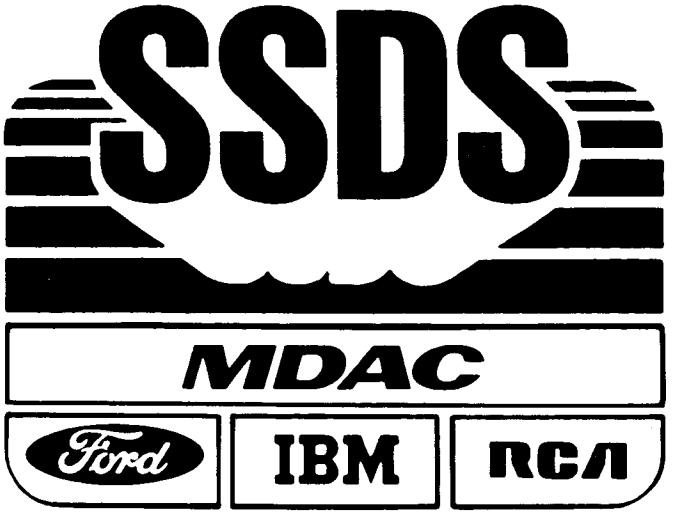
DECEMBER 1985

NASA CR-177845

MDC H1343A



SPACE STATION DATA SYSTEM ANALYSIS/ARCHITECTURE STUDY

Task 4 — System Definition Report

Appendix

(NASA-CR-177845) SPACE STATION DATA SYSTEM ANALYSIS/ARCHITECTURE STUDY. TASK 4: SYSTEM DEFINITION REPORT. APPENDIX (McDonnell-Douglas Astronautics Co.) 610 p HC A99/MF A01 CSCL 22B G3/18

N86-20480

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MCDONNELL DOUGLAS CORPORATION

SPACE STATION DATA SYSTEM ANALYSIS/ARCHITECTURE STUDY

Task 4 — System Definition Report

Appendix

DECEMBER 1985

MDC H1343A
REPLACES MDC H1942
DATED MAY 1985
UPDATED AUGUST 1985

MCDONNELL DOUGLAS ASTRONAUTICS COMPANY-HUNTINGTON BEACH
5301 Bolsa Avenue Huntington Beach, California 92647 (714) 896-3311

PREFACE

The McDonnell Douglas Astronautics Company has been engaged in a Space Station Data System Analysis/Architecture Study for the National Aeronautics and Space Administration, Goddard Space Flight Center. This study, which emphasized a system engineering design for a complete, end-to-end data system, was divided into six tasks:

Task 1. Functional Requirements Definition
Task 2. Options Development
Task 3. Trade Studies
Task 4. System Definitions
Task 5. Program Plan
Task 6. Study Maintenance

McDonnell Douglas was assisted by the Ford Aerospace and Communications Corporation, IBM Federal Systems Division and RCA in these Tasks. The Task inter-relationship and documentation flow are shown in Figure 1.

This report was prepared for the National Aeronautics and Space Administration Goddard Space Flight Center under Contract No. NAS5-28082

Questions regarding this report should be directed to:

Glen P. Love
Study Manager
McDonnell Douglas Astronautics Company
Huntington Beach, CA 92647
(714) 896-2292

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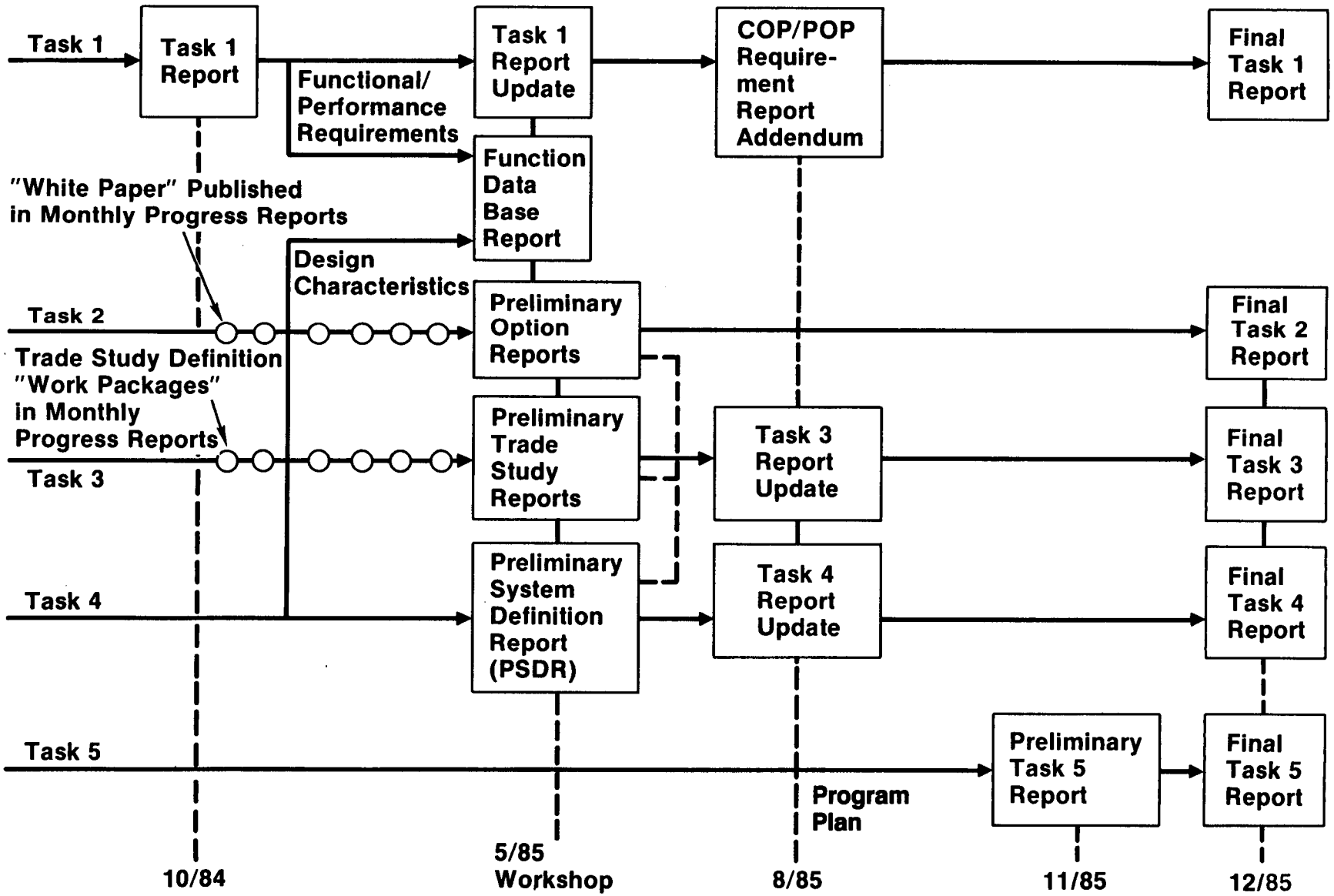
Figure 1

VHG598

SSDS A/A DOCUMENTATION SCHEDULE



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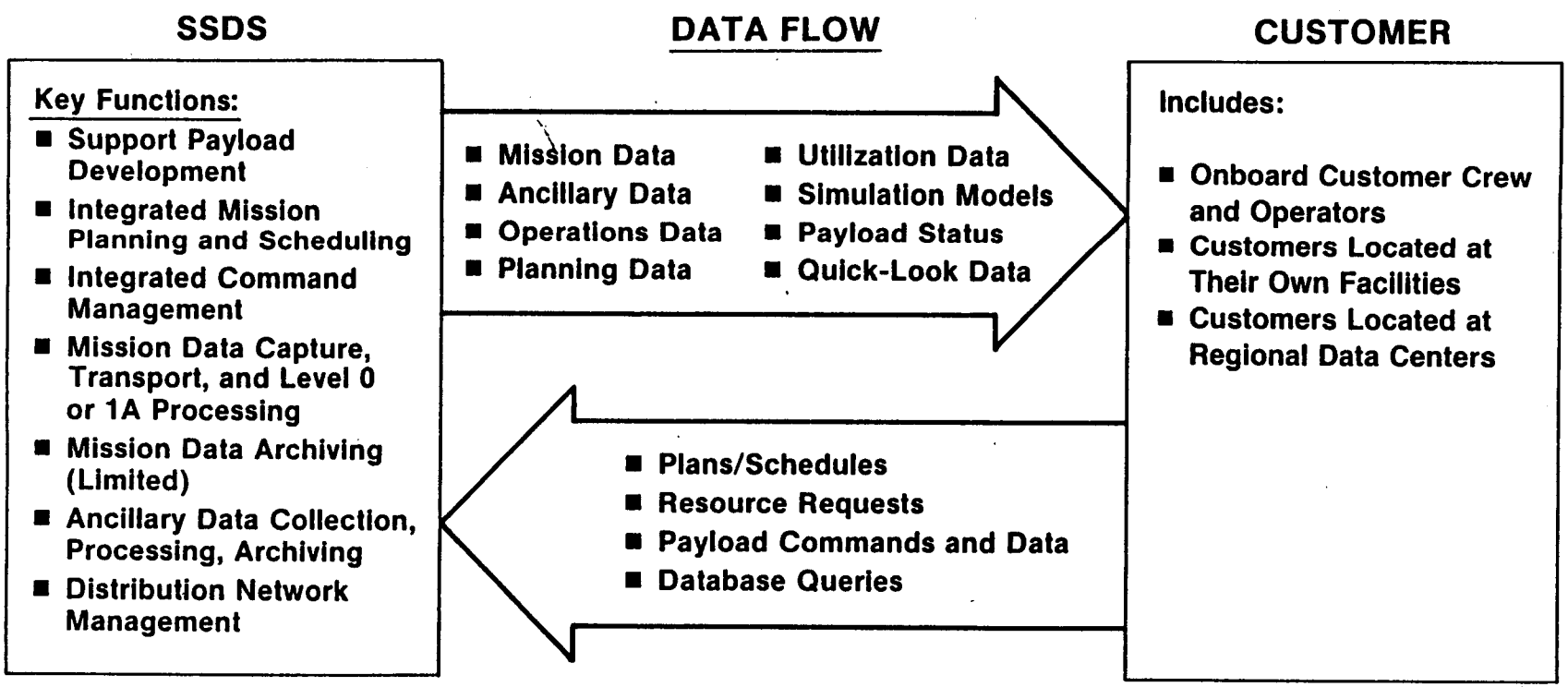
APPENDIX C

EXTERNAL INTERFACE SPECIFICATION

SSDS EXTERNAL INTERFACE WITH CUSTOMERS

BOWMAN
SSDS
VHB941



BOWMAN
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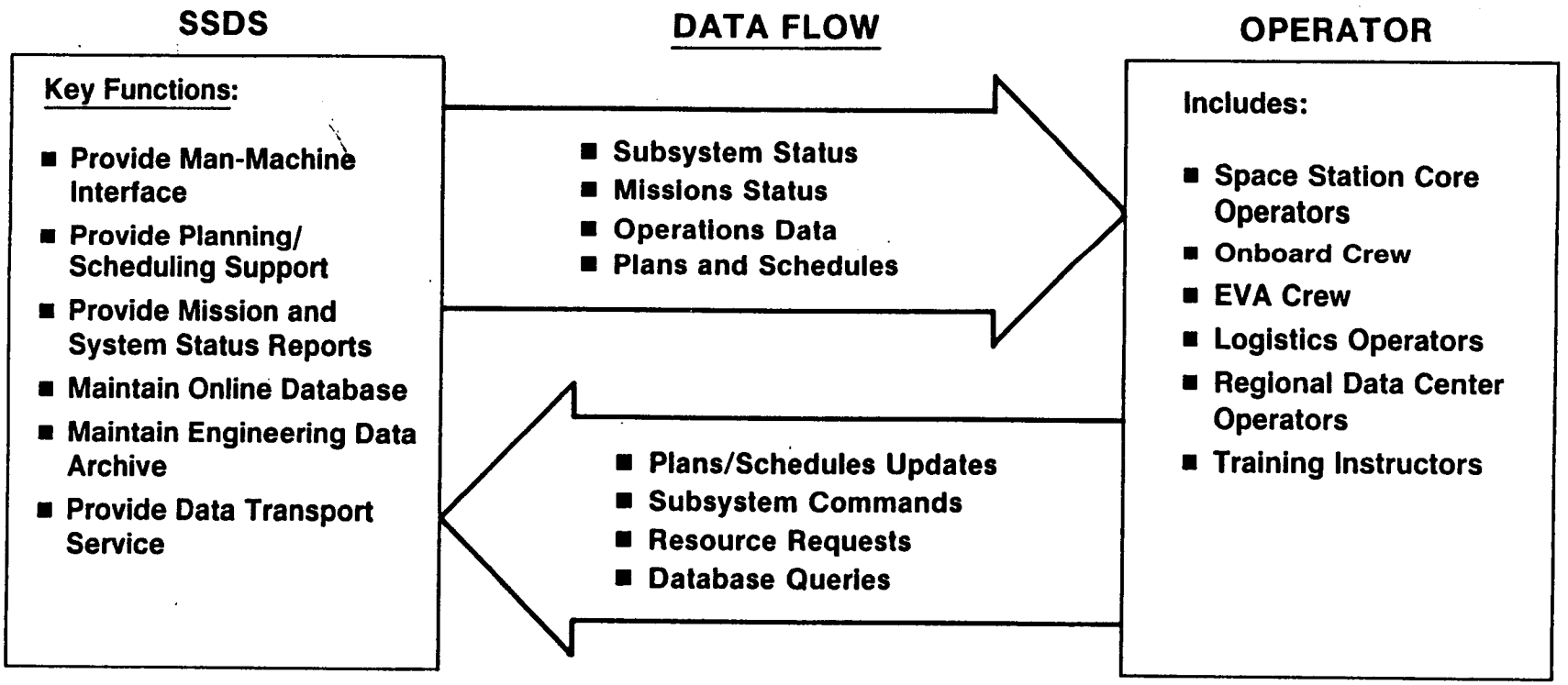
SSDS EXTERNAL INTERFACE WITH OPERATORS



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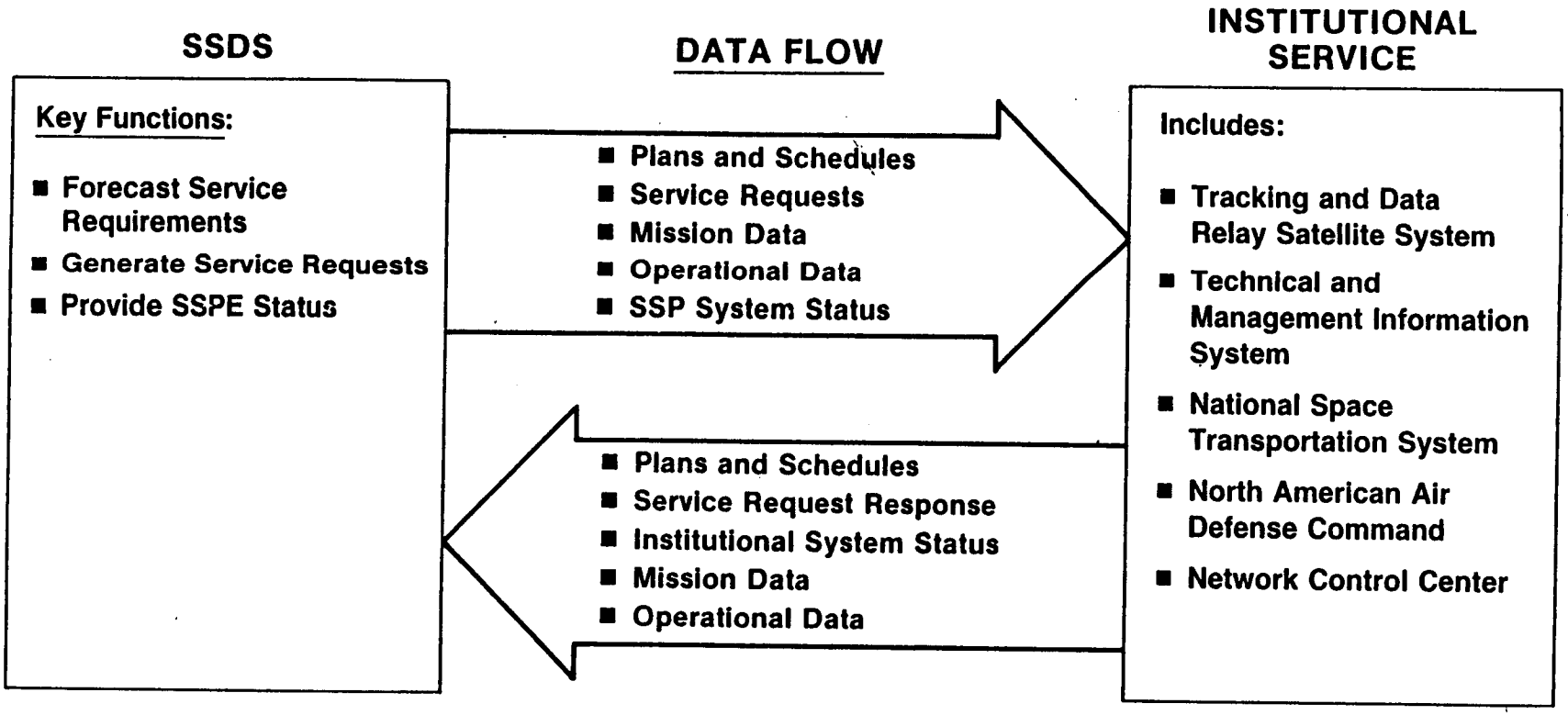
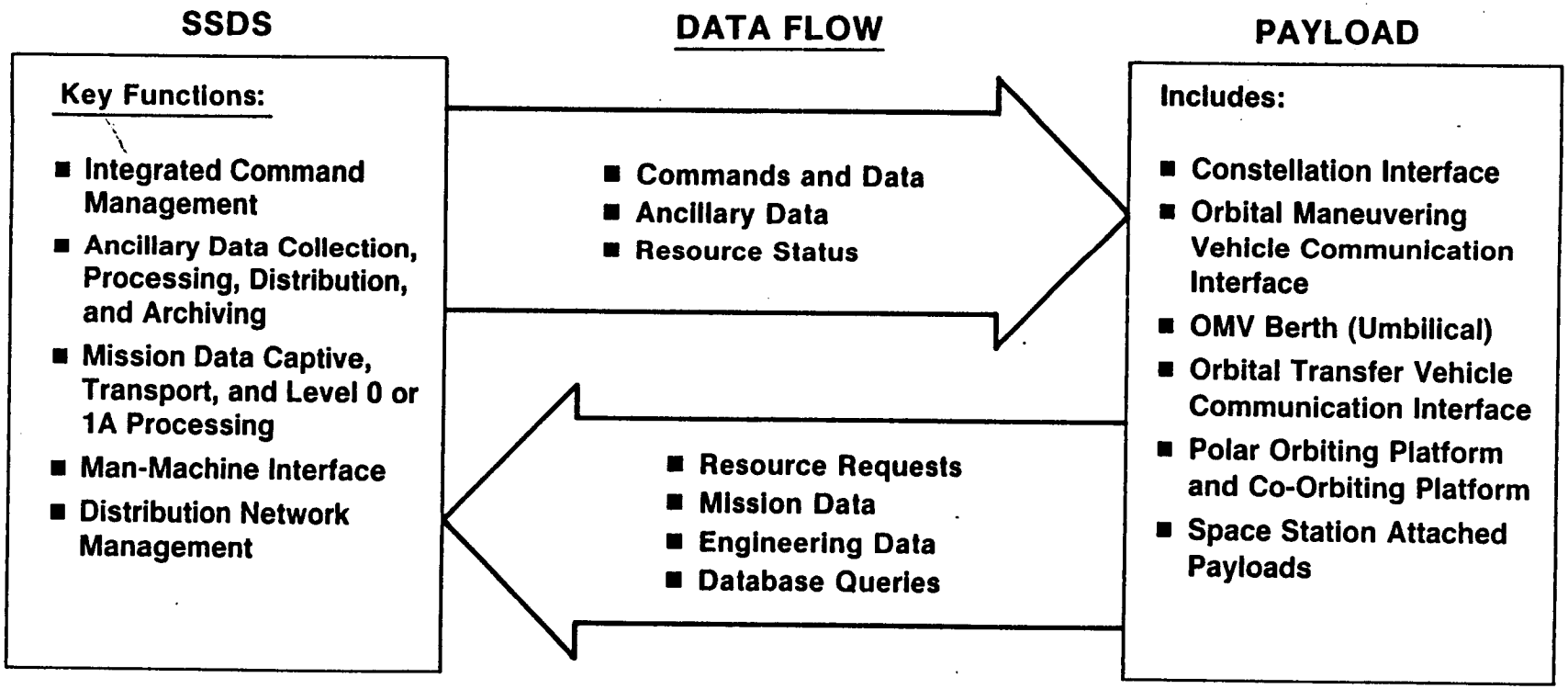
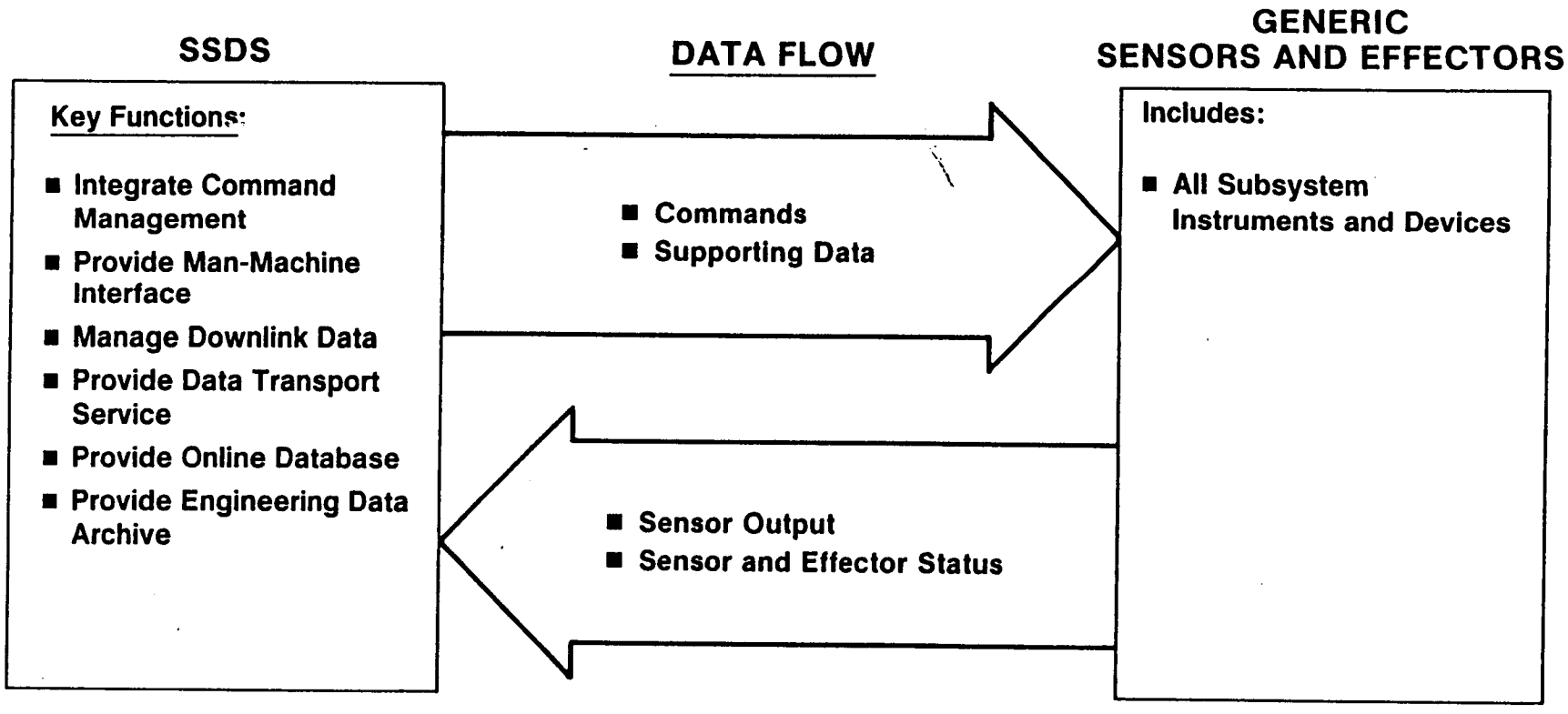


