deck sync coincident with position 110 not suppressed.
8039	O	N	-	A/C OSE	9-1-4	9-1-4	9-21-4	J. Dahlgren	Fill manifold valve began to leak at 1400 PSI.
				SEPT 8 1964					

MARINER P/FR SUMMARY

Sheet 16 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 102 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
7124	O	N	120	TV Control Console	9-3-4	9-4-4	9-19-4	R. Ebbett	OSE not receiving NRT-DAS data.
7127	O	N	1071 190	Att. Control /CDS	9-6-4	9-6-4	10-21-4	V. Youth L. Jennings J. Casani	Line printer data during NRT indicated wrong jet vane position voltage
7128	O	N	105 RC1A1	CC & S OSE-Logic Panel	9-5-4	9-6-4	9-18-4	R. Smith	CC & S received a clear pulse, resetting all counters.
8028	-	N	21A1	CRT-OSE	8-13-4	8-18-4	9-10-4	R. Rotter	Malfunctioning CRT stimulus cards in science isolation box.
3484	O	N	-	Radio	4-22-4	4-23-4	9-23-4	T. Cocca	Tele. Chl. 229 indicates loss of 3.3 to 3.5 db R.F.
6130	O	N	185	CC & S OSE	9-1-4	9-2-4	10-28-4	W. Conover	CC & S STC cabling configuration was made up w/o cable 185W3A.
6131	O	N	199	GTS Decommutator	9-4-4	9-8-4	9-23-4	R. King	Cannot obtain mode two synchronization.
7713	-	N	102	Phase Lock Loop Rcvr.	8-29-4	9-3-4	9-18-4	T. Cocca	No local oscillator output.
8040	-		-	VOIDED 25 Ft. Space Simulator	9-3-4	9-4-4	VOID	G. Goranson	Leakage in space chamber door.
8041	O	N	-	GTS	9-3-4	9-8-4	9-29-4	D. Drogosz	Bad VCO amplifier.
8042	O	N	-	GTS Printer	9-3-4	9-8-4	9-29-4	D. Drogosz	System group printer failed.
8043	-	N	8A1	SIT Switch Remote Actuator	9-3-4	9-4-4	9-22-4	G. Coyle	OSE devise that holds switch in cocked position was activated.
10015	-	N	-	CDS	9-5-4	9-12-4	10-28-4	L. Jennings	Low rate data samples improperly idendified.
10016	-	C	-	Ground Command	9-5-4	9-12-4	10-1-4	A. Gallo	Command was inhibited, but event register indication was observed.
8044	-	N	-	Ground Command	9-11-4	9-11-4	10-2-4	A. Gallo	Plus 18 volt power supply blew fuse.
8045	O	N	-	Pyrotechnics OSE	9-11-4	9-12-4	10-26-4	J. Schantzen	Pyro direct access cable No. 108WV3B was open.
8046	-	N	197301	Ground Command Rcvr.	9-11-4	9-11-4	10-6-4	N. Mullen	Distortion of Rcvr. output caused loss of lock.
8049	O	N	-	Power OSE	9-12-4	9-12-4	10-5-4	L. Packard	Internal-external power indicator lamp not working right.