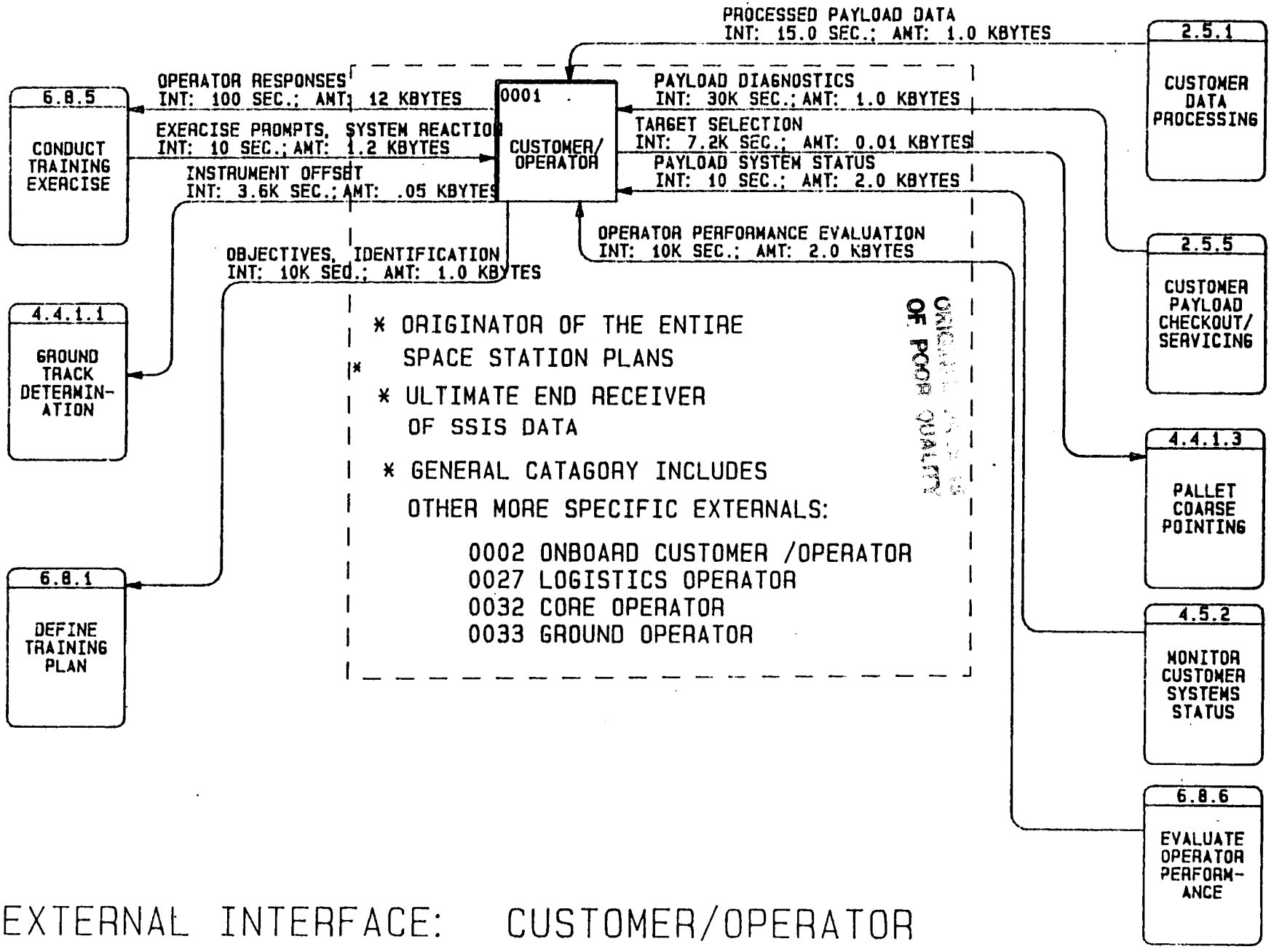
SSDS EXTERNAL INTERFACE WITH PAYLOADS



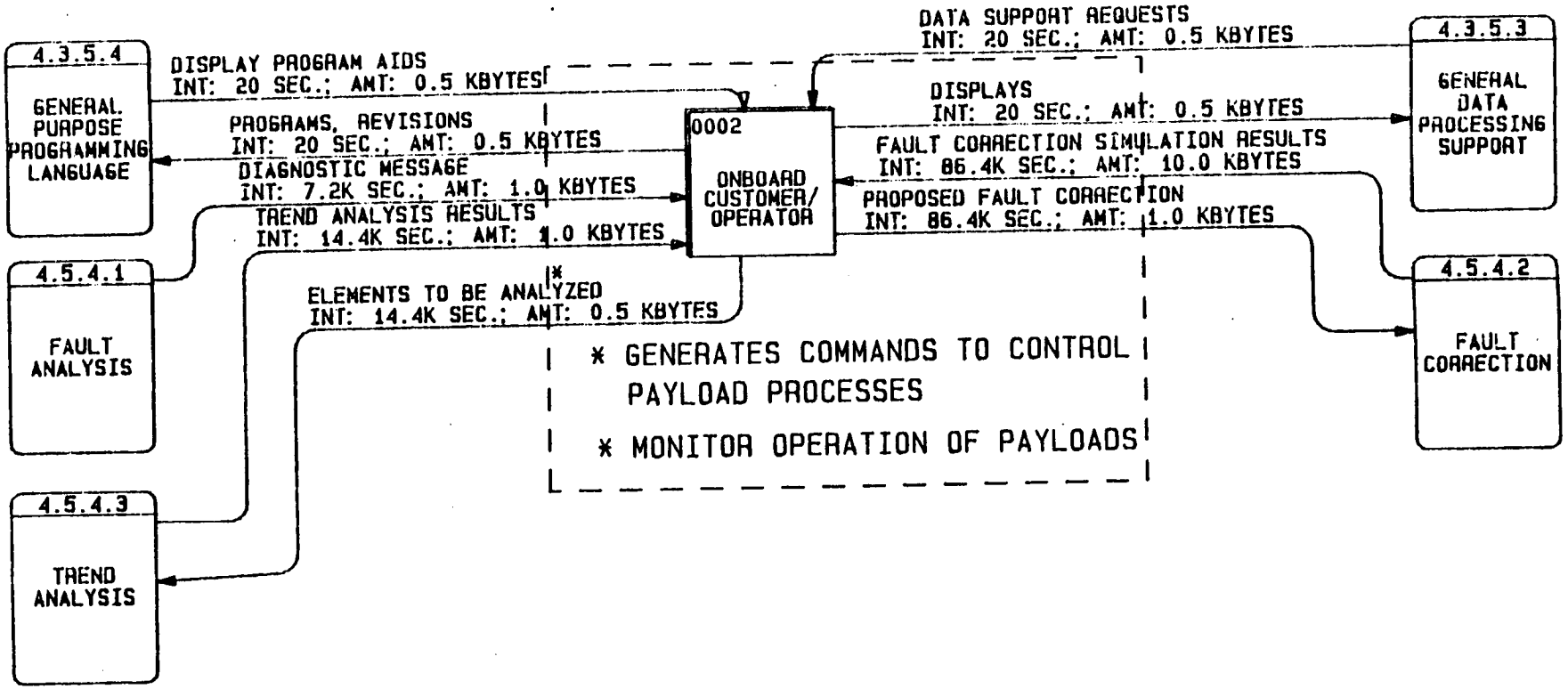
SSDS EXTERNAL INTERFACE WITH SUBSYSTEM SENSORS AND EFFECTORS



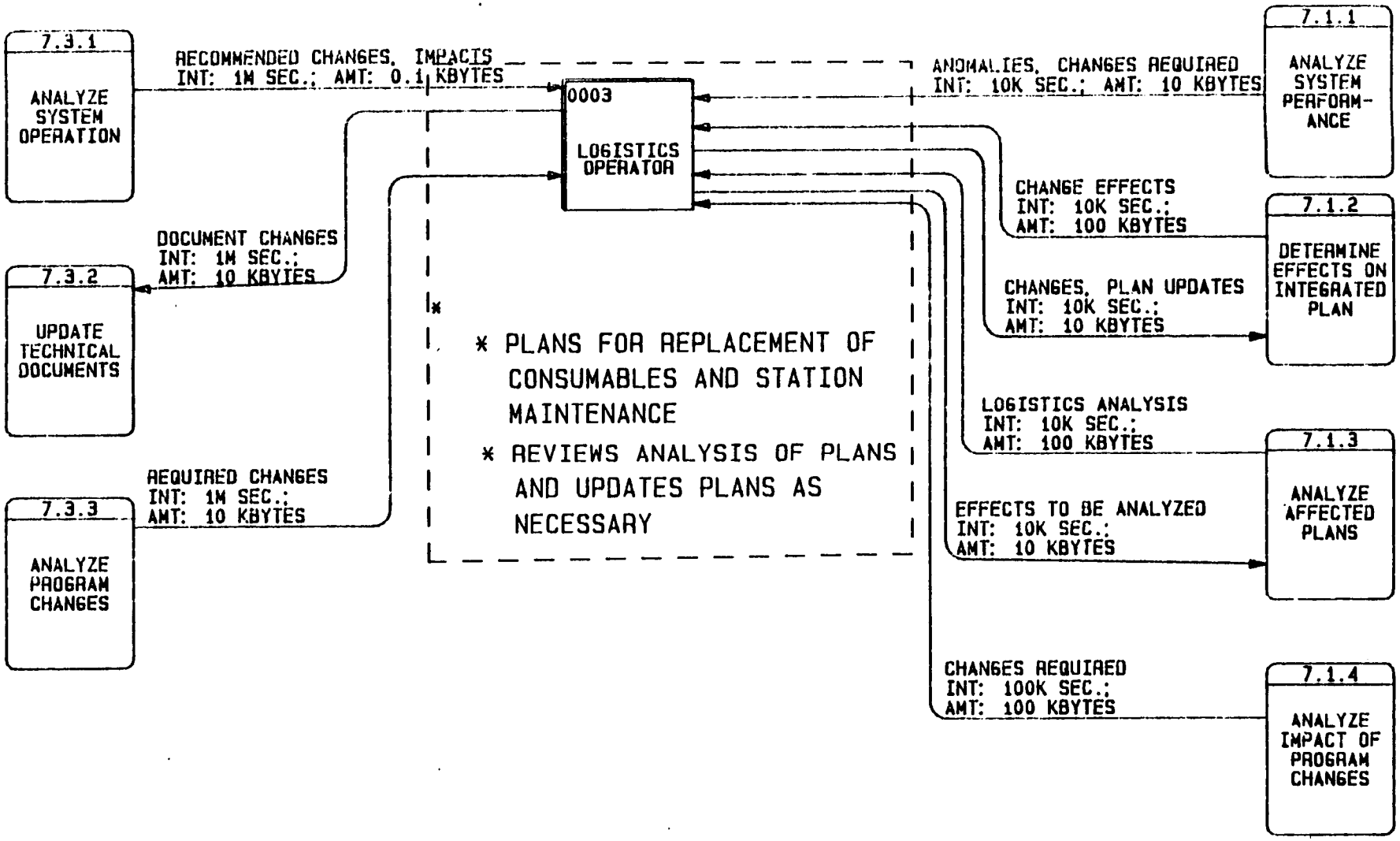
CUSTOMERS AND OPERATORS



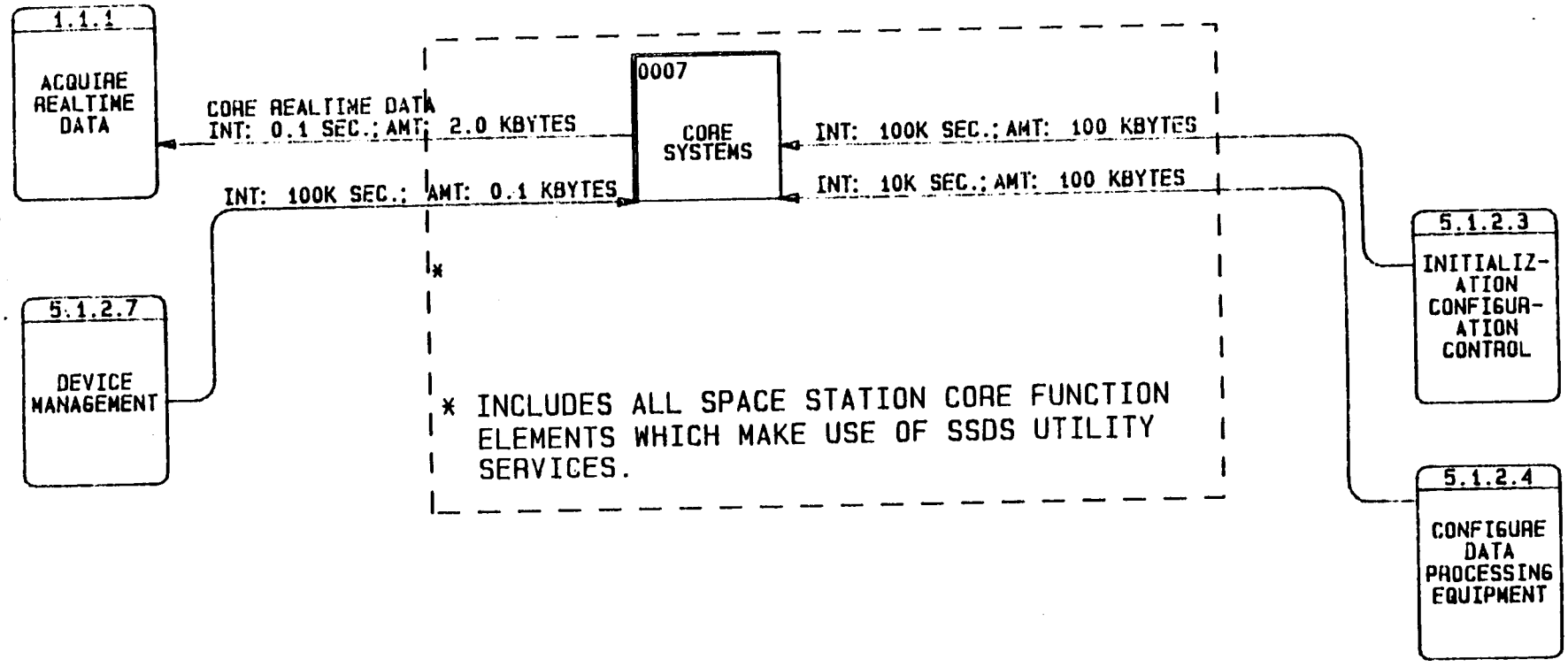
EXTERNAL INTERFACE: CUSTOMER/OPERATOR



EXTERNAL INTERFACE: ONBOARD CUSTOMER/OPERATOR



EXTERNAL INTERFACE: LOGISTICS OPERATOR



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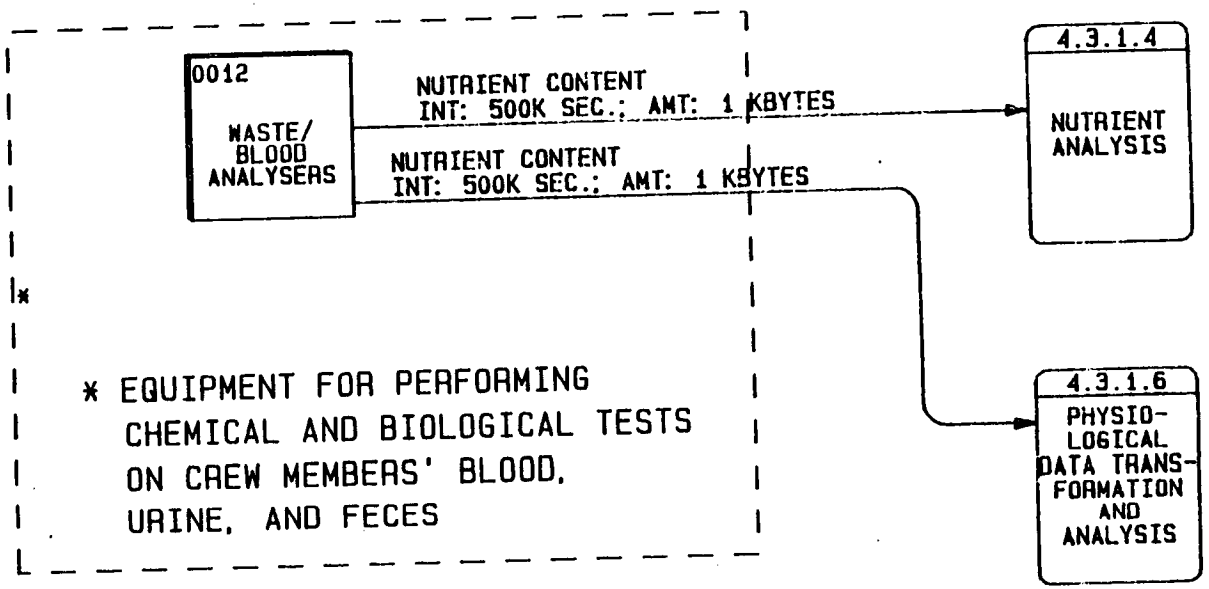
EXTERNAL INTERFACE: CORE SYSTEMS



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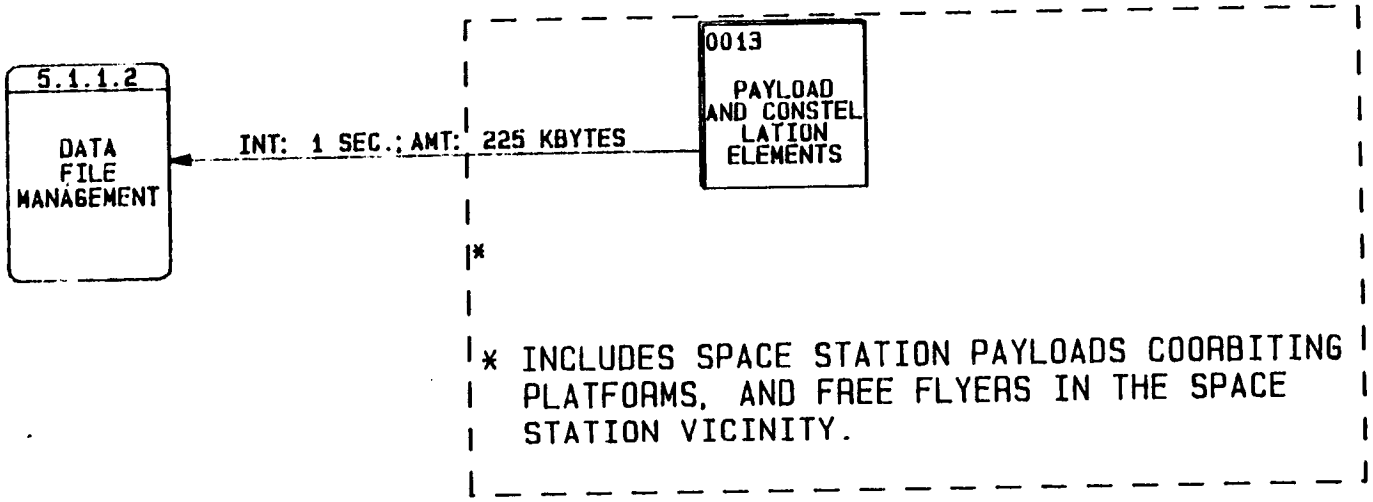
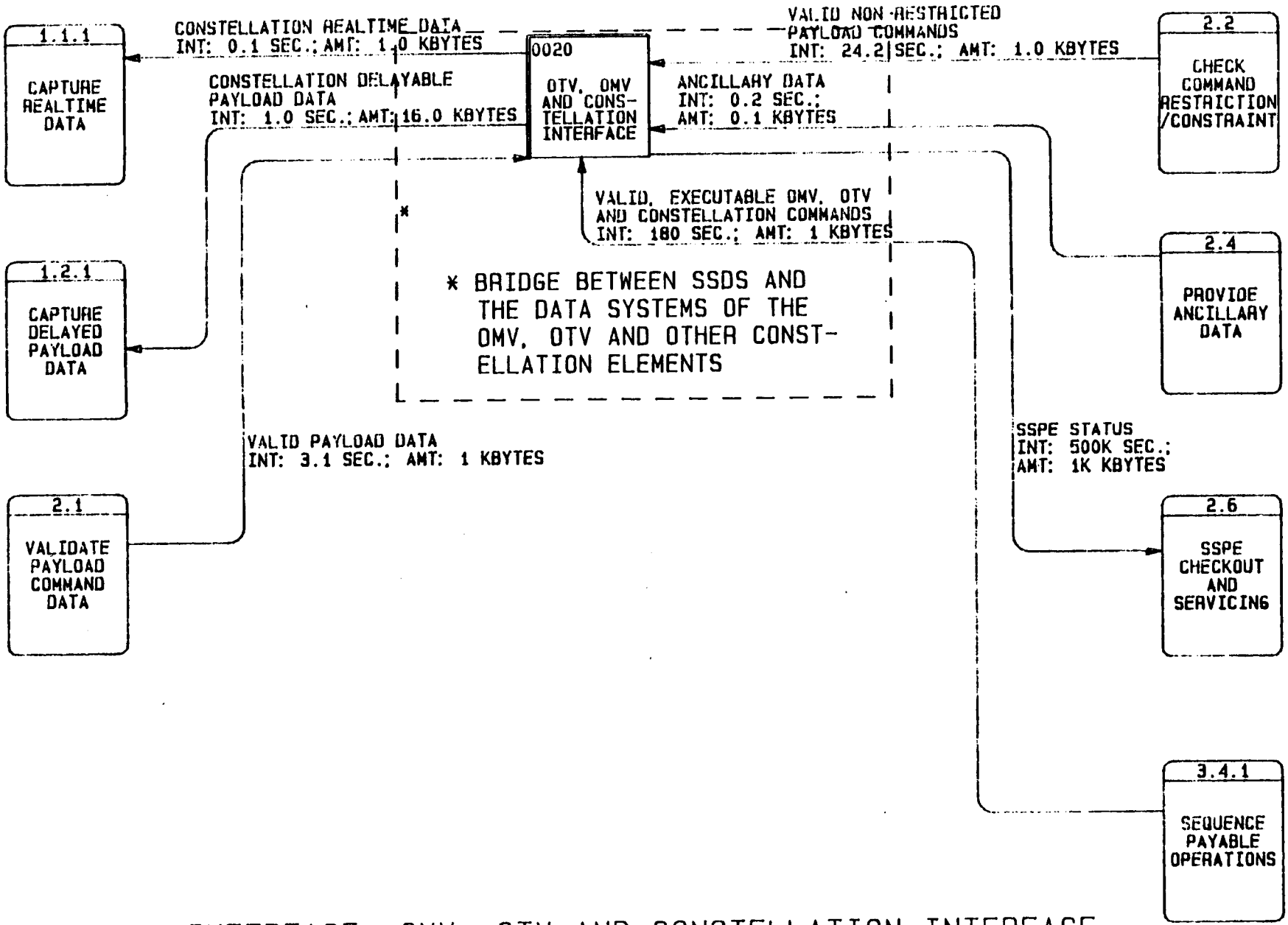


EXTERNAL INTERFACE: PAYLOAD AND CONSTELLATION ELEMENTS



EXTERNAL INTERFACE: OMV, OTV AND CONSTELLATION INTERFACE

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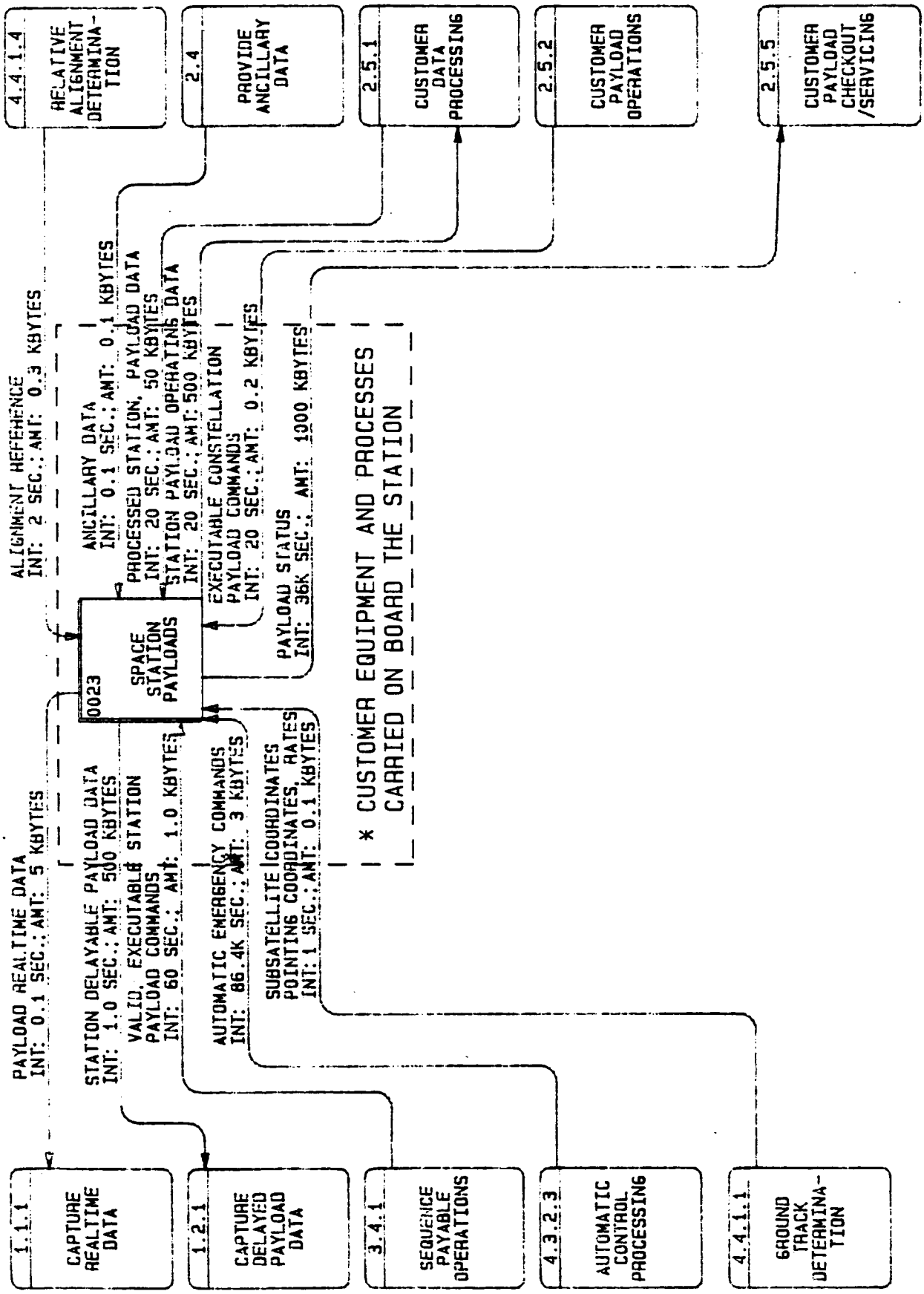
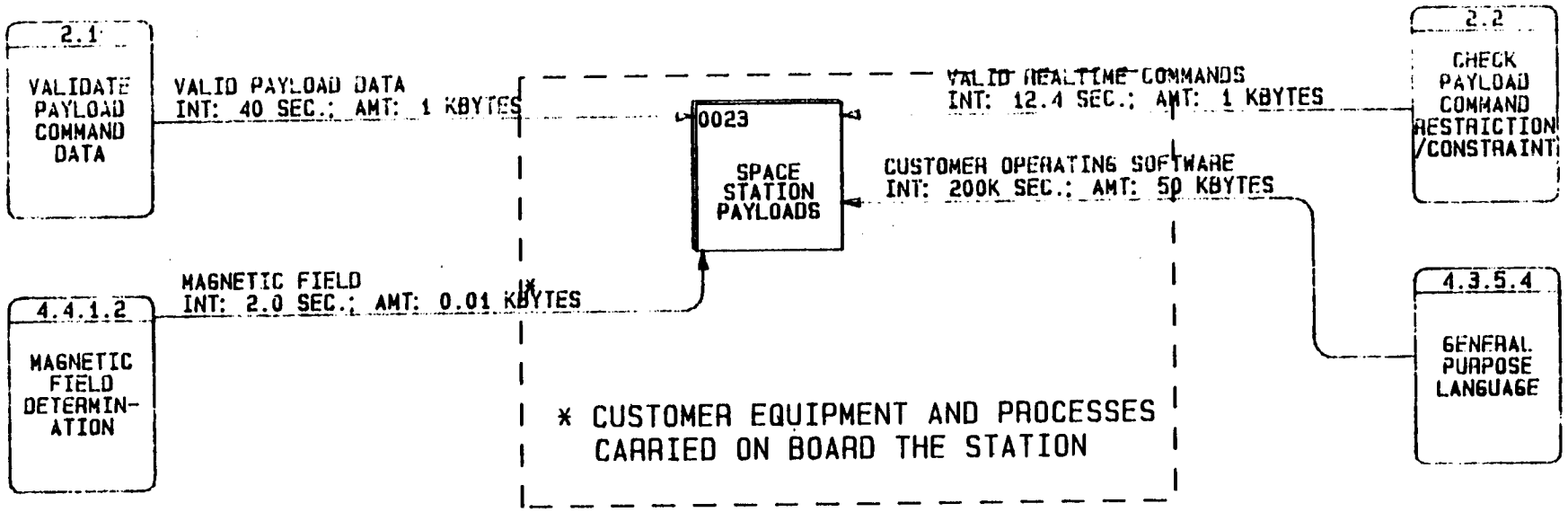


EXTERNAL INTERFACE: SPACE STATION PAYLOADS PART I



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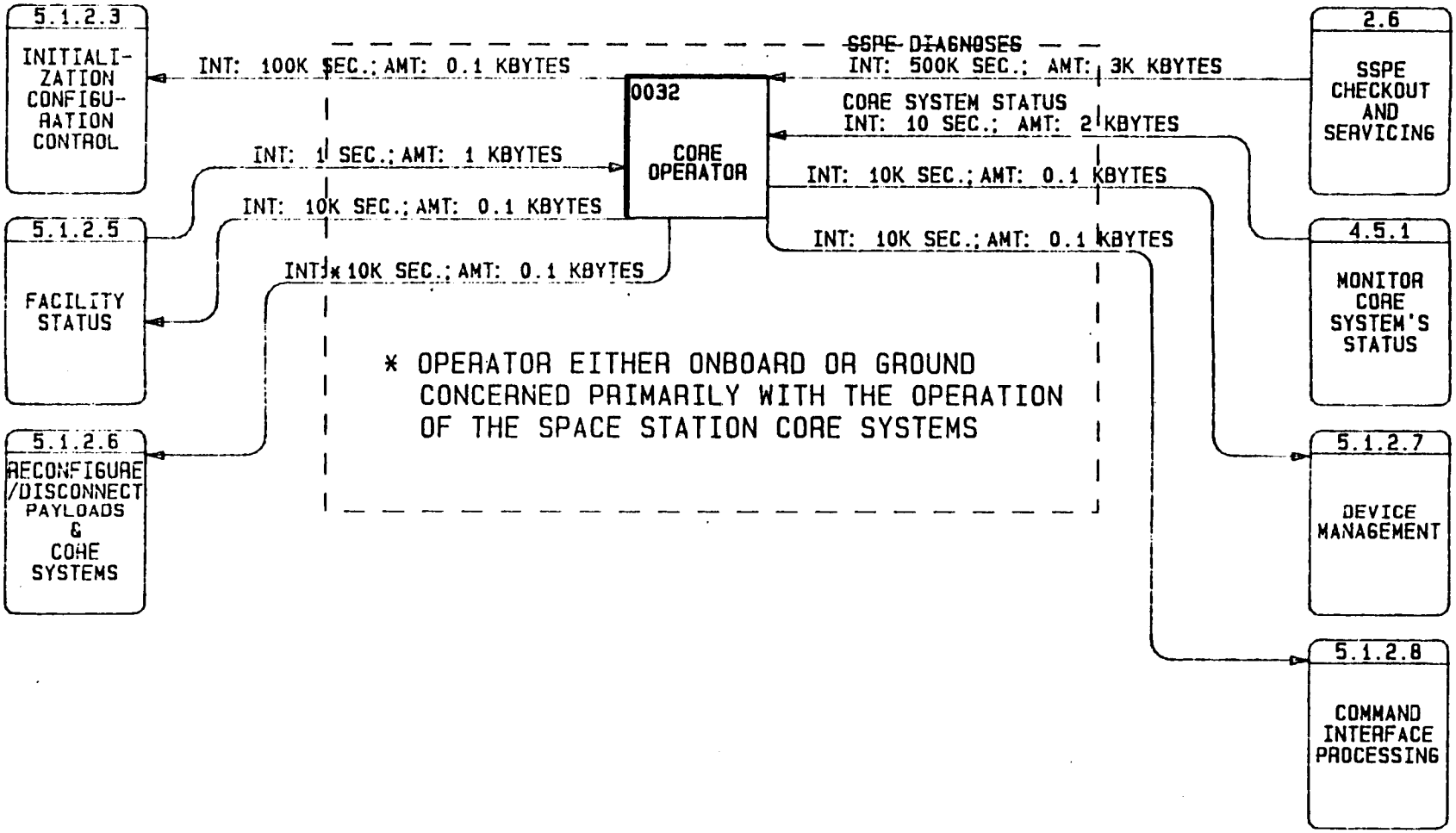