SEPT 21 1964

MARINER P/FR SUMMARY

Sheet 17 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 103 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
6135	O	N	106	Data Encoder OSE	9-19-4	9-21-4	10-6-4	W. Apel	D/E mixed signals have 1200 cps noise reading on the signal.
6136	O	N	106	Data Encoder OSE	9-19-4	9-21-4	10-6-4	W. Apel	D/E OSE experienced difficulty synchronizing the decommutator.
7132	O	N	-	Systems Test Complex 3 Ground System	9-18-4	9-21-4	10-1-4	T. Atkins	Suspected CC&S glitches coming from ungrounded complex.
8053	F	N	-	25' Simulator	9-15-4	9-16-4	10-13-4	T. Gindorf	Thiolate ether deposited onto cold surfaces of S/C & simulator plate.
8056	O	N	-	Radio OSE Pwr. Meter Thermistor	9-11-4	9-15-4	10-13-4	T. Cocca	R.F. pwr. measurements at OSE no agree with measurements at S/C.
8058	O	N	-	Space Simulator Bldg. 150	9-3-4	9-10-4	10-1-4	G. Goranson	All complex operators, except pwr., reported anomalies in their subsys.
8059	F	N	199A	GTS Printer	9-18-4	9-18-4	10-6-4	D. Drogosz	Random appearance of a digit in the DCI column.
3572	O	N	-	Pyro OSE	7-13-4	7-15-4	10-26-4	M. L. Moore	SP2A light did not go out when reset after L-1.
7134	F	N	120 RC2A1	T.V. Monitor Control Pnl	9-19-4	9-19-4	10-12-4	H. Everly	Unit would not process 10.7 kc video data.
6137	F	N	120 RC4A5	Real Time Data Translator	9-24-4	9-24-4	10-28-4	D. Backhofen	Output causing Kleinschmidt printer to line step.
8063*	F	N	11A OSE	Top Thermal Shield	9-21-4	9-22-4	10-9-4	T. Gindorf H. VonDendon	Drop of oil from crane hit shield in bay 3 area.
8064	O	N	-	MC-1 T. D. Console	9-11-4	9-12-4	10-28-4	J. Beckert	1 pulse/min. ckt. was putting out random pulses every ~10 sec.
8067	O	N	197 RC1A7	Tape Punch-Gnd. Command	9-2-4	9-2-4	10-9-4	A. Gallo	Tape punch every tenth punch. Broken tooth on drive wheel.
7139	F	N	106 RC1	S.T.C. Console	9-30-4	9-30-4	10-6-4	W. Apel	60 and 400 cps noise on mixed signal line.
2221	O	N	-	Canopus Tracker T/M Buffer	10-1-4	10-2-4	11-10-4	F. Davis	Improper output voltage.
				OCTOBER 12, 1964					
7142	O	N	220A2	Science Launch Panel	10-6-4	10-6-4	10-27-4	R. Rotter	Ampl. chassis not isolated from video pair shield return.
3579	O	N	199A3	Printer Power Supply	9-25-4	10-1-4	10-20-4	D. W. Drogosz	Erratic Operation from printer.

MARINER P/FR SUMMARY

Sheet 18 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 104 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
3586	O	N	199RC3	Ground Telemetry Console	10-6-4	10-6-4	10-20-4	D. Drogosz	Rate 1 counter would cycle thru counts 102 thru 105 and reset.
3589	O	N	199RC3	Ground Telemetry Console	10-7-4	10-7-4	10-20-4	D. Drogosz	Demod. shows tendency to lock 1/4 PN bit off.
7146	O	N	220A2	Science Launch Control Panel	10-9-4	10-9-4	10-27-4	H. Everly	Buffer data and sync lines loaded by LCP.
7147	O	N	-	Data Encoder OSE	10-8-4	10-9-4	10-22-4	W. Apel	Would not maintain sync.
7149	O	N	107W2	Attitude Control Cable	10-8-4	10-10-4	10-23-4	J. Petralia	107W2 put into 107RC2 instead of 107RC1.
7150	O	N	102	Radio Cabling	-	10-10-4	10-26-4	T. Cocca	Radio showed excessively low signal level.
7156*	F	N	4A/OSE	Power	10-12-4	10-12-4	10-28-4	L. Packard	4A15 tolerance detector light came on twice.
3585	O	N	199A1	Franklin Printer	10-5-4	10-6-4	10-20-4	D. Drogosz	Printer failed to print.
7154	O	N	106	Data Encoder LCE	10-10-4	10-10-4	10-22-4	W. Apel	D/E would not home to any channel.
3576*	F/O	N	-	PAS (OSE) & A/C (S/C)	9-29-4	10-12-4	10-29-4	S. Scirmay	Gyros remained on after DC-20 was given @ 12:13:01.
3590	O	N	-	Ground Command Bay I card	10-8-4	10-8-4	10-27-4	N. Mullen	Unable to punch correct tape for GC commands.
3591	O	N	-	CC&S OSE	10-8-4	10-9-4	10-28-4	D. Ross	OSE preset counter picked up an extra count.
3592	O	N	-	CC&S OSE	10-8-4	10-9-4	10-28-4	D. Ross	Printer reported malfunctioning after MT-1.
7157	O	N	102	Radio OSE	10-14-4	10-19-4	10-27-4	T. Cocca	Frequency counter jumped counts.
7160	F/O	N	104RC1	Power OSE-Rack Console	10-17-4	10-17-4	10-30-4	L. Packard	Multimeter failed and commutation ceased.
7161*	F	N	7CS8 107RC1	Canopus Tracker or Back Console	-	10-19-4	10-29-4	E. Ivie	Acquisition signal rcvd. with intensity of 0.2X canopus.
7163	O	N	33A3	Magnetometer	10-17-4	10-19-4	10-27-4	D. Norris	Magnetometer & axis output has a polarity reversal.
7158	O	N	116	Video Storage OSE	10-13-4	10-19-4	10-29-4	W. Trester	Launch shelter isolation amp. broke into oscillation.