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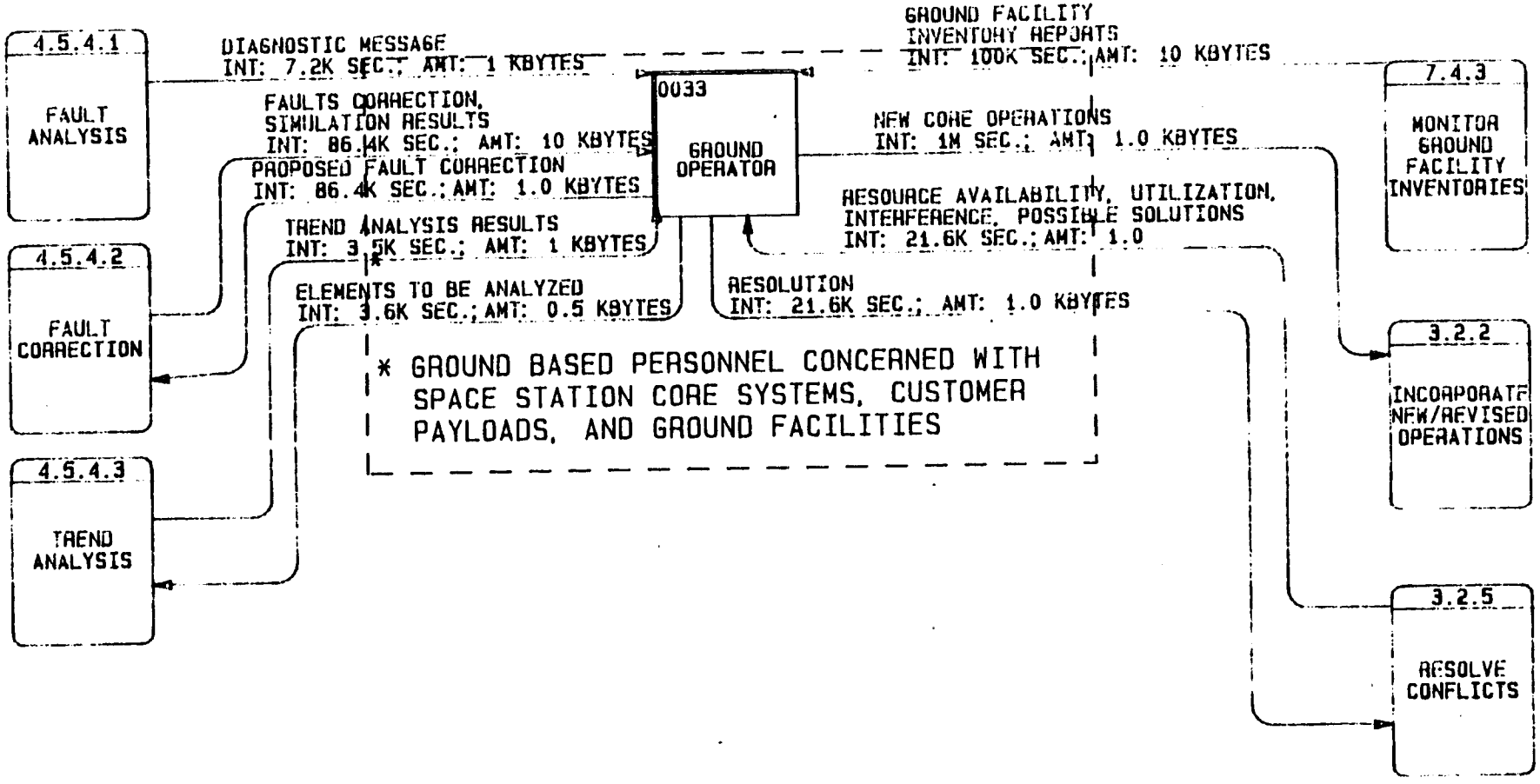
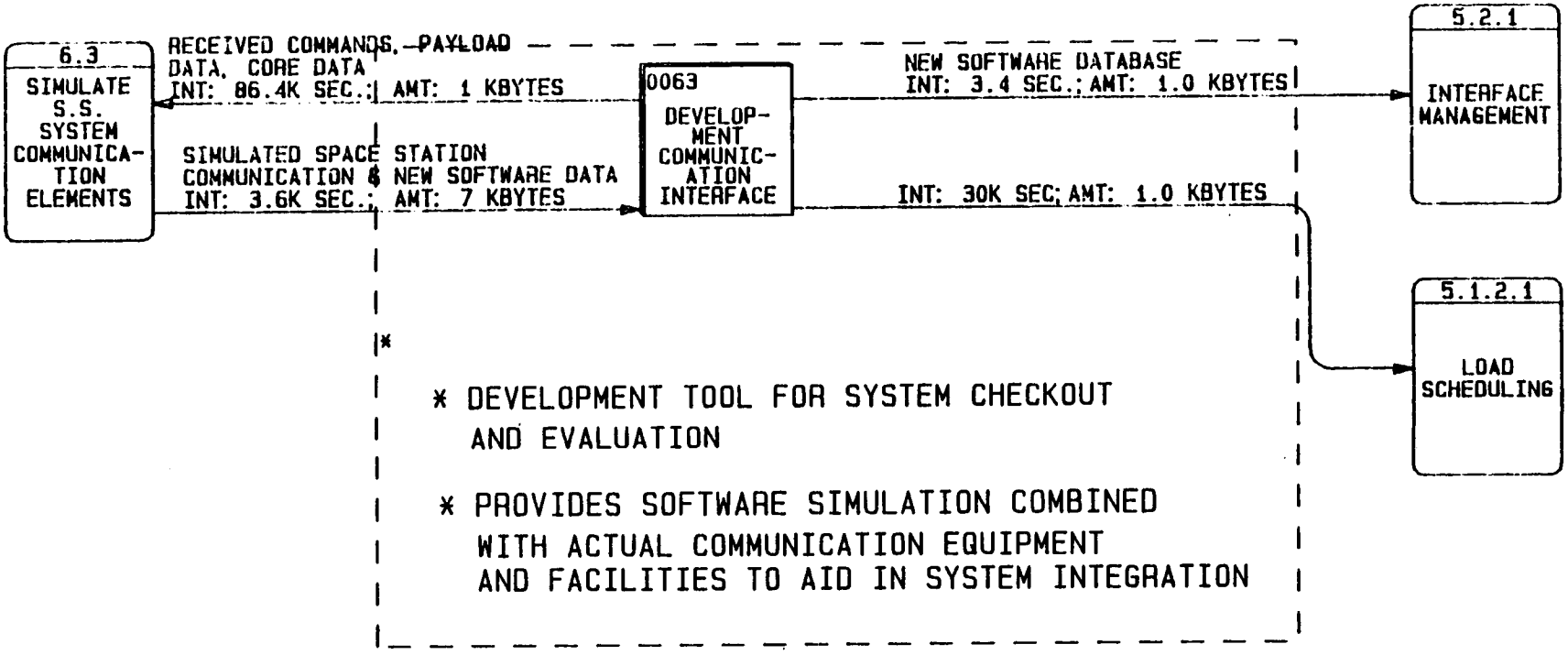
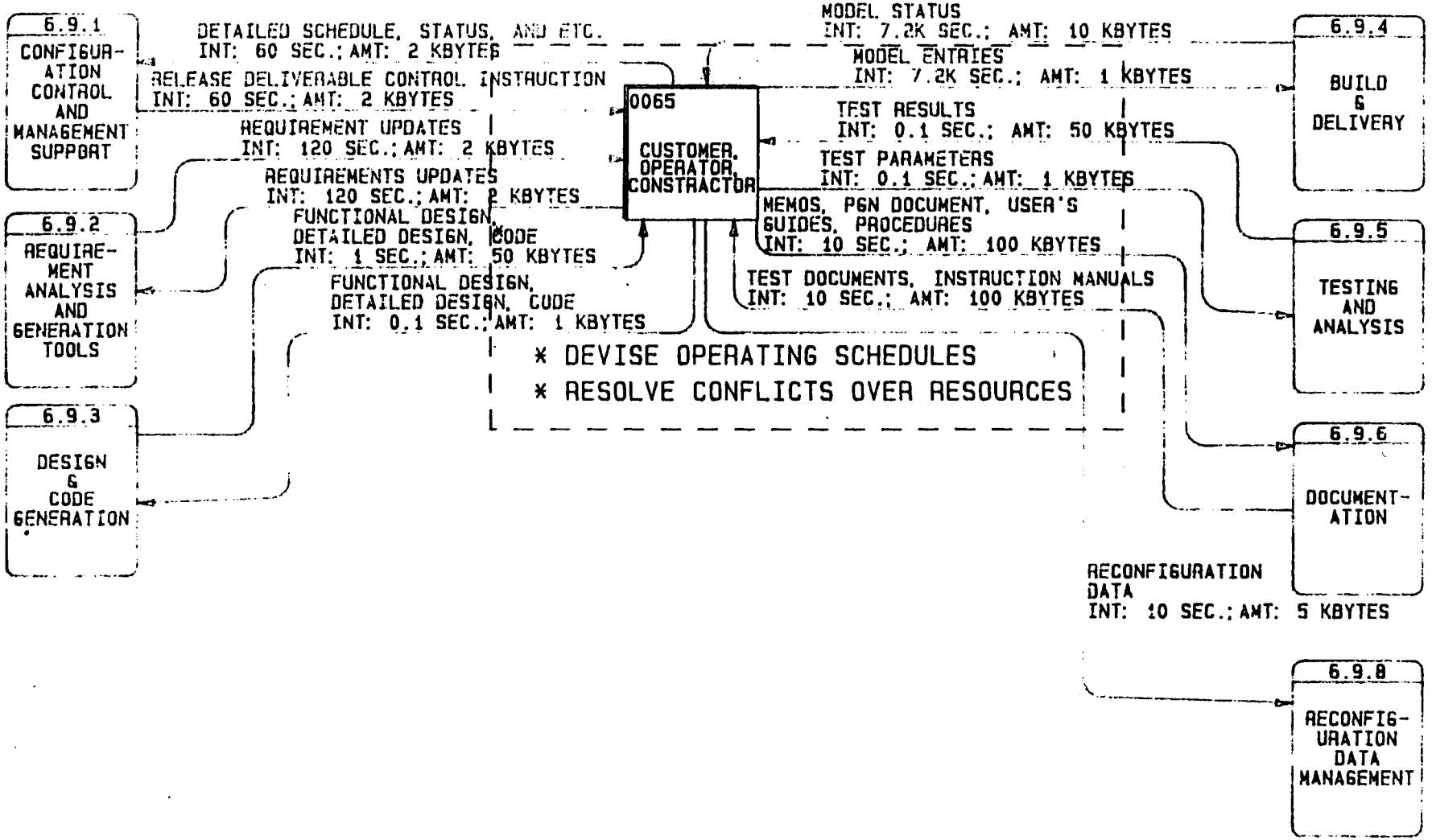


EXTERNAL INTERFACE: GROUND OPERATOR



EXTERNAL INTERFACE: DEVELOPMENT COMMUNICATION INTERFACE



EXTERNAL INTERFACE: CUSTOMER, OPERATOR, CONTRACTOR PART I

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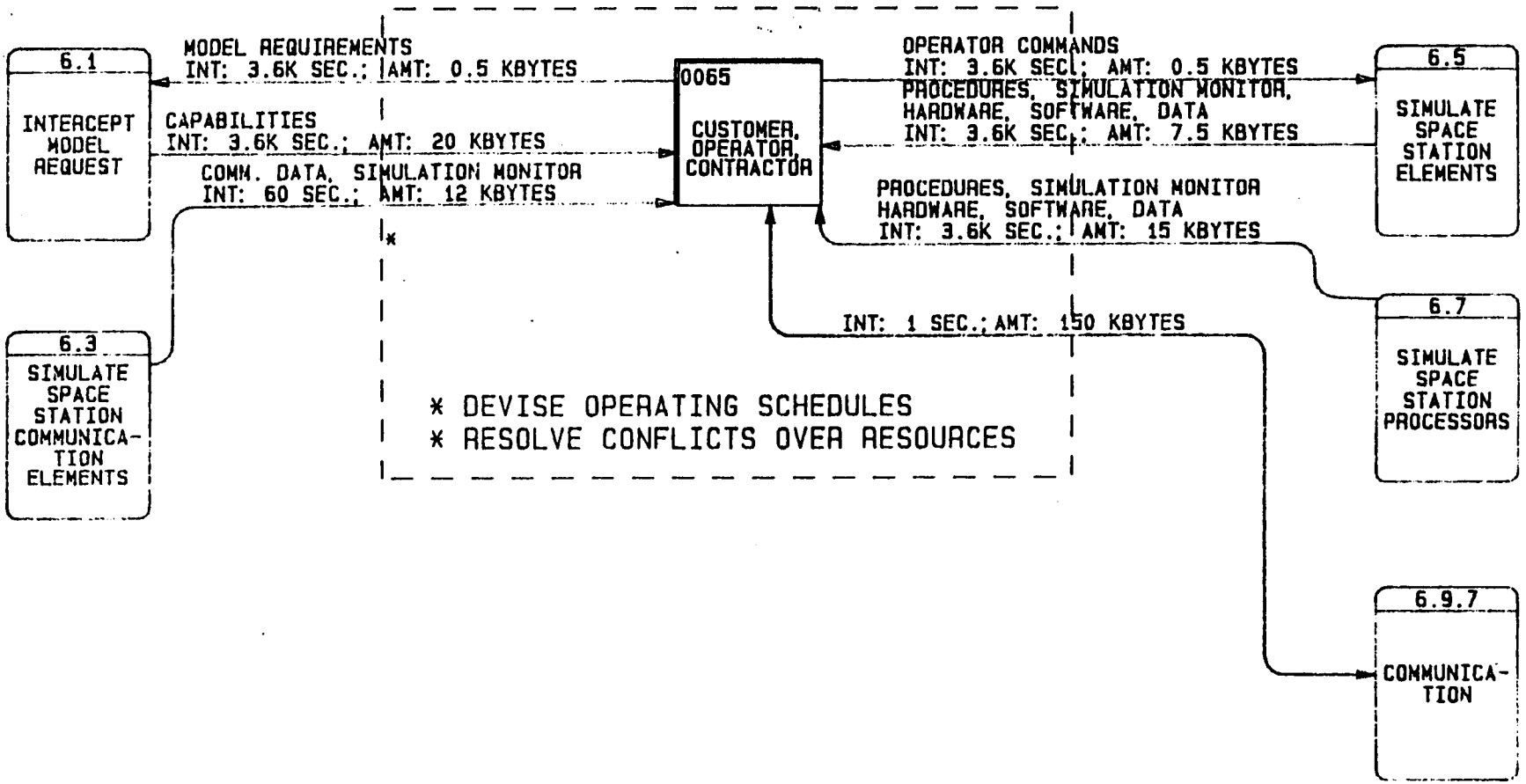
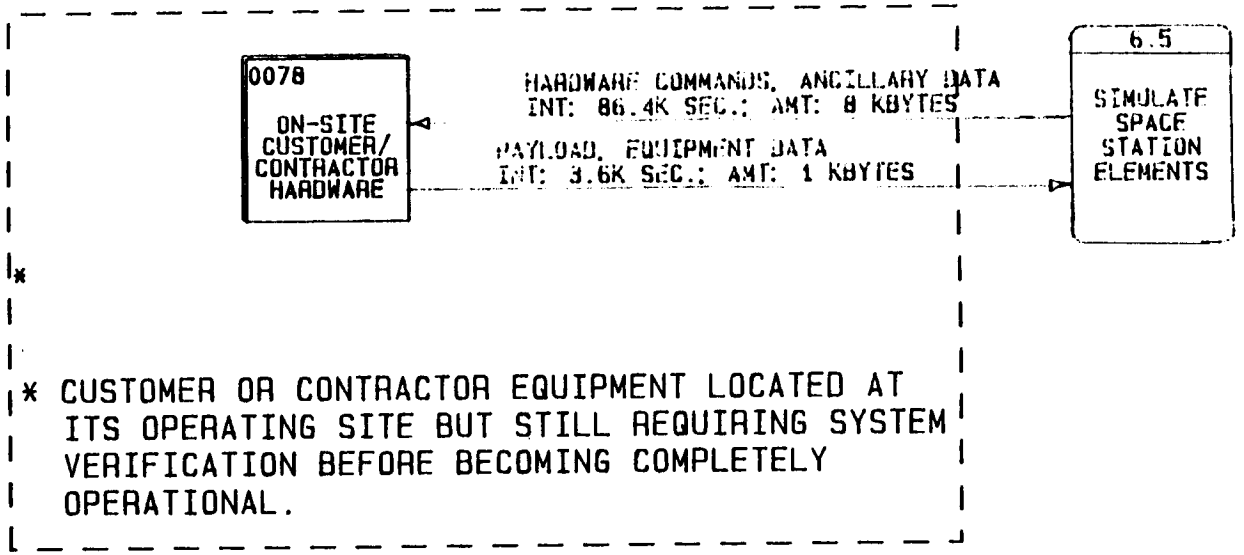


EXTERNAL INTERFACE: CUSTOMER, OPERATOR, CONTRACTOR PART II



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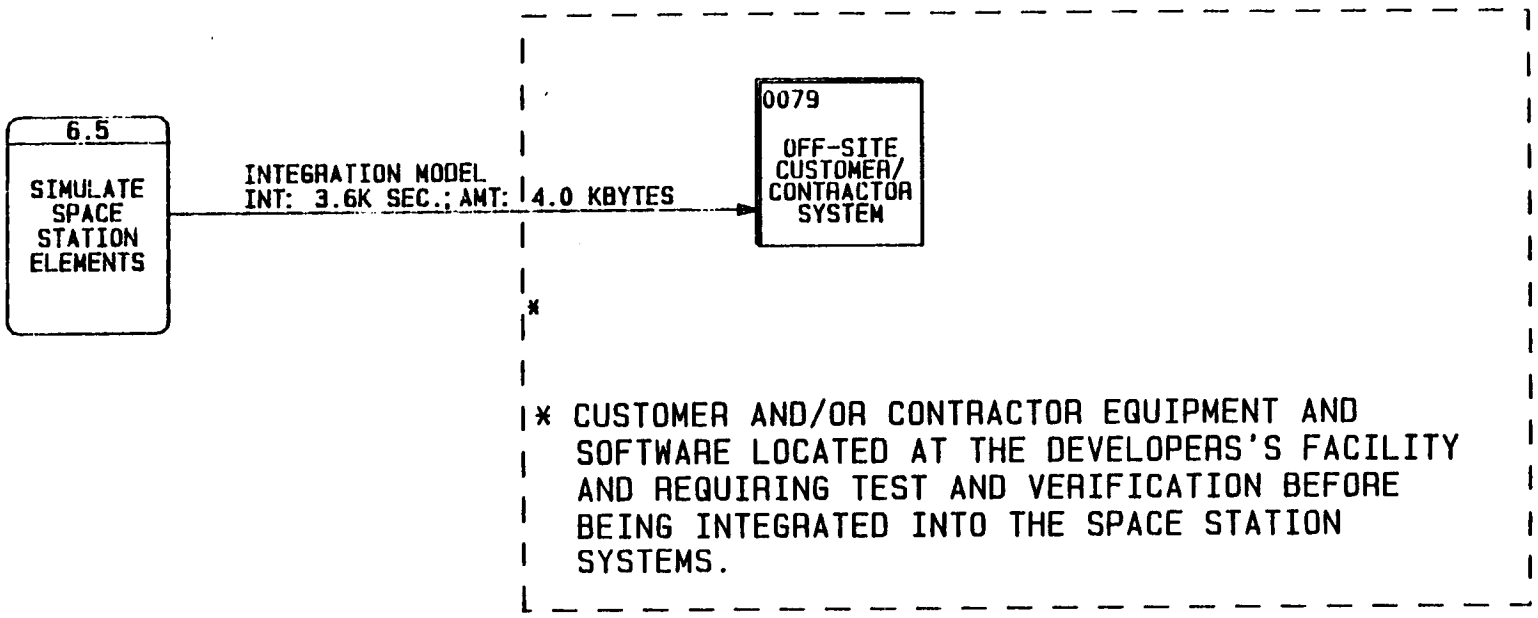
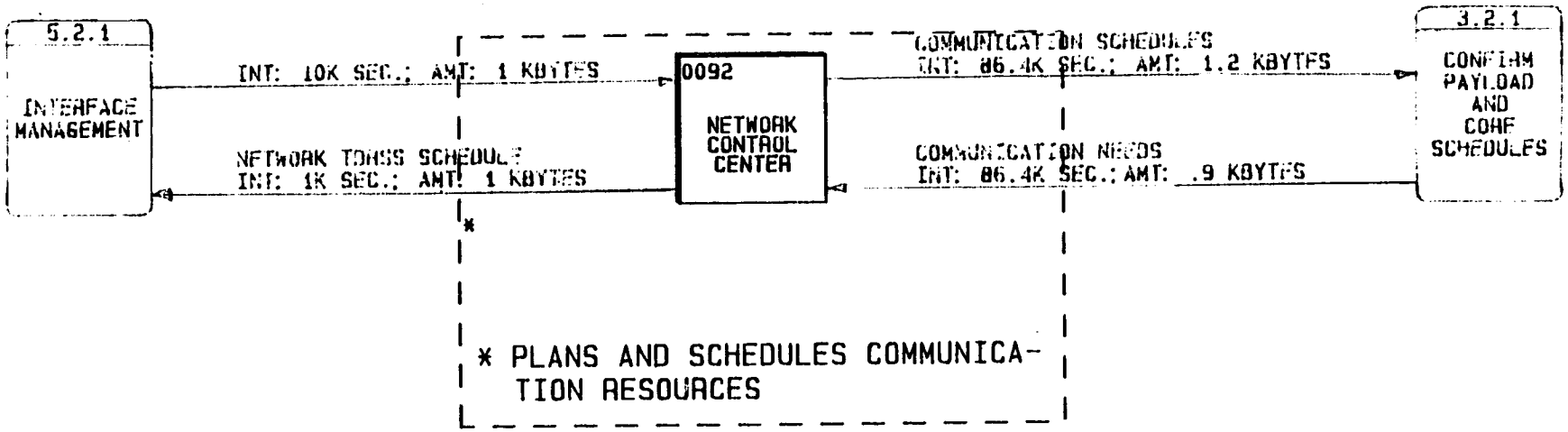
EXTERNAL INTERFACE: ON-SITE CUSTOMER/CONTRACTOR HARDWARE



EXTERNAL INTERFACE: OFF-SITE CUSTOMER/CONTRACTOR SYSTEM



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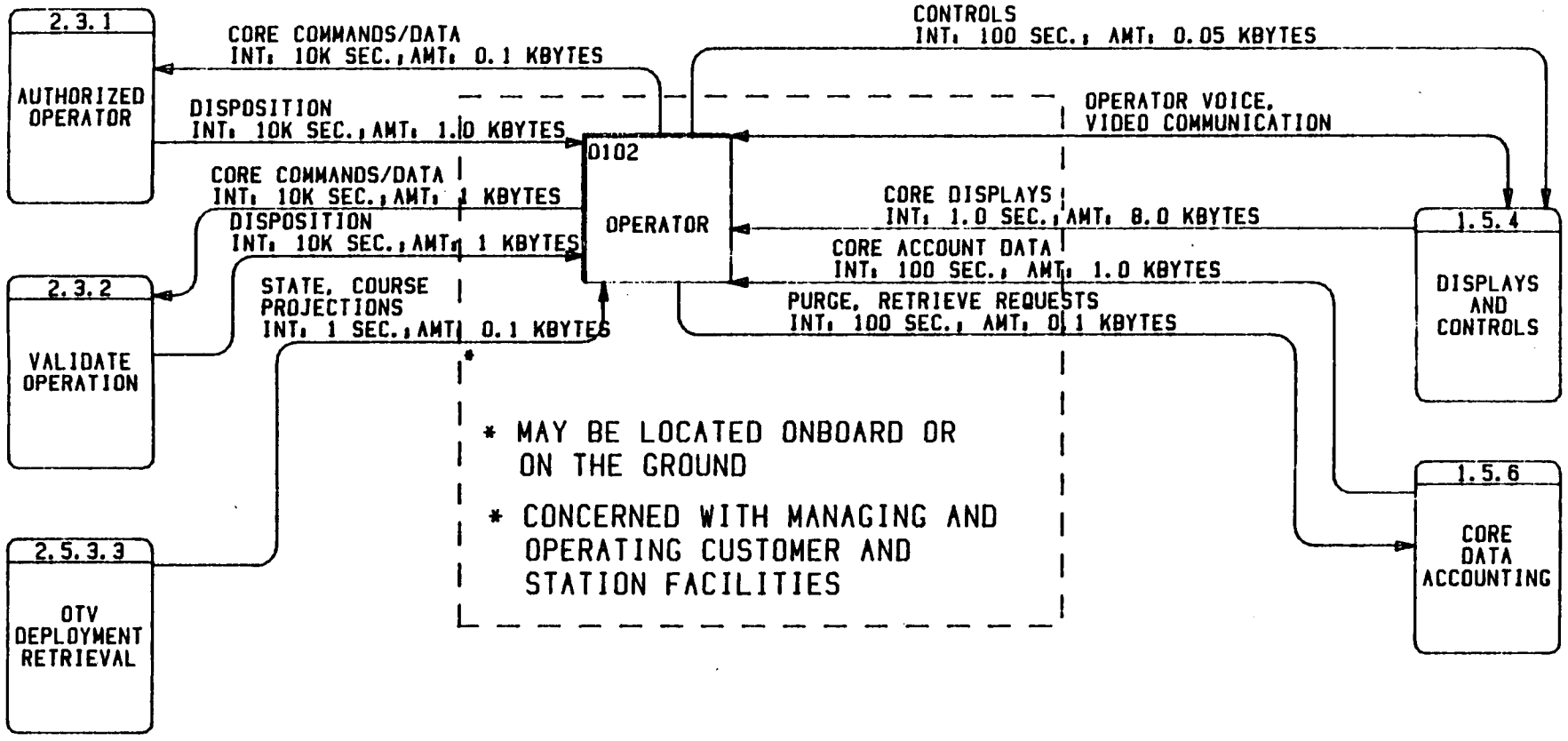
EXTERNAL INTERFACE: NETWORK CONTROL CENTER



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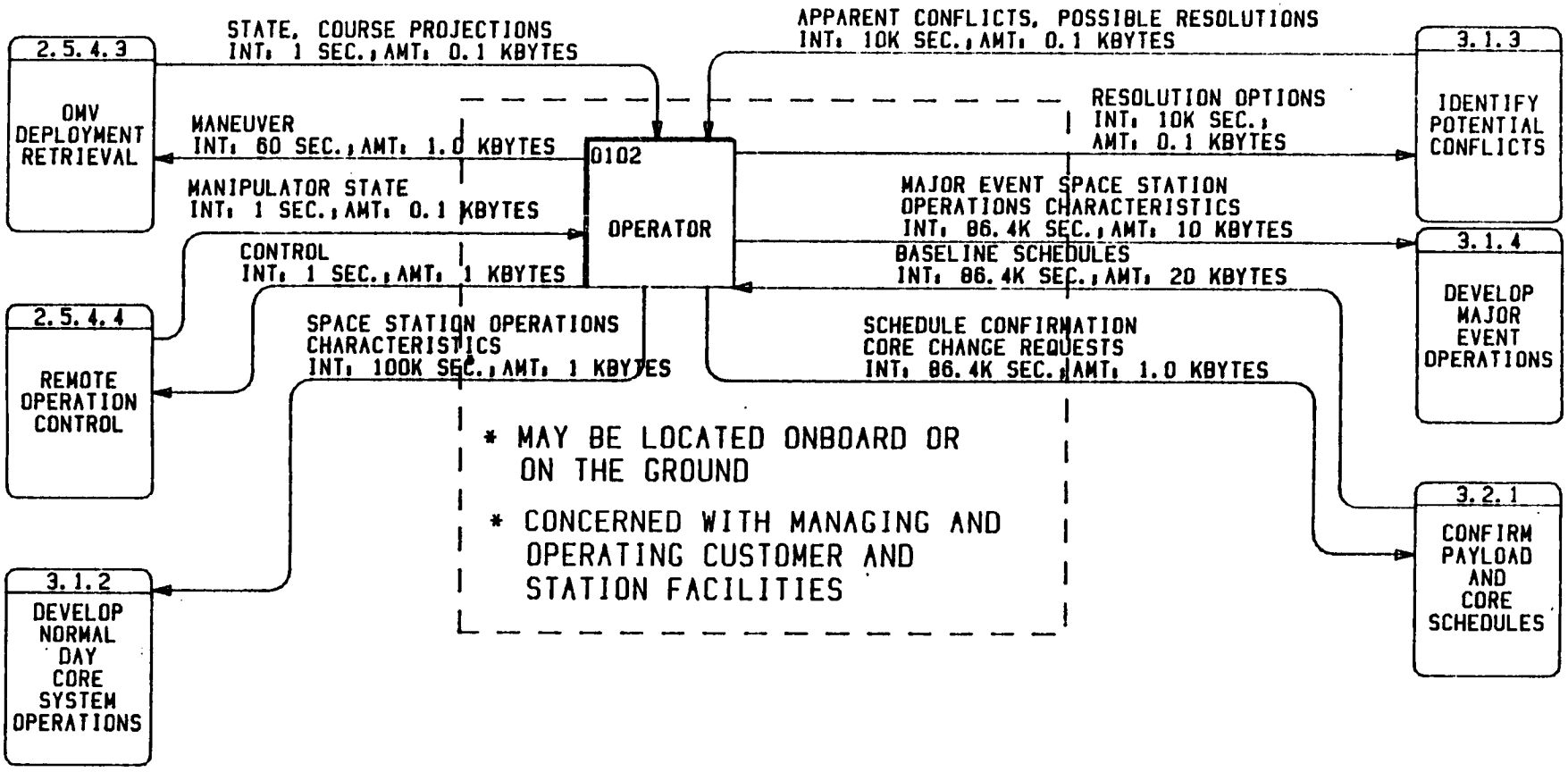
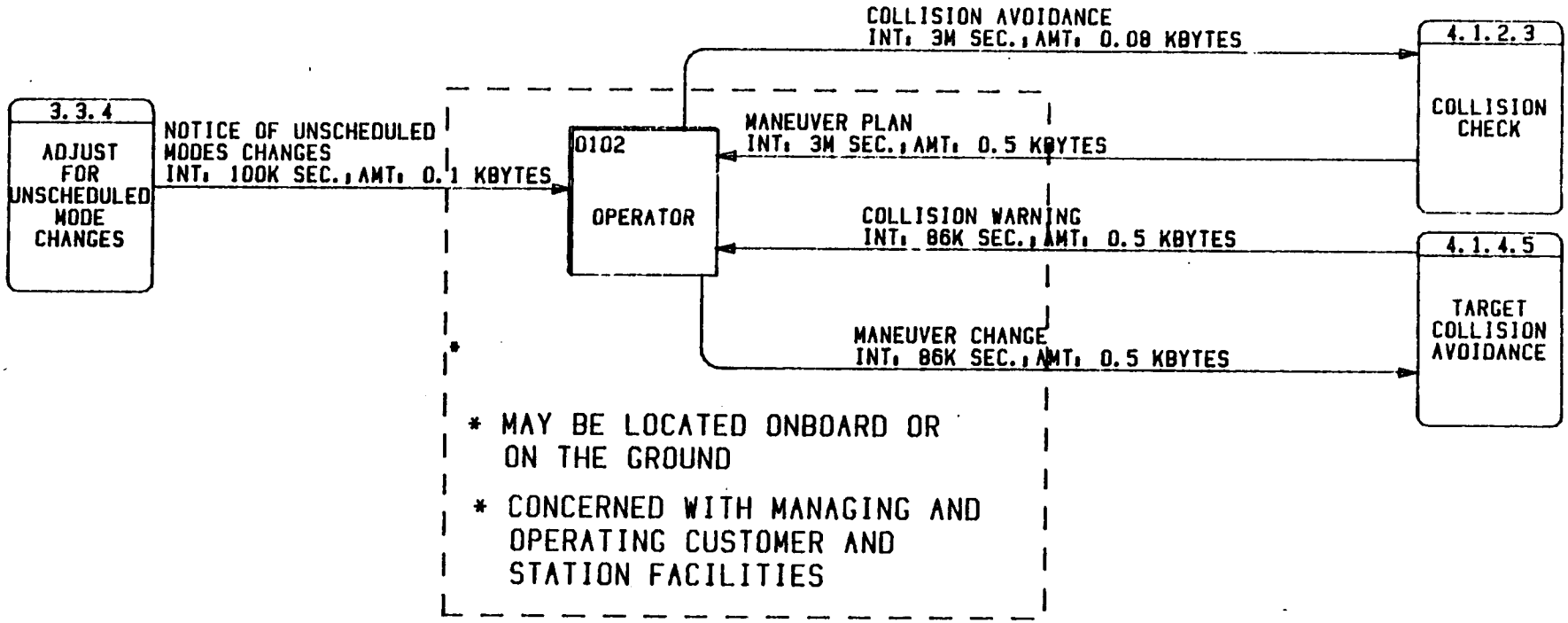
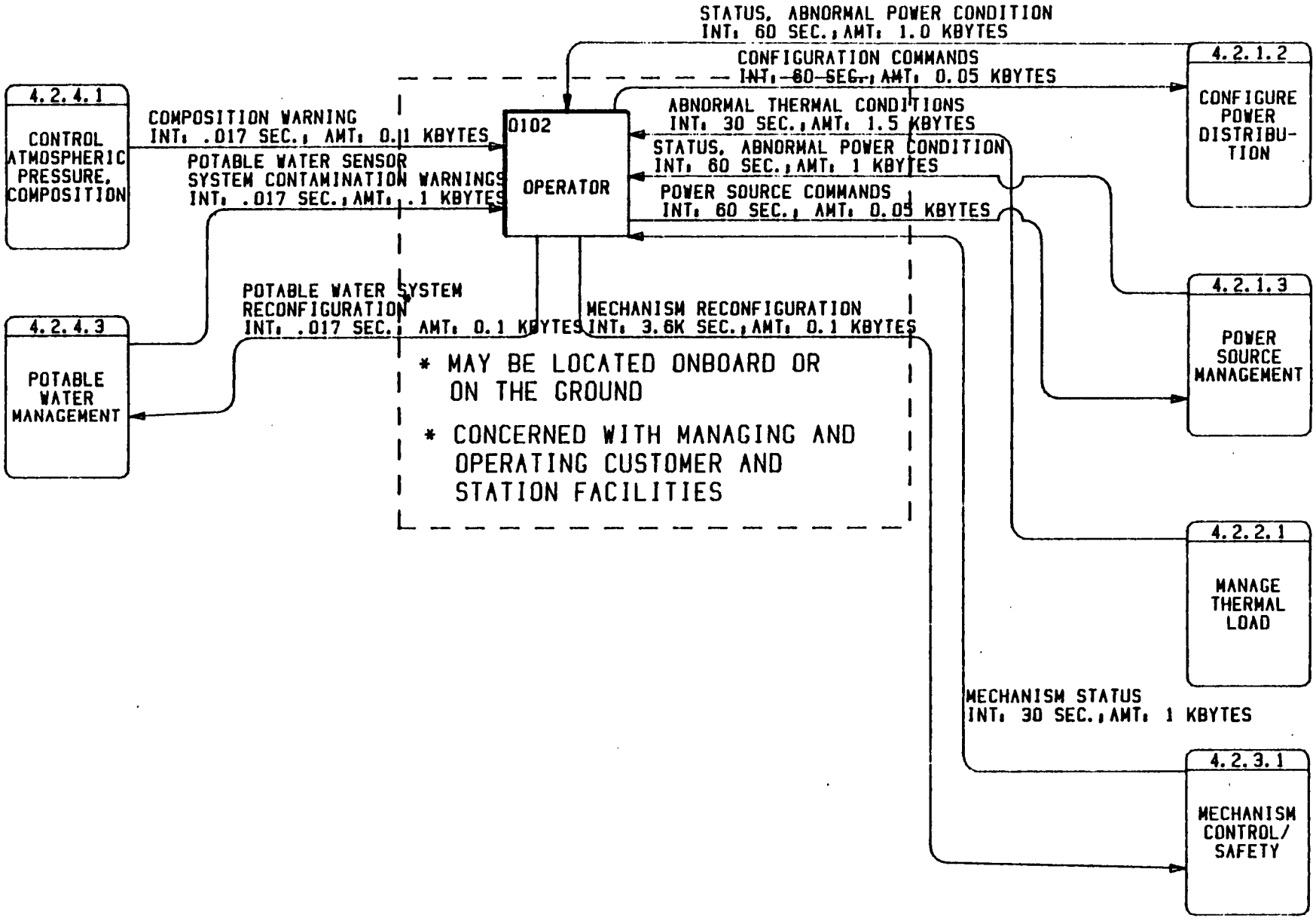


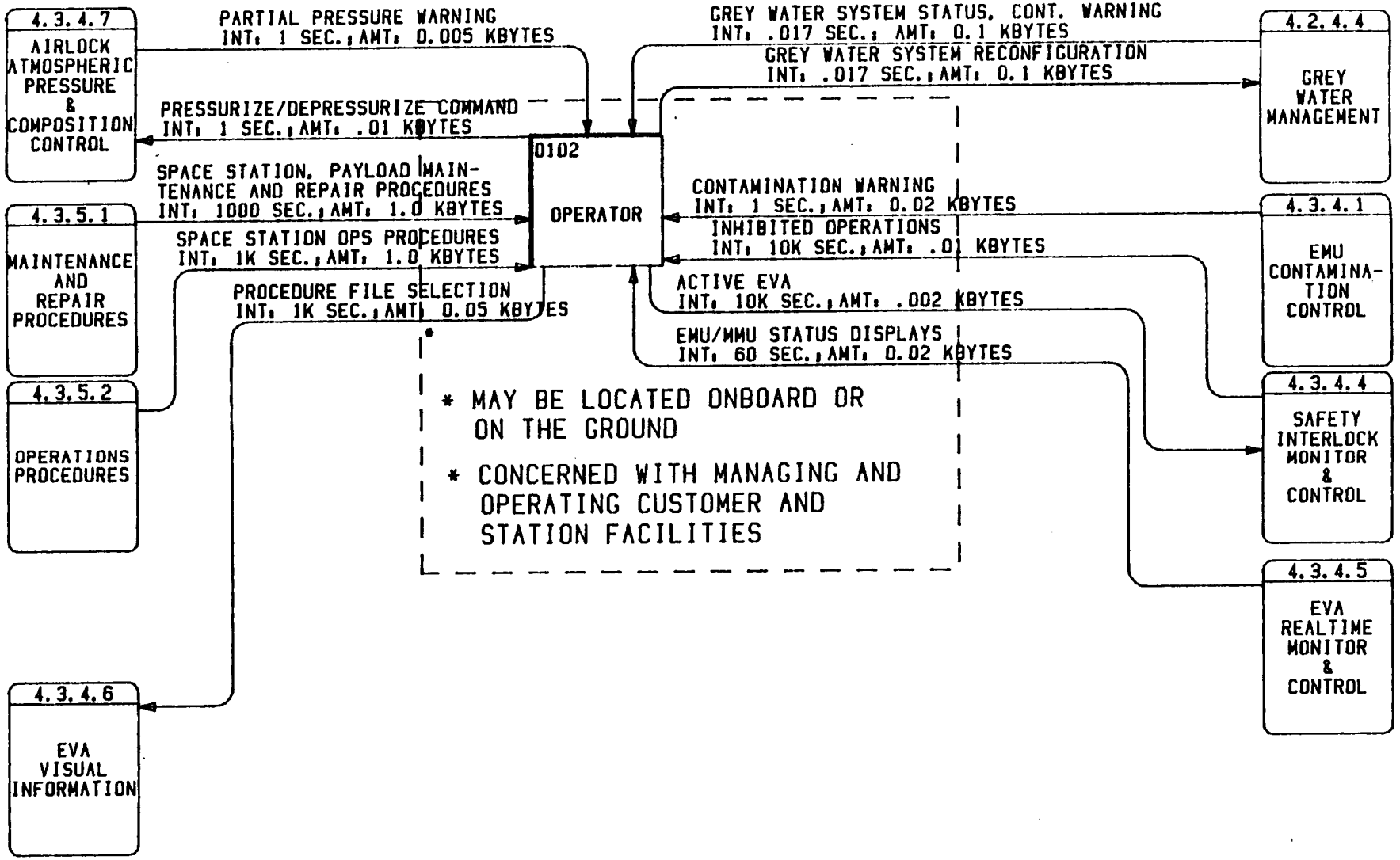
EXTERNAL INTERFACE: OPERATOR PART II



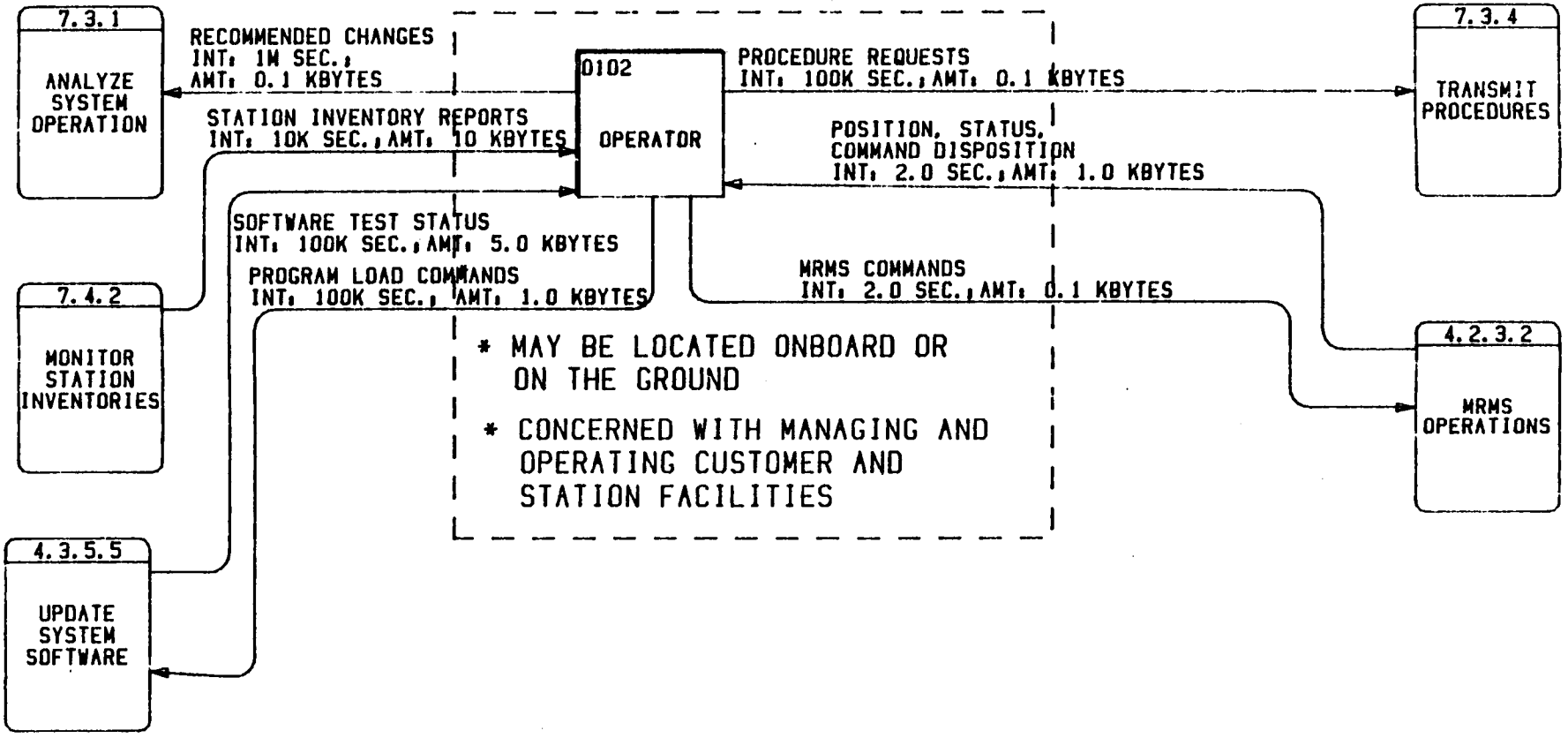
EXTERNAL INTERFACE: OPERATOR PART III



EXTERNAL INTERFACE: OPERATOR PART IV



EXTERNAL INTERFACE: OPERATOR PART V



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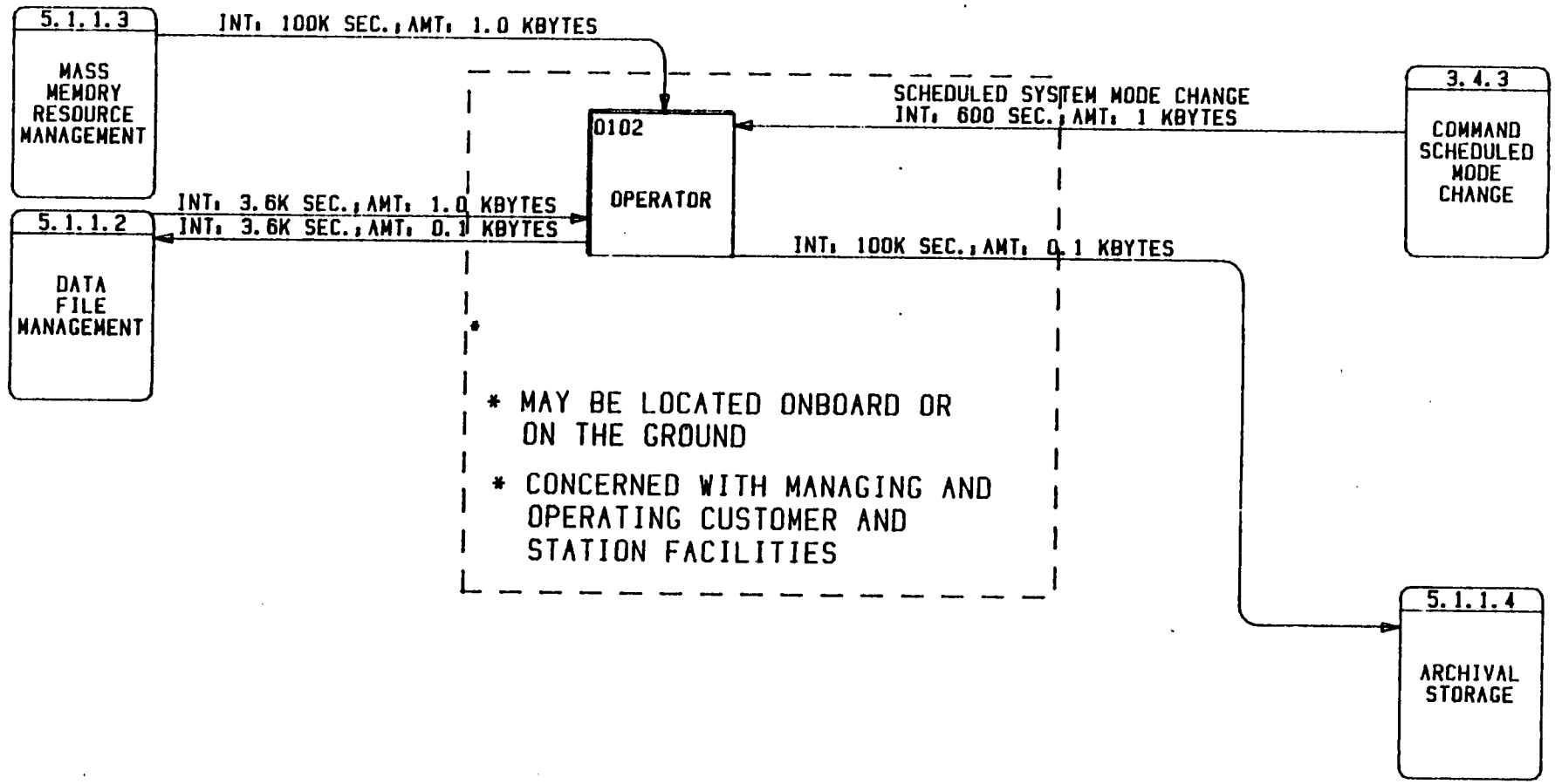