MARINER P/FR SUMMARY

Sheet 19 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 105 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
8072	F/O	C	197	Ground Command (GCS)	10-3-4	10-3-4	10-21-4	A. Spear	After DC-22, GCS began processing and transmitting a DC-23.
7165	O	N	105 RC1A4	CC&S OSE	10-20-4	10-21-4	10-29-4	R. Ross	10KC oscillator failed.
7166	O	N	199A1	Tranklin Printer Case	10-20-4	10-20-4	10-28-4	R. King	No printout of a BCD four bit in SEC units.
				OCT 27 1964					
7168	O	N	199A2	Franklin Printer	10-20-4	10-21-4	10-28-4	R. King	Full reverse power on solenoid for unknown period of time.
7174	O	N	104	Power OSE	10-31-4	10-31-4	11-11-4	A. Youngren	Inverter tolerance det. lite blinking in blockhouse.
7173	O	N	106	Data Encoder OSE	10-31-4	10-31-4	11- 9-4	W. Apel	D/E-BH coult not home properly.
9816	F	N	-	Environ. Facilities	10-28-4	11-2-4	11-10-4	J. Drugan	Pressure pump generating spurious signal.
9817	F	N	-	Environ. Facilities	10-26-4	11-2-4	11-10-4	J. Drugan	Could not equalize system prior to PTM noise test.
1563	F	N	-	Environ. Facilities	10-29-4	11-9-4	11-12-4	J. Drugan	Strange sound hear at S/C site.
1564	F	N	-	Environ. Facilities	10-28-4	11-2-4	11-12-4	A. Beers	Vibration range was @ rate of ½ min. octave instead of 1 min/octave.
1565	F	N	-	Environ. Facilities	10-29-4	11-9-4	11-12-4	J. Drugan	"input select" in improper position.
				NOV 16 1964					
9303	O	N	199A3	GTS Printer Pwr. Supply	11-10-4	11-10-4	12-7-4	D. Drogosz	Power supply out of regulation.
9304	O	N	-	Attitude Control OSE	11-11-4	11-11-4	5-10-5	R. Cooper E. Ivie	-X Roll CCW Gas System indicator light remained on.
9305	O	N	199RC1	Dynamics Iso. Drawer	11-11-4	11-12-4	1-13-5	D. Drogosz	Test pts. 4 & 7 do not show proper output signals.
7175	O	N	1A1 109JB	Pwr. Signal Cond. Assy.	11-20-4	11-23-4	12-21-4	L. Packard	4A16 Inverter Monitor Channel would not self test.
9307	O	N	-	Video Storage OSE	11-13-4	11-13-4	2-12-5	W. Trester	Fan motor burned up. Protective screen crushed into fan blade.

MARINER P/FR SUMMARY

Sheet 20 of 20

R = Returned by Project Engineer
X = Answered but not closed

Page 106 of 112

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				OSE					
9308	O	N	197RC1	S-Band Receiver Ground Command	11-25-4	11-25-4	3-3-5	A. Gallo	Rcvr. does not stay in lock returned from goldstone.
				DEC 21 1964					
9309	O	N	197RC1	Ground Command	12-15-4	12-16-4	3-16-5	A. Gallo	All system pwr. supply voltages 50% below nominal values.
7176	O	N	202	Radio	11-25-4	12-17-4	4-16-5	T. Atkins	Excessive loss and instability of RF signals.
9311	O	N	--	Power OSE	1-13-5	1-19-5	6-1-5	L. Packard	Emergency power off procedure failed.
9314	O	N	--	AC OSE Pressure Switch	1-18-5	1-19-5	8-12-5	W. Moore	Switch failed to open at end of roll turn.
				FEB 1 1965					
10121	O	N	197RC1	Ground Command	12-17-4	1-4-5	10-27-5	A. Gallo	S/C lost lock when RWV punch was in standby mode.
9315	O	C	-	Flight Command OSE	2-12-5	2-15-5	7-21-5	D. Olson	Xmission of QC-1-3 resulted in parity bit error
9319	O	N	-	Mincom Tape Recorder	4-20-5	4-20-5	6-5-5	A. Couvillon	Failed to rewind tape properly.
10040	O	N	197RC1	Ground Command Sys	4-26-5	4-30-5	7-21-5	G Crawford	8X sync frequency appeared distorted on GCS scope
3042	O	N	-	System Life Test Scan Actuation	5-5-5	5-5-5	5-25-5	J Stoker	Thick coat of oil on condensing mirrors.
8079	O	N	-	Solar Simulator Supply	5-13-5	5-13-5	8-12-5	D. Prisbrey	Beginning to act erratically
10304	O	N	197RC1	Ground Command Sys.	5-10-5	5-17-5	7-21-5	G Crawford	Would "Hang-UP" and not advance to "Tape Read"
8082	O	N	7A -	Attitude Control Sanborn Recorder	5-21-5	5-21-5	9-7-5	W. Charlan	Noise induced into S/C data encoder
9323	O	C	197RC1	Ground Command Tape Perforator	6-9-5	6-10-5	7-21-5	R DeSantis	Failed to advance tape.
7828	O	N	104	Power OSE - Solar Panel Simulator	7-2-5	7-2-5	7-21-5	T Cerney	Simulators set to give [illegible] Produced 286 watts.
7011	O	N	120RC5	U. V. OSE Power Supply	5-14-4	5-14-4	6-10-4	H. Eyerly	Science OSE not sending - 18 volts to Isolation Box.

MARCH 1 1966

MARINER P/FR SUMMARY

Sheet 1 of 4

R = Returned by Project Engineer
X = Answered but not closed

* Interface

Page 107 of 112

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
DIVISION 31				SPACECRAFT					
3453*	F	N	2A/4A	Radio Power	4-1-4	4-1-4	7-21-4	J. Casani	Power came on in Power-up mode. Power OSE was in R-F down state.
1755*		N	4A	Power Sync - 400 cps, 1 Ø Inverter	-	6-26-4	9-4-4	H. Weaver	Subassemblies 4A12 and 4A17 were dented.
3522	F	C	-	Spacecraft Subsystems	5-26-4	6-1-4	7-6-4	J. Casani	Radio & pwr. subsys. suddenly became erratic during vacuum.
3521	-	N	-	Spacecraft Subsystems	5-22-4	5-25-4	7-8-4	J. Casani	S/C pwr. consumption didn't return to pre-burn level.
3509	F/O	N	4A11	Power	6-16-4	6-22-4	7-7-4	J. Casani	Agena separation (RF power up on power OSE) given at 74:56.
3415	F/O	C	-	Mariner Spacecraft	2-29-4	3-4-4	4-17-4	J. Casani	Current loops and permanent fields from spacecraft were generated.
3418	F	C	-	Science / QC	-	9-5-4	3-30-4	M. Goldfine	Several science modules found with dirty connectors.
7071	F	C	-	MC Spacecraft	6-18/ 26-4	7-8-4	8-19-4	J. Casani	During Emission of DC-25, all events normal with exception of register 3.
6710*	F	C	6/4	Data Encoder /Power	7-29-4	7-31-4	8-19-4	J. Casani	D/E has a 1.6K collector resistor to +6v.
2694*	F	N	16A	Tape Recorder	-	7-24-4	8-5-4	J. Casani	Second line of every two line sample picture has bad data.
				AUG 7 1964					
7112	-	N	-	Spacecraft	8-22-4	8-24-4	10-27-4	M. Goble	RF output cable disconnected by persons unknown causing loss of data
				SEPT 8 1964					
5830	-	N	21A1	MC-2 CRT	9-2-4	9-11-4	10-27-4	W. Earle	Hole punched through CRT Temp. fin mylar window.
5831	-	N	21A1	MC-3 CRT	9-8-4	9-11-4	10-27-4	M. Goble	Pin hole and scratch in CRT temp. fin mylar window.
5832	-	N	21A1	MC-4 CRT	8-27-4	9-11-4	10-1-4	H. Weaver	Hole punched through CRT temp. fin mylar window.
8047	-	N	-	Pyro-Data Encoder	9-11-4	9-13-4	10-9-4	J. Casani	D/E did not receive an event in Reg. 4 when scan platform unlatched.
8048	-	N	5A	Central Timer Pwr. Sup.	9-11-4	9-13-4	10-1-4	J. Beckert	Power supply in central timer burned up power transformer.
				SEPT 21 1964					