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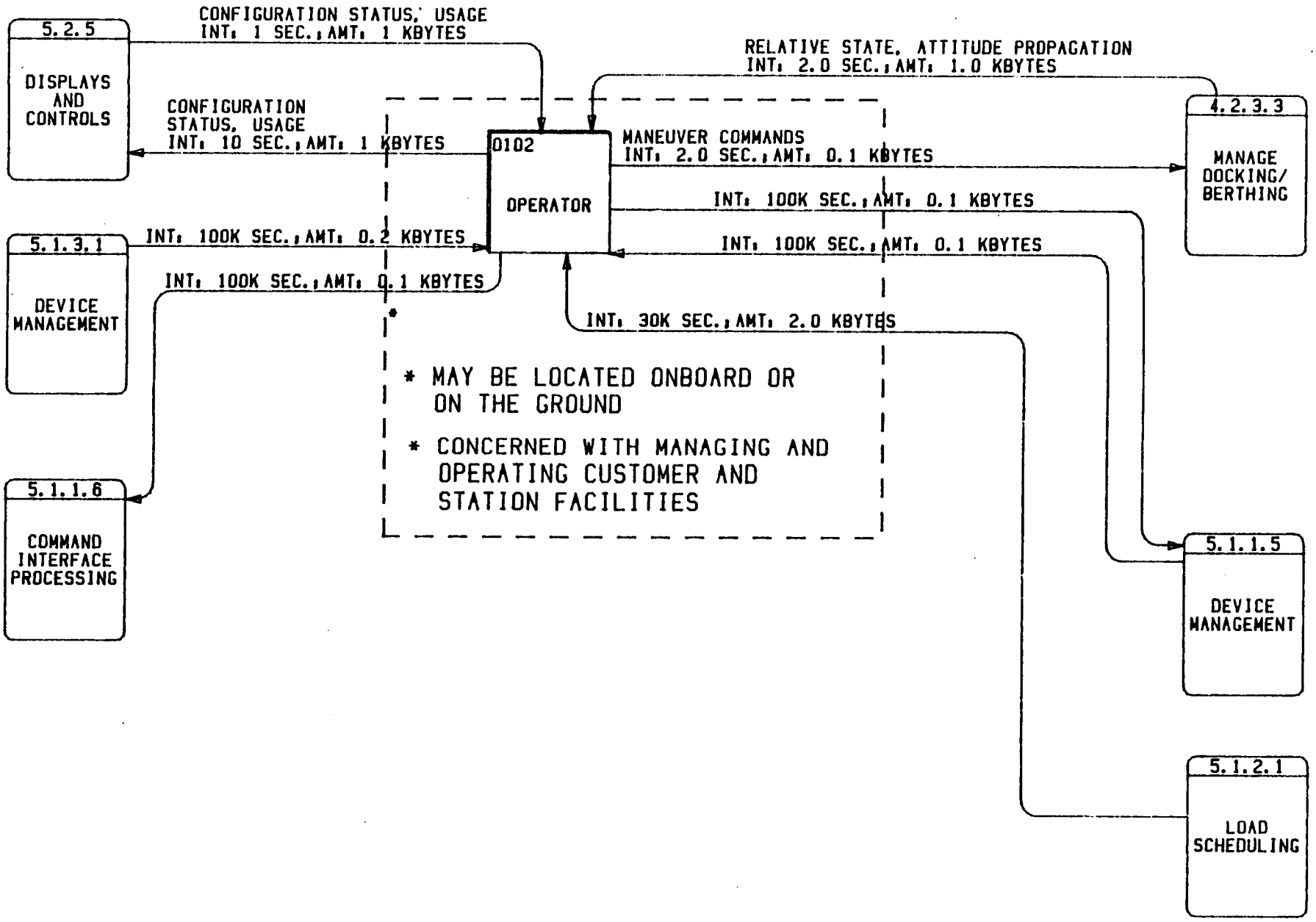

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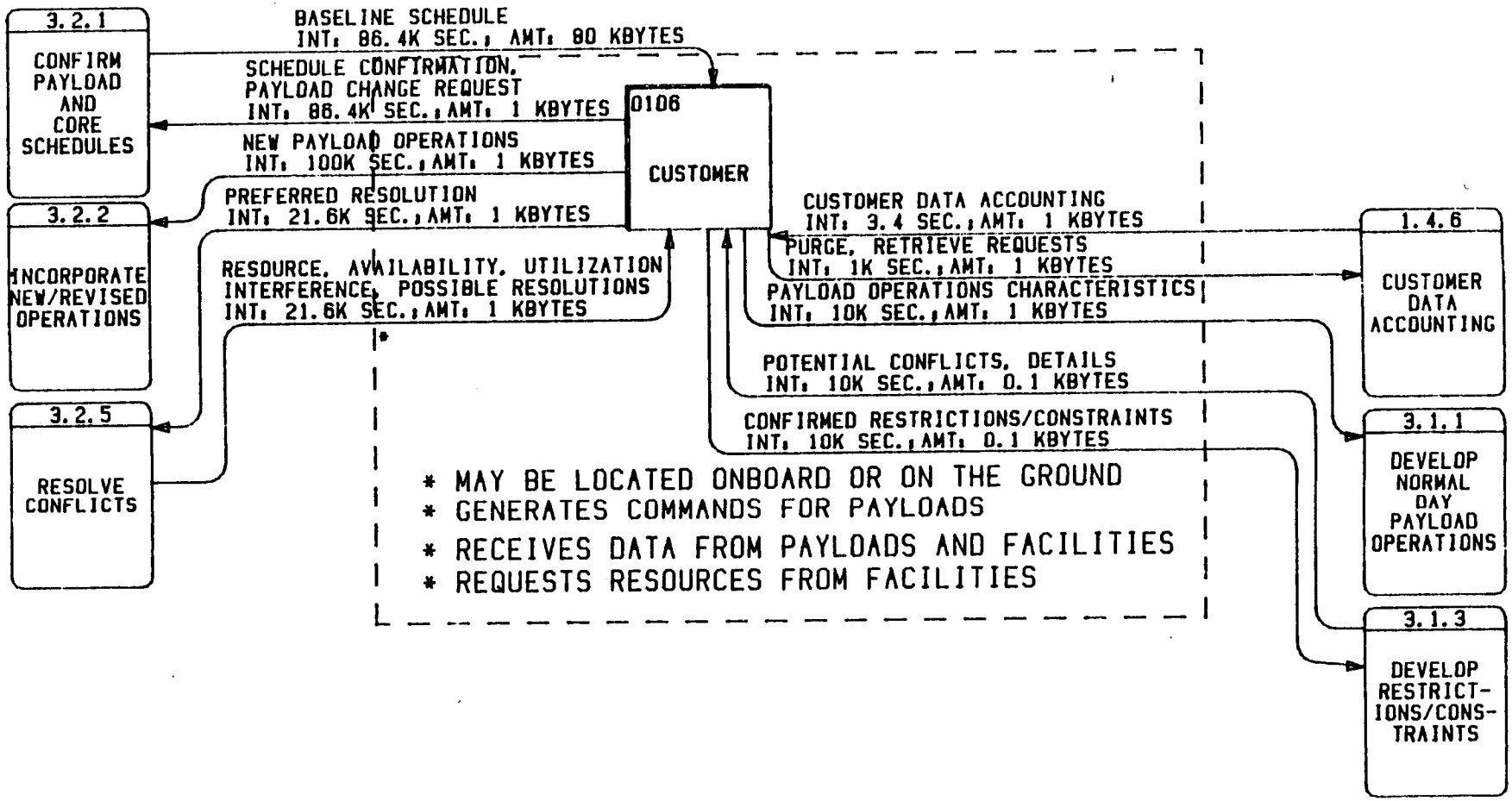

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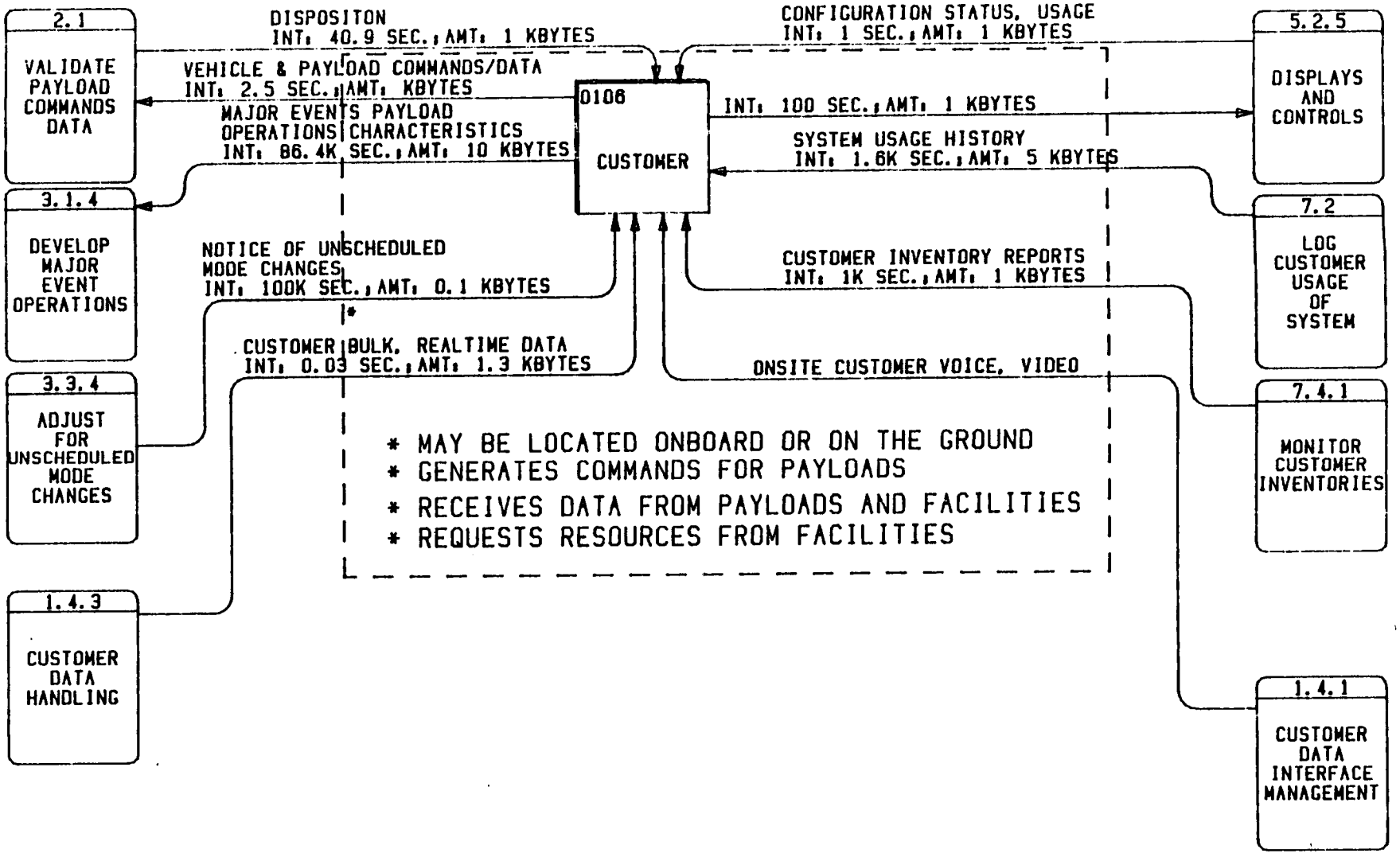
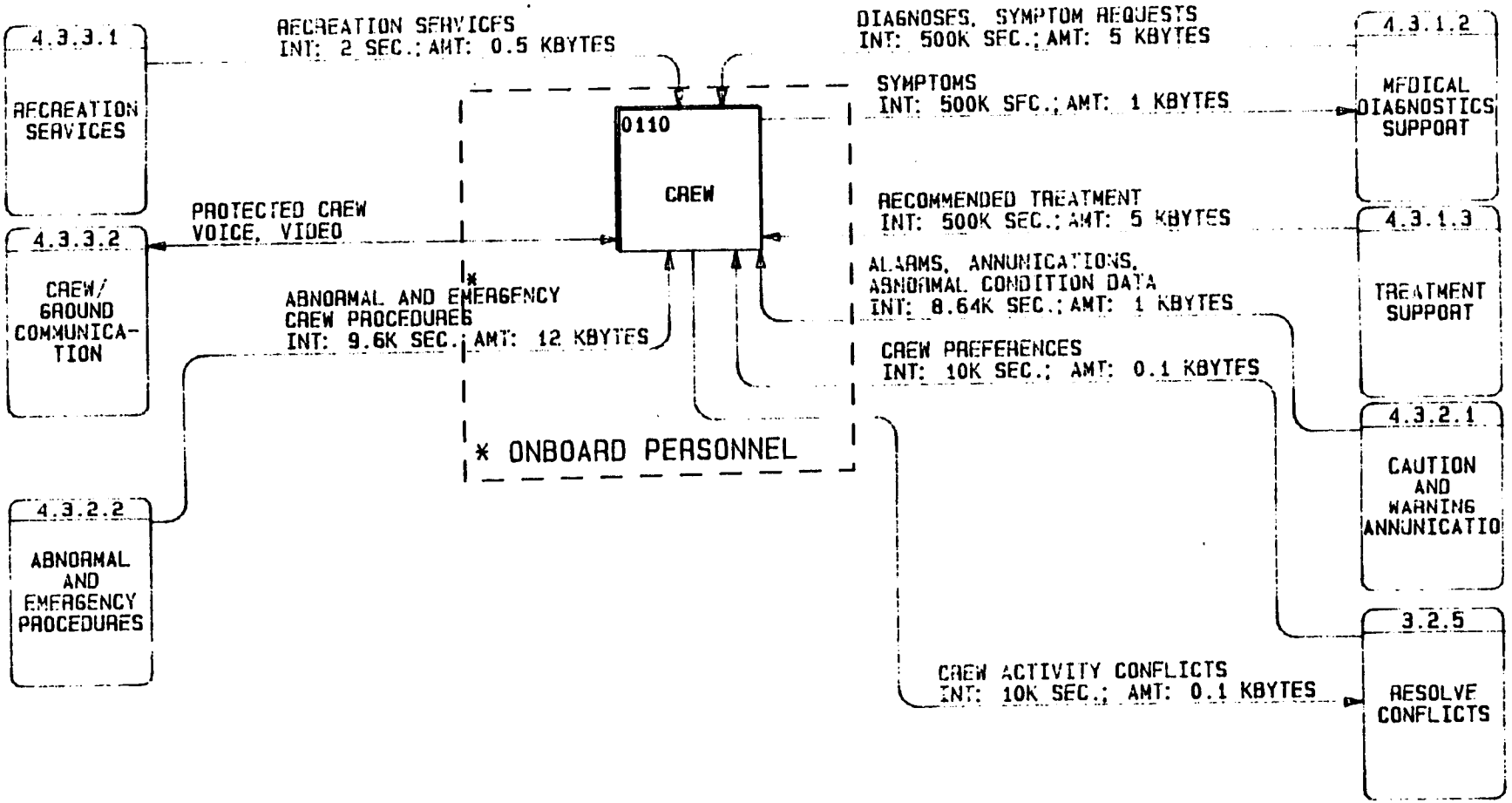


EXTERNAL INTERFACE: CUSTOMER PART II



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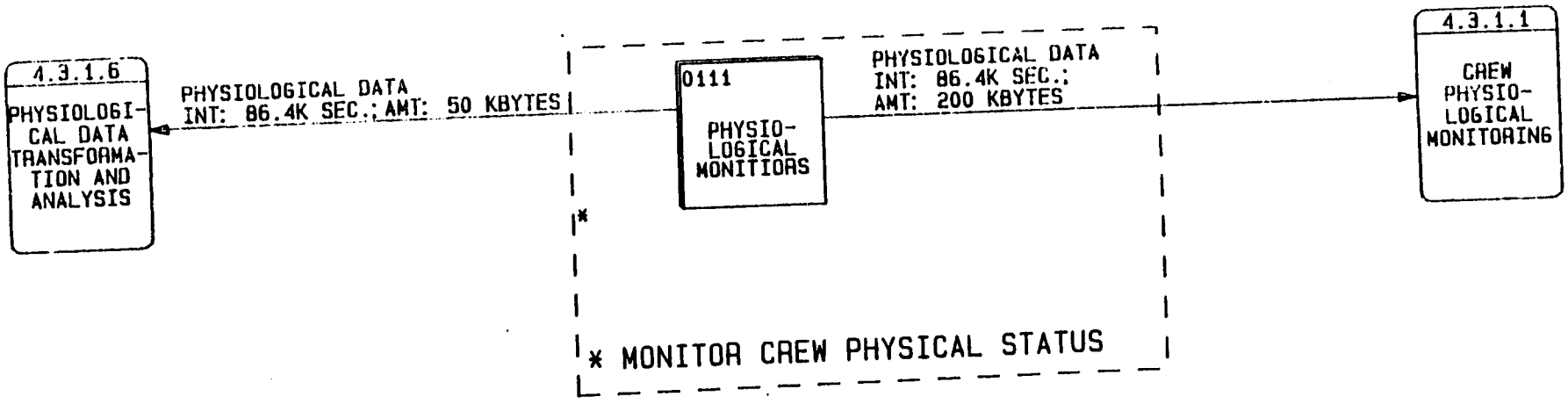

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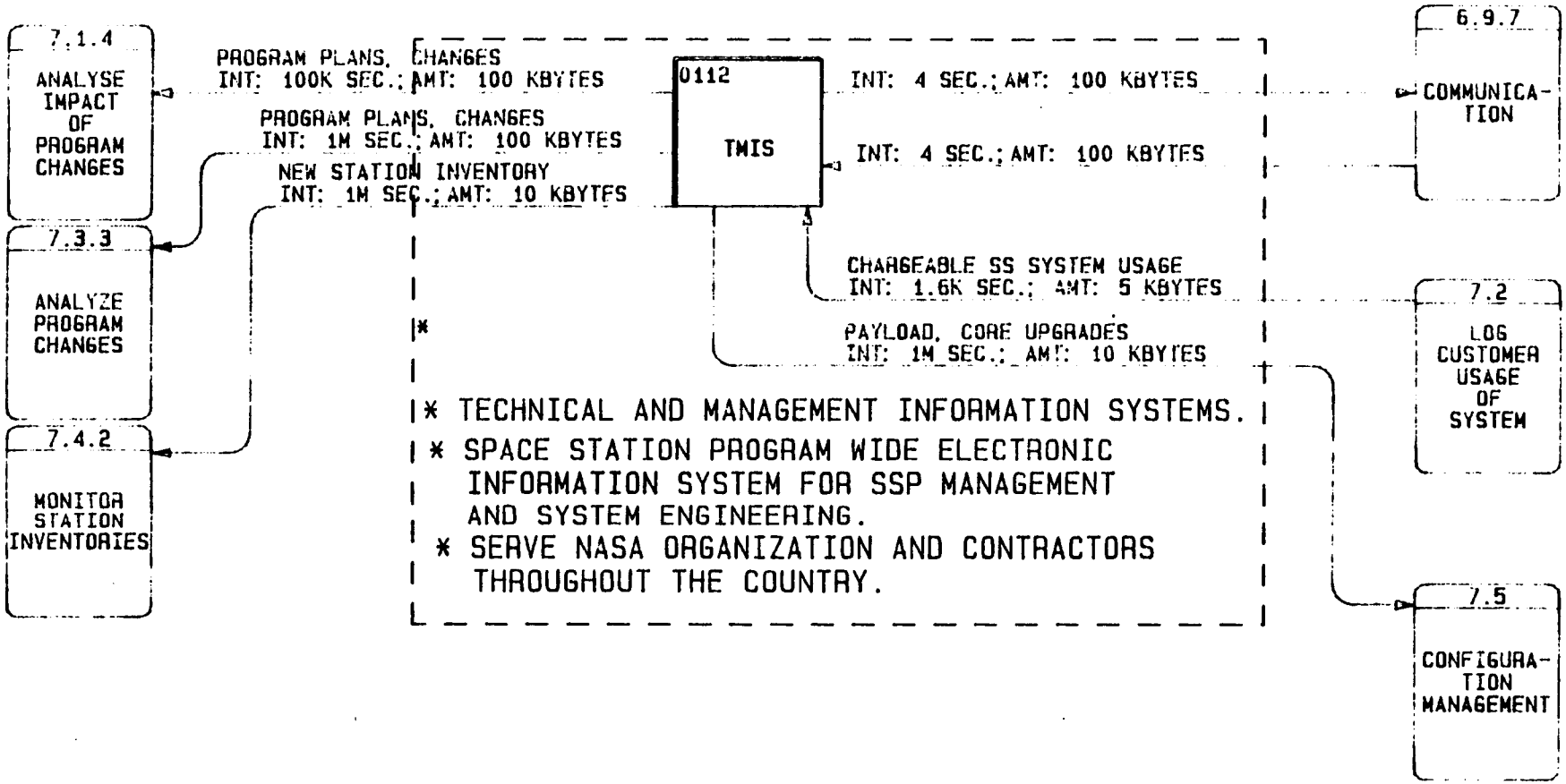

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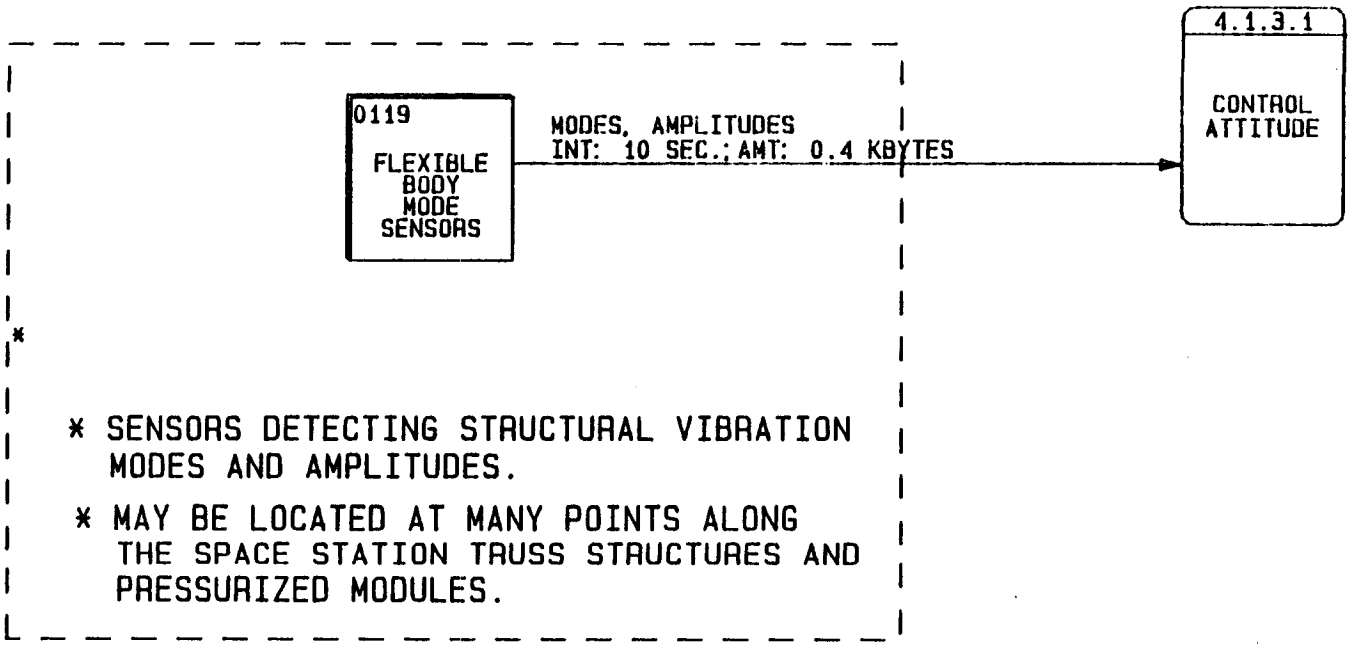
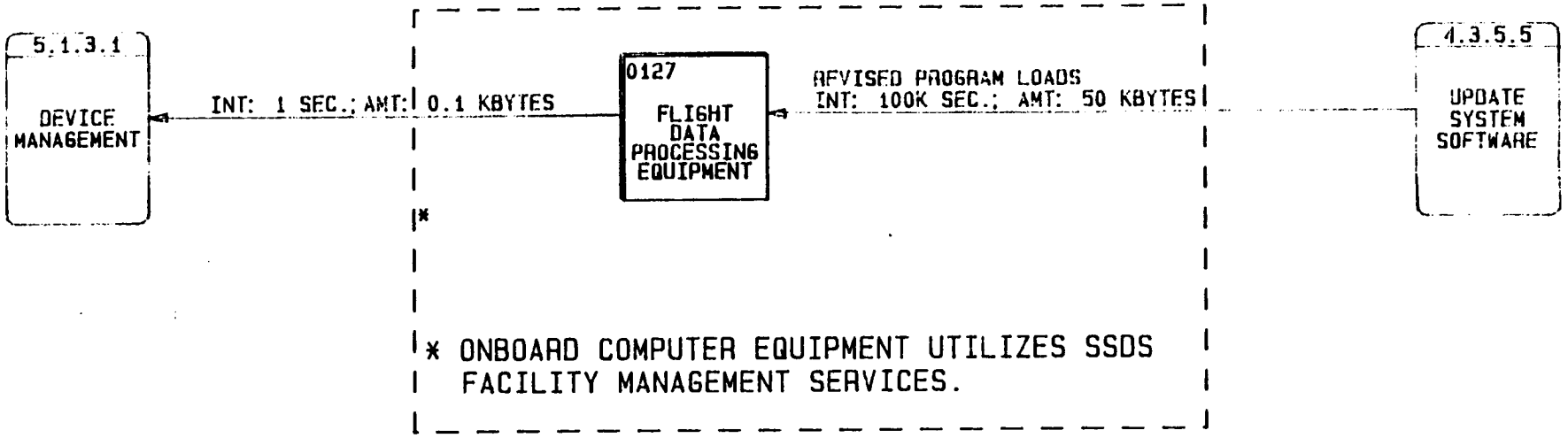
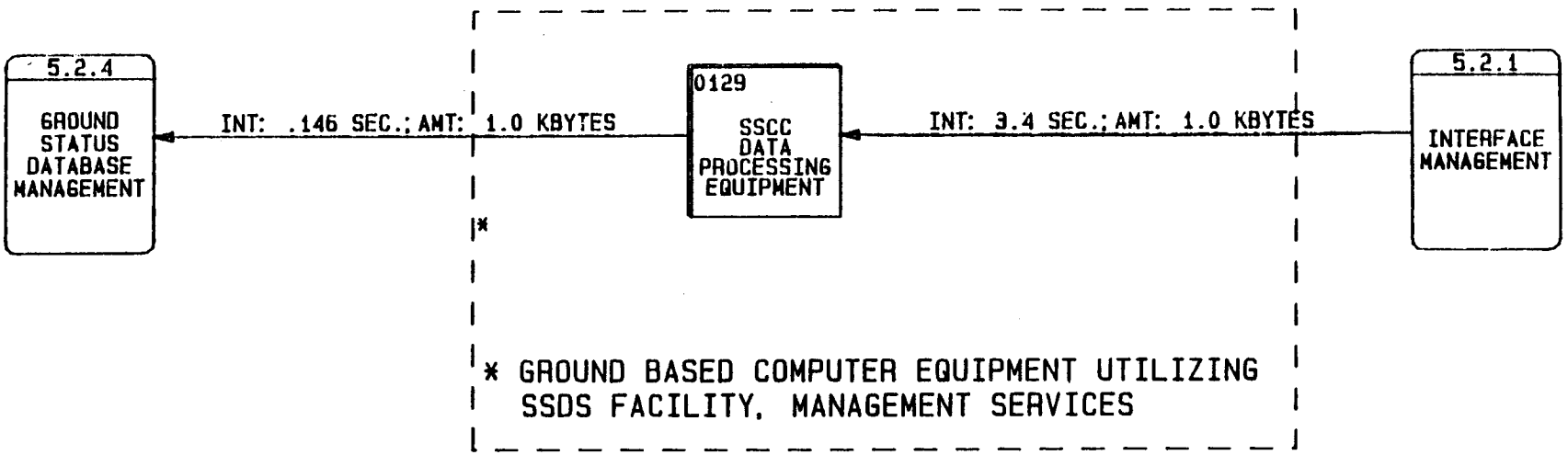


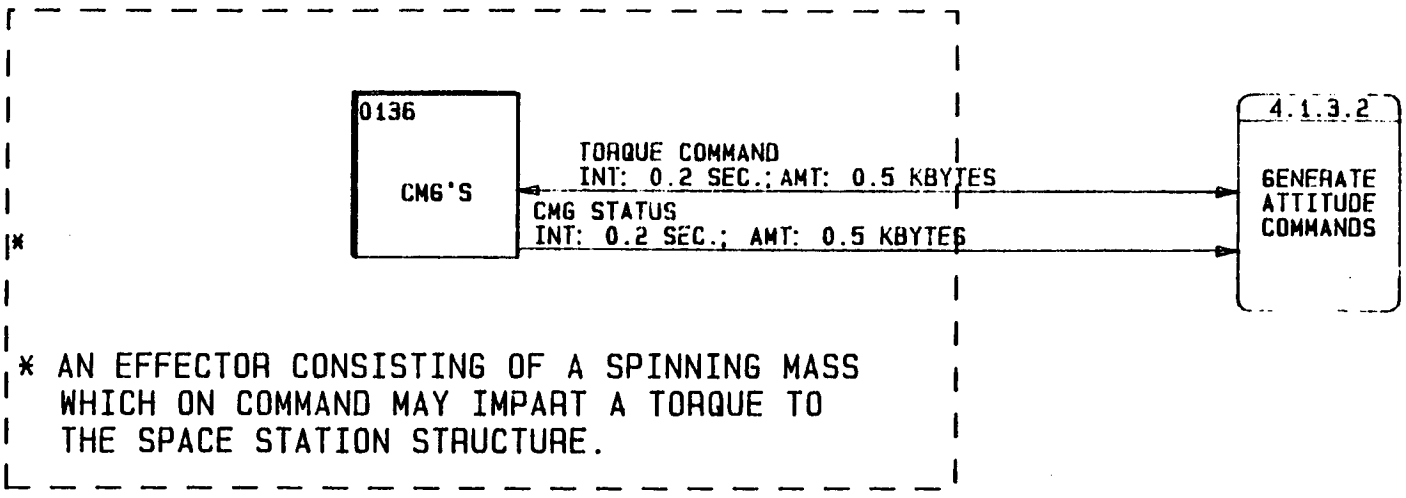
EXTERNAL INTERFACE: FLEXIBLE BODY MODE SENSORS



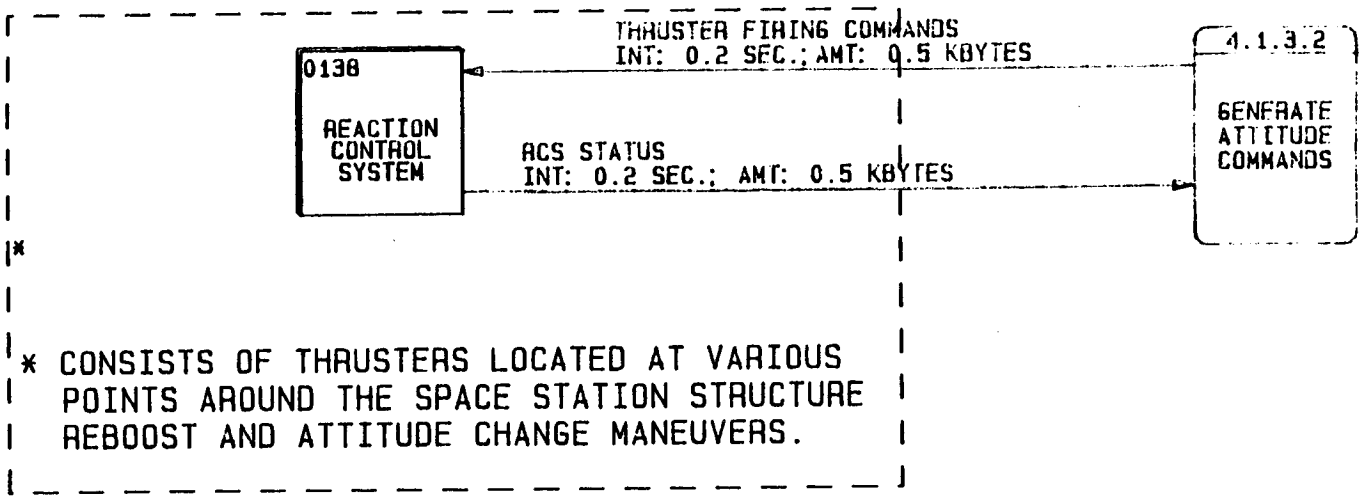
EXTERNAL INTERFACE: FLIGHT DATA PROCESSING EQUIPMENT



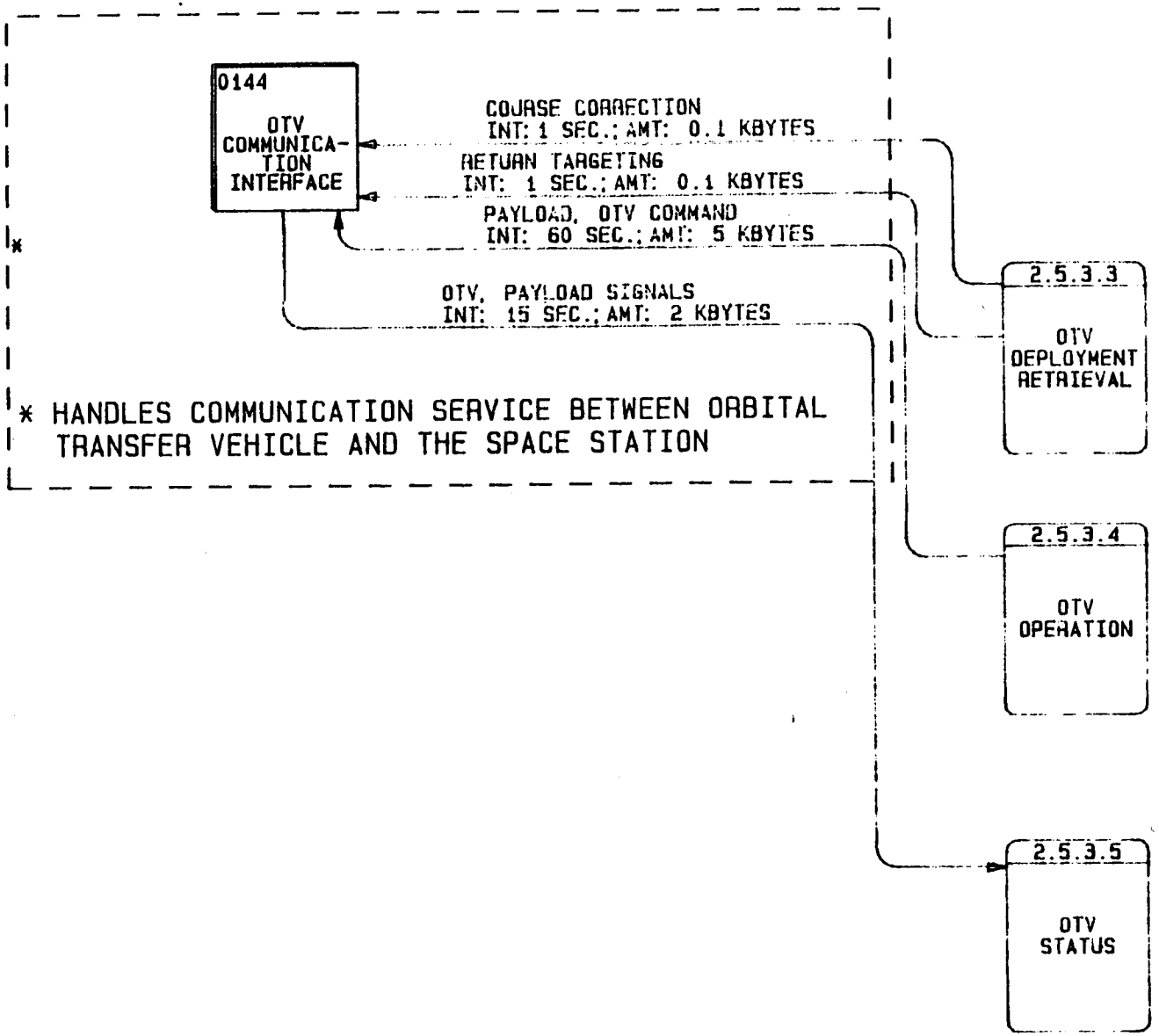
EXTERNAL INTERFACE: GROUND DATA PROCESSING EQUIPMENT



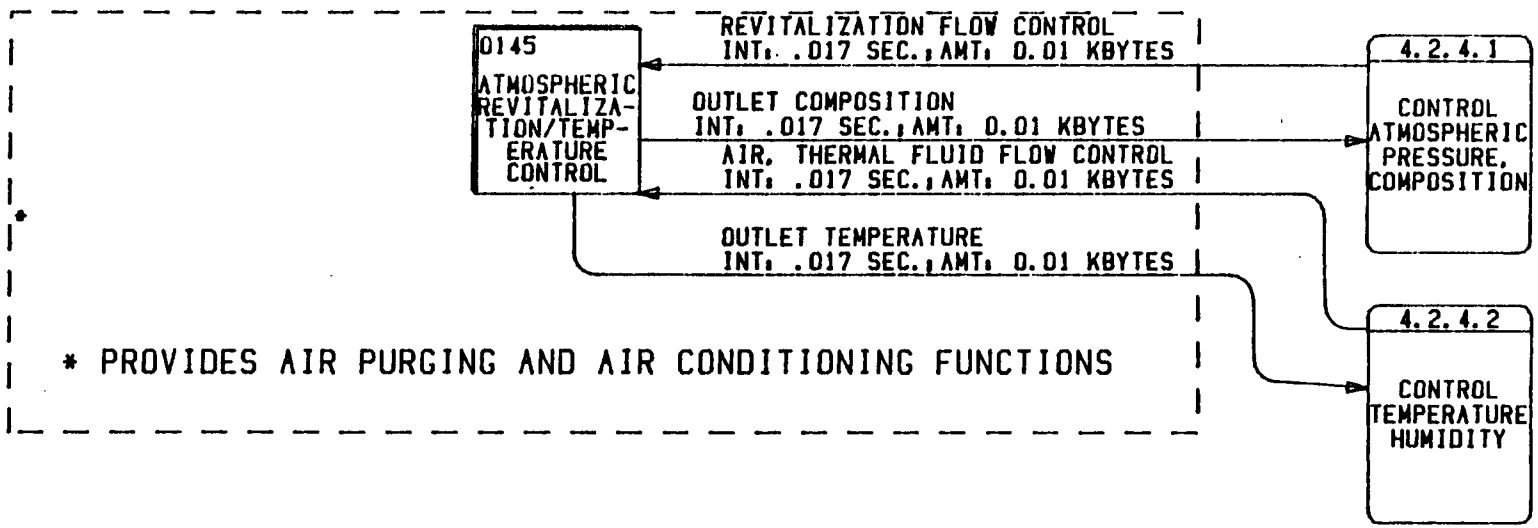
EXTERNAL INTERFACE: CONTROL MOMENT GYROS (CMG'S)