MARINER P/FR SUMMARY

Sheet 2 of 4

R = Returned by Project Engineer
X = Answered but not closed

* Interface

Page 108 of 112

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
SPACECRAFT									
6134	O	N	-	S/C System Cabling	9-21-4	9-22-4	9-24-4	T. Meyer	Sig. to noise of TV data and bit sync. not good for reliable data.
8057	F	N	2A	Radio	9-3-4	9-10-4	10-8-4	L. Keeler	Interference observed btwn. 2116 and 2116.15 MC at omni ant.
8062	F	N	120W15 120W16 120W17	Glass Coated Cables	9-21-4	9-24-4	10-27-4	J. Schantzen	Cleaning process caused coverings to become frayed and fuzzy.
8073*	F	N	S/C-7A 4A-9W	A/C - Power - Cabling	10-3-4	10-3-4	10-8-4	J. Casani	Two wires in sun shutter left dangling and uncovered.
8076	F	N	-	Mar C Spacecraft	10-3-4	10-6-4	10-22-4	M. Goldfine	Two wires to sun shutter solenoid were unsoldered.
8061	F	N	-	Mar C Spacecraft	8-20-4	10-1-4	10-21-4	J. Casani	Servo-amp started to oscillate during equalization run.
VOID 8071	F		-	VOIDED Mar C Spacecraft	9-3-4	10-1-4	VOID	J. Casani	System anomalies caused by loss of vacuum in 25 ft. chamber.
				OCTOBER 12, 1964					
8060	F	N	-	SUPERSEDED BY PFR 8074 MC-4 Spacecraft	8-22-4	10-1-4	VOID 10-22-4	J. Casani	Shaker delivered shock to S/C of +28 g's and -22 g's.
3588	F	C	-	Spacecraft	10-6-4	10-6-4	10-30-4	J. Casani	After motor burn & before midcourse, increases in chnl.T 221 occurred.
7144	F	N	-	MC-3 Spacecraft	9-30-4	10-9-4	10-28-4	J. Maclay	Crane sudden downward accel. occurred upon mating to U-ring.
7148	F	N	-	MC-3 Spacecraft	9-26-4	10-9-4	10-26-4	H. Levy	Crane in hangar AO quit functioning.
7152	O	N	-	MC-3 Spacecraft	10-9-4	10-9-4	10-27-4	J. Casani	TV data degraded. No useable pictures obtained.
7153	F	N	-	MC-3 Spacecraft	10-10-4	10-12-4	10-30-4	J. Casani	Pwr. fluctuations noted in external supply current.
7155	F	N	106 9W9T1	Catenary Cable Conn.	10-10-4	10-13-4	9-7-5	J. Casani	Unable to establish data encoder return.
3576*	F/O	N	-	PAS (OSE) & A/C (S/C)	9-29-4	10-12-4	10-29-4	S. Szirmay	Gyros remained on after DC-20 given at 12:13:01.
3594	F	N	-	Scan Platform Latch Mechanism	10-7-4	10-8-4	10-28-4	P. Lyman	D/E did not see counter 2 event.
				OCT 27 1964					
3597	F	N	6A12	Data Encoder Amp.	10-17-4	10-19-4	11-5-4	C. Carl	D/E 400 deck sync. to OSE failed.

MARINER P/FR SUMMARY

Sheet 3 of 4

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				SPACECRAFT					
7169	F		-	MC-3 Spacecraft	10-20-4	10-21-4	OPEN	W. Schneider	Science reported a shutter command on visacorder.
6143	F	N	06/16	Data Encod./Video Storage	10-28-4	10-29-4	11-3-4	W. Trester	Lock event register 4 changed count from 3 to 0, and back to 3.
3600	F	N	-	In Flight Accelerometer	10-30-4	10-31-4	12-7-4	W. Pierce	Accel. did not check out with Instrumentation Group.
				NOV 16 1964					
10101	F	N	24/SC	Cosmic Dust Det/SC	11-28-4	12-3-4	1-7-5	J. Casani	CDD indicated simultaneous hit directions in many frame counts.
10102	F	N	32/20	Plasma Probe/DAS	11-28-4	12-3-4	1-7-5	J. Casani	Plasma probe missed several pulses.
10133	F	N	8A1 8A2	Pyro Central Assy	11-28-4	12-21-4	1-11-5	L. Moore	Extra events in event counters 1 and 3 at L-1.
10134	F	C	-	Solar Pressure Vanes	11-20-4	12-21-4	1-8-5	J. Randall	At deployment vanes extended to positions far past nominal.
10135	F	N	6	Data Encoder	11-28-4	12-21-4	OPEN	J. Randall	On day 333, many resets and skips in the data.
10137	F	N	7	Attitude Control	11-30-4	12-21-4	11-1-5	E. Davis	On day 335, a sharp transient occurr in roll position output.
10138	F	N	7CS8	Canopus Sensor	12-2-4	12-21-4	11-1-5	E. Davis	Day 337, canapus acquisition lost.
10139	F	N	7	Attitude Control	12-4-4	12-21-4	11-1-5	E. Davis	Loss of roll reference. (3rd. roll transient since launch.
10140	F	N	6	Data Encoder	12-6-4	12-21-4	1-19-5	E. Davis	Day 341, D.E. skips and resets noted.
10141	F	N	6	Data Encoder	12-7-4	12-21-4	1-19-5	E. Davis	Day 342, D.E. skips and resets noted.
10142	F	N	7CS8	Canopus Sensor	12-7-4	12-21-4	11-1-5	E. Davis	Day 342, canopus acquisition lost.
10143	F	N	7CS8	Canopus Sensor	12-9-4	12-21-4	11-1-5	E. Davis	Day 344, roll acquisition on g-vela was lost.
10144	F	N	7CS8	Canopus Sensor	12-9-4	12-21-4	11-1-5	E. Davis	Day 344, brightness signal caused loss of acquisition.
10145	F	N	7CS8	Canopus Sensor	12-13-4	12-21-4	11-1-5	E. Davis	In reacquisition, gyro on time less than nominal.
10146	F	N	7CS8	Canopus Sensor	12-17-4	12-21-4	11-1-5	E. Davis	In reqcquistion, one sample of PS&L output voltage read 0 dn.

MARINER P/FR SUMMARY

Sheet 4 of 4

R = Returned by Project Engineer
X = Answered but not closed

* Interface

REPORT NO.	Flight OSE	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				SPACECRAFT					
10147	F	N	7	Attitude Control	12-26-4	12-28-5	11-1-5	E. Davis	Day 361, a transient in roll position was noted.
10116	F	N	7A	Solar Vanes	NA	1-11-5	4-1-5	K. Bouvier	Three vane anomalies observed during flight.
				FEB. 1 1965					
10122	F	N	-	MC-3 Spacecraft	2-7-5	2-17-5	4-23-5	J. Casani	Roll channel transient observed on 2-7-65
10176	F		002	Radio	4-2-5	4-2-5	OPEN	J. Hunter	Drop of gnd. received carrier pwr. of 1 db.
10196	F		16A 20A	VSS/DAS	7-15-5	7-15-5	OPEN	A. Conrad	Two extra end of tape indications in data.
				MARCH 1 1966					

MARINER P/FR SUMMARY

Sheet 1 of 2

R = Returned by Project Engineer
X = Answered but not closed

* Interface

Page 111 of 112

REPORT NO.	Flight Use	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
Division 31				LAUNCH VEHICLE INTERFACE					
3036	F	N	-	V - Band Assembly	1-9-4	1-30-4	8-3-4	J. Shaffer	Screw threads torn out of nut.
3038	-	N	-	Plate Adapter	2-12-4	2-13-4	8-3-4	J. Shaffer	Interference and possible tearing of lower shield.
3046	-	N	-	Strap Assembly Forward Midbody	1-20-4	1-21-4	8-3-4	J. Shaffer	Galling and locking of screw.
3052	-	C	-	Turnbuckle Test Assy.	1-3-4	1-6-4	8-3-4	J. Shaffer	Mechanical failure on adapter joint.
3063	-	N	-	V - Band Assembly	1-24-4	1-30-4	8-3-4	J. Shaffer	Two strain gages unbonded.
3105	-	C	-	Launch Vehicle Shroud	1-17-4	1-23-4	7-28-4	J. Shaffer	Fiber & metal shreds of debris.
3509	F	C	-	LMSC - JPL Match Mate	4-28-4	4-29-4	7-28-4	J. Shaffer	Sun Sensor 7SS6 in Bay 6 clears accel. at Leg "B" by only 0.09 ins.
3510	F	C	-	LMSC - JPL Match Mate	4-28-4	4-29-4	8-19-4	J. Shaffer	Clearance btwn. S.I.T. on S/C and LMSC-S.I.T. is only 0.125 inches.
3511	F	N	-	LMSC - JPL Match Mate	4-28-4	4-29-4	8-3-4	J. Shaffer	Flt. conn. LMSC adptr. contcs. low thermal blkt. aft. conn. demated.
5659	F	N	-	Inflight Accelerometers	6-13-4	6-17-4	8-7-4	J. Shaffer	Inflight acceleroms. or their assoc. amps failed to function properly.
6070	F	C	1A	LMSC Adapter (6931)	6-10-4	6-17-4	8-19-4	J. Shaffer	S. T. Bracket close to contacting S/C lower Thermal shield.
6071	F	C	1A	"V" Band Safety Strap	6-10-4	6-17-4	7-28-4	J. Shaffer	Straps come in contact with case louvers when installed.
6072	F	N	1A	LMSC Adapter (6931)	6-11-4	6-17-4	8-3-4	J. Shaffer	In flight disconnect connector was 180° out of phase.
6073	F	N	1A	LMSC Adapter & Shroud	6-11-4	6-17-4	8-3-4	J. Shaffer	No scribe line provided to prevent misalignment during mating.
6074	F	N	1A	LMSC Adapter 6931, 6931A, 6932	6-15-4	6-17-4	8-3-4	J. Shaffer	Electrical cables from adtr. to shroud explos. bolt thru unsealed hole
3517	F	C	-	V-Band Sys. Spacecraft	5-6-4	5-21-4	8-3-4	N. Williams	End of bolt cutter assy. recoiled and struck S/C after firing.
				AUG 7 1964					
10202	-	N	-	LMSC Flight Mike	8-5-4	8-10-4	10-6-4	N. Williams	Wave forms on the 3 data chnls. broke up & began full band oscillation.
10203	F	N	-	LMSC Flight Acc.	8-7-4	8-10-4	10-6-4	N. Williams	Stopped transmitting a signal to instrumentation.

AUG 24 1964

MARINER P/FR SUMMARY

Sheet 2 of 2

R = Returned by Project Engineer
X = Answered but not closed

* Interface

Page 112 of 112

REPORT NO.	Flight Use	Critical Non-critical	REFERENCE DESIGN	NOMENCLATURE	DATE FAILED	DATE REPORTED	DATE CLOSED	COG. ENGINEER	COMMENT
				LAUNCH VEHICLE INTERFACE					
10097	F	C	-	LMSC Flt. Accelerometer	8-23-4	8-24-4	10-6-4	N. Williams	Connector to charge amplifier had not been safety wired.
10098	F	C	-	Bolt - Sep. Rate Monitor	8-23-4	8-24-4	10-6-4	N. Williams	Bolt came loose during shake.
10092	F	N	-	Flight Mike	8-24-4	8-24-4	10-6-4	N. Williams	3 data chnls. exhibited DC-2 cps drift of zero ref. level.
10093	-	N	-	LMSC wiring Harness	8-22-4	8-24-4	10-6-4	N. Williams	Two pins in deutsch connector broken.
				SEPT 8 1964					
				SEPT 21 1964					
5631	-	N	-	LMSC S/C Adapter Linear Pot. Separation	9-18-4	9-21-4	10-28-4	N. Williams	Plunger stuck at approx. 60% of travel.
				OCT 12 1964					
9815	F	N	LMSC	High Frequency Accelerometer System	10-29-4	10-2-4	11-16-4	A. Williams	Failed to xmit good data during full level noise test.
				NOV 16 1964					
				FEB 1 1965					
				MARCH 1 1966					