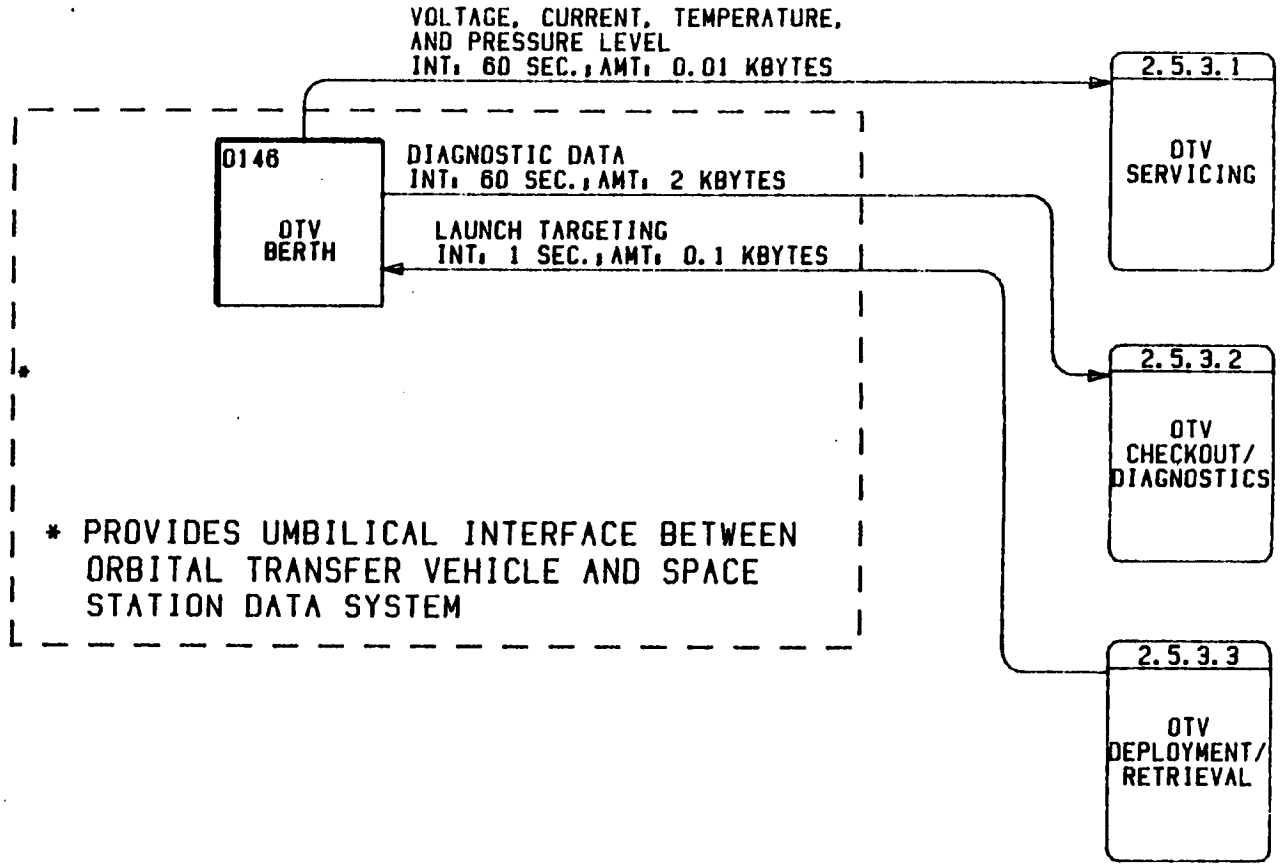
EXTERNAL INTERFACE: REACTION CONTROL SYSTEM



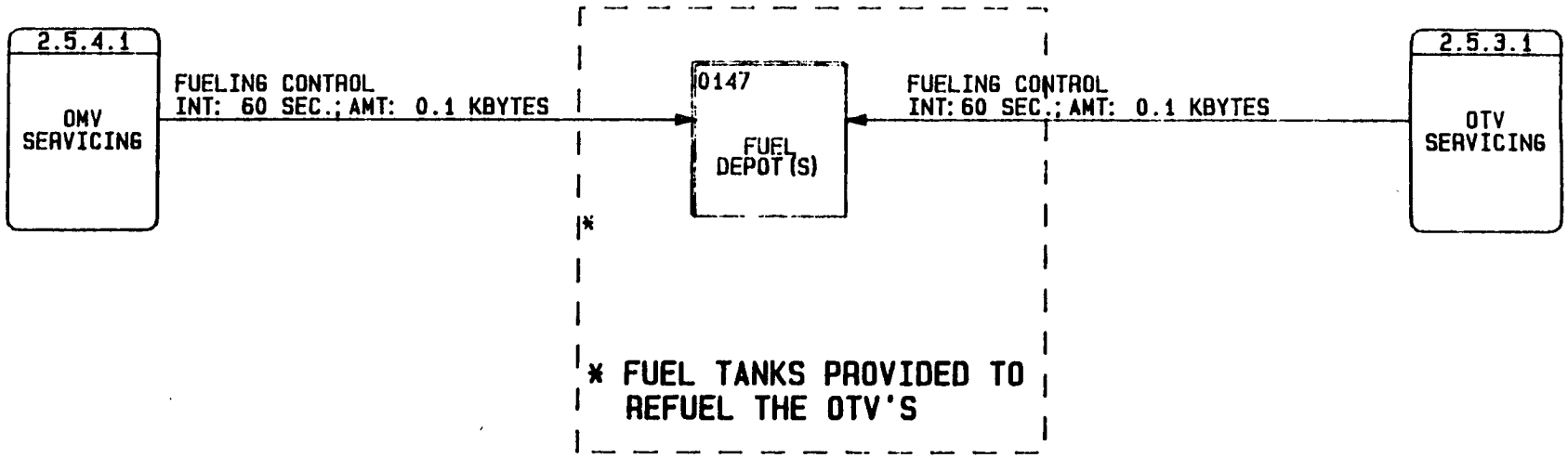
EXTERNAL INTERFACE: OTV COMMUNICATION INTERFACE



EXTERNAL INTERFACE: ATMOSPHERIC REVITALIZATION/TEMPERATURE CONTROL



EXTERNAL INTERFACE: OTV BERTH



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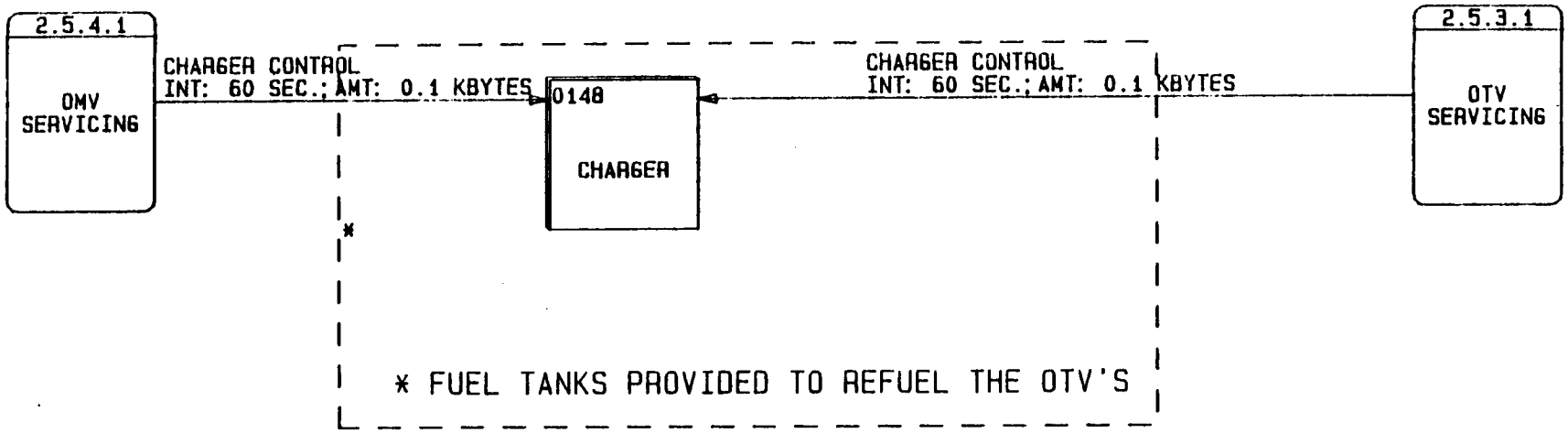
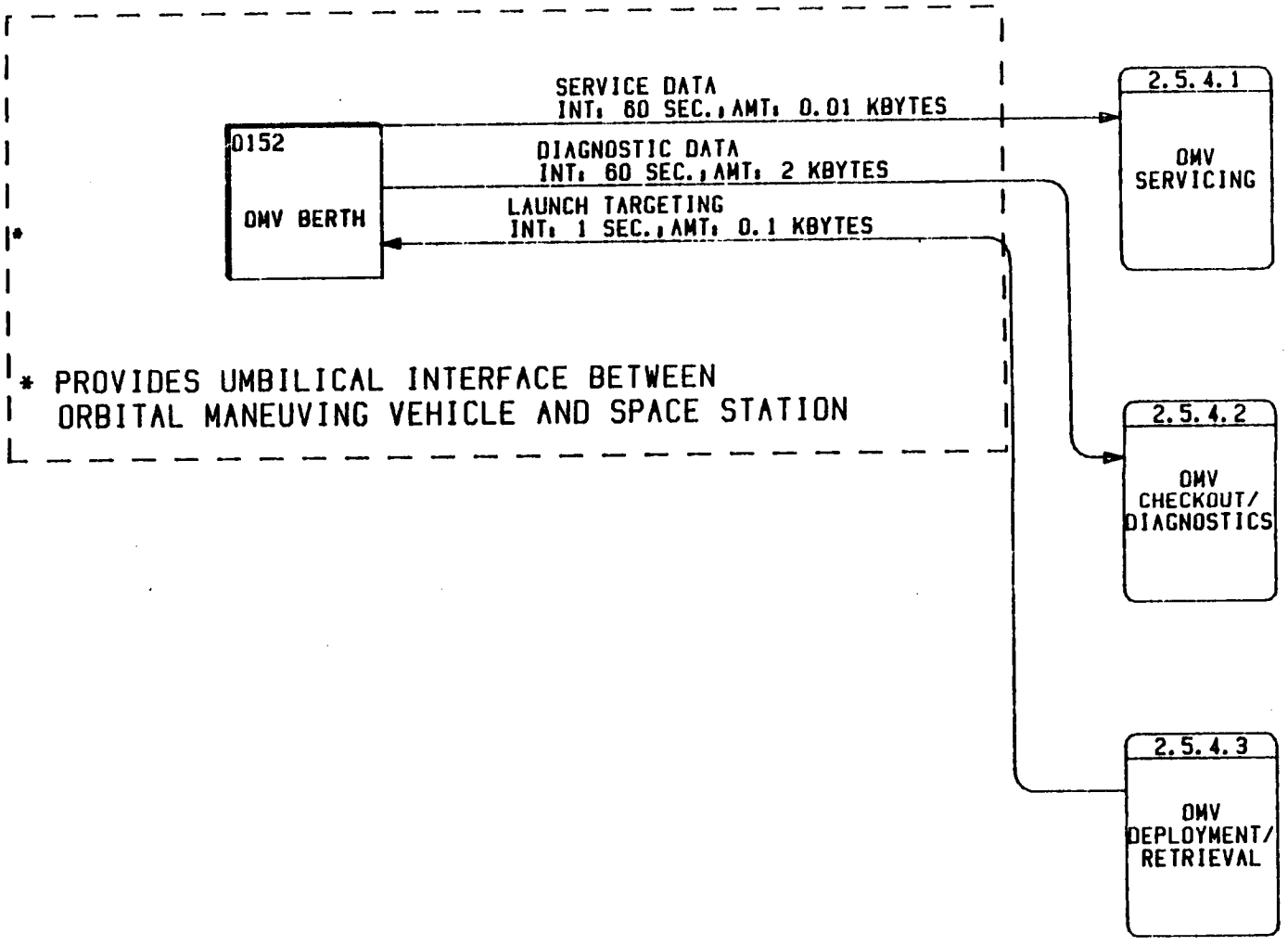
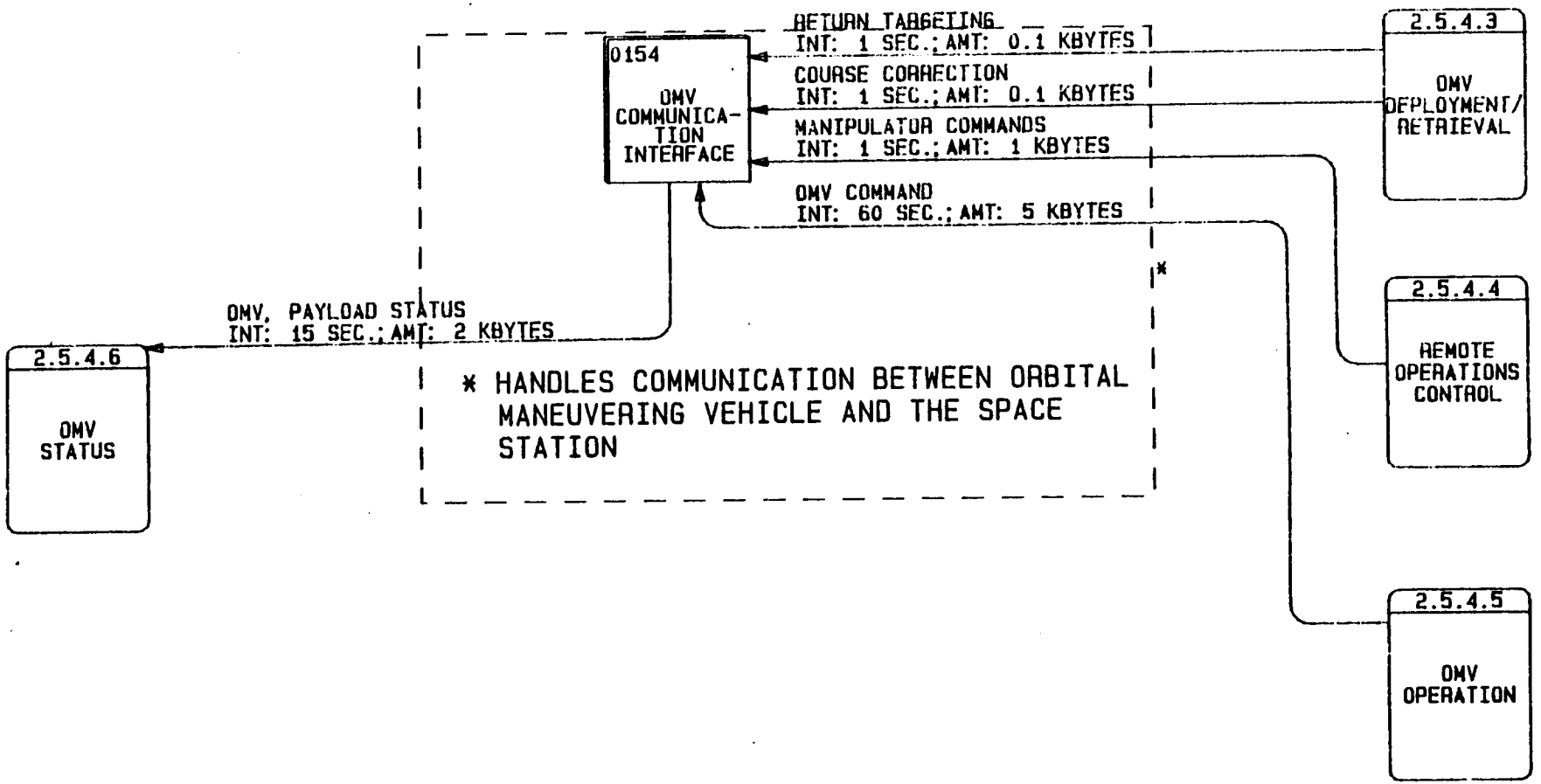


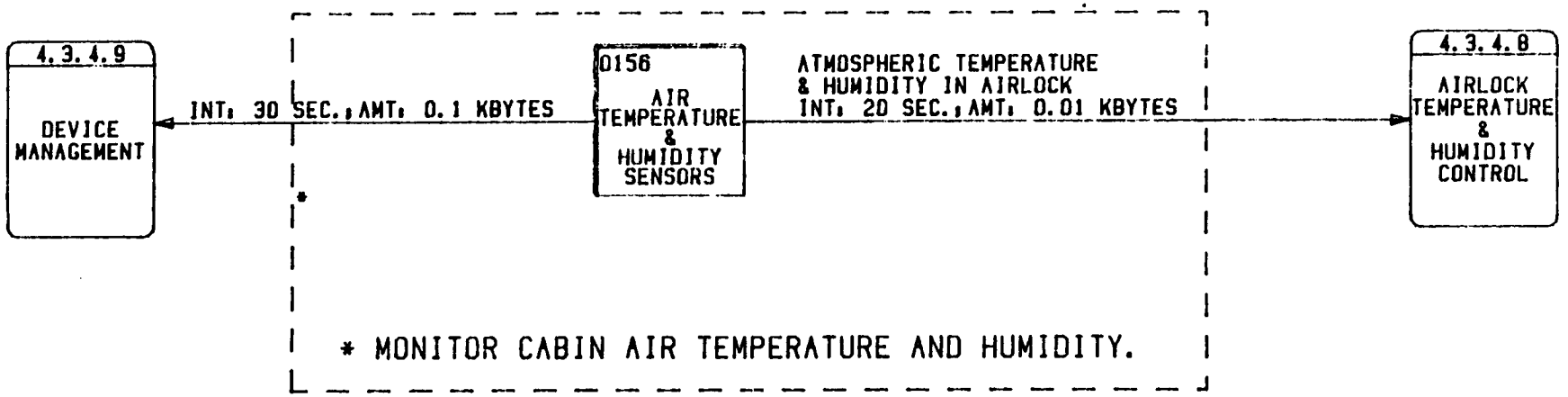
EXTERNAL INTERFACE: CHARGER



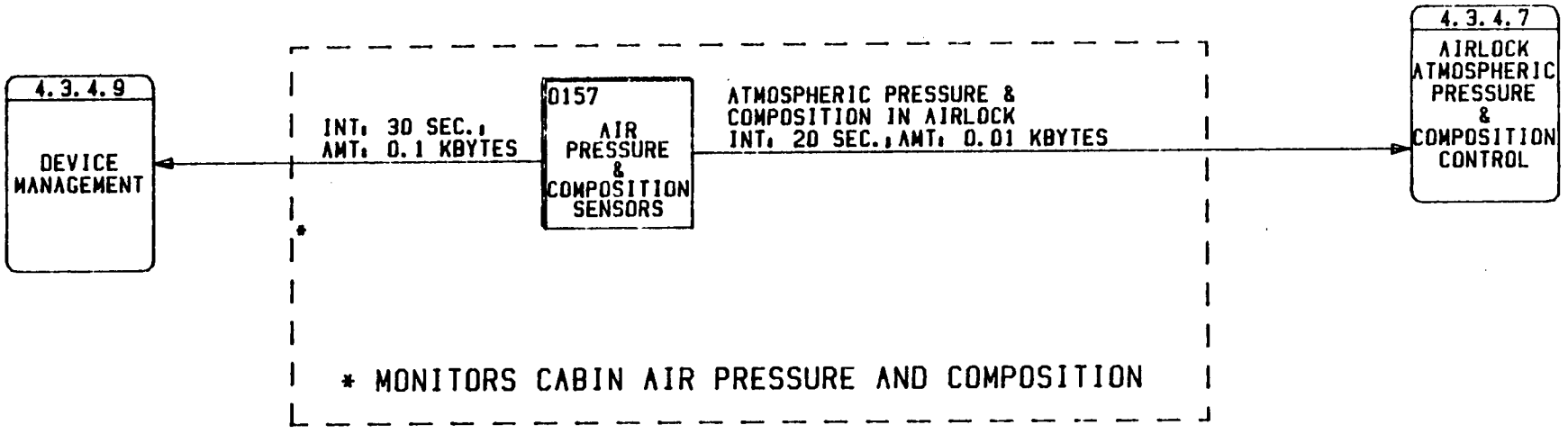
EXTERNAL INTERFACE: OMV BERTH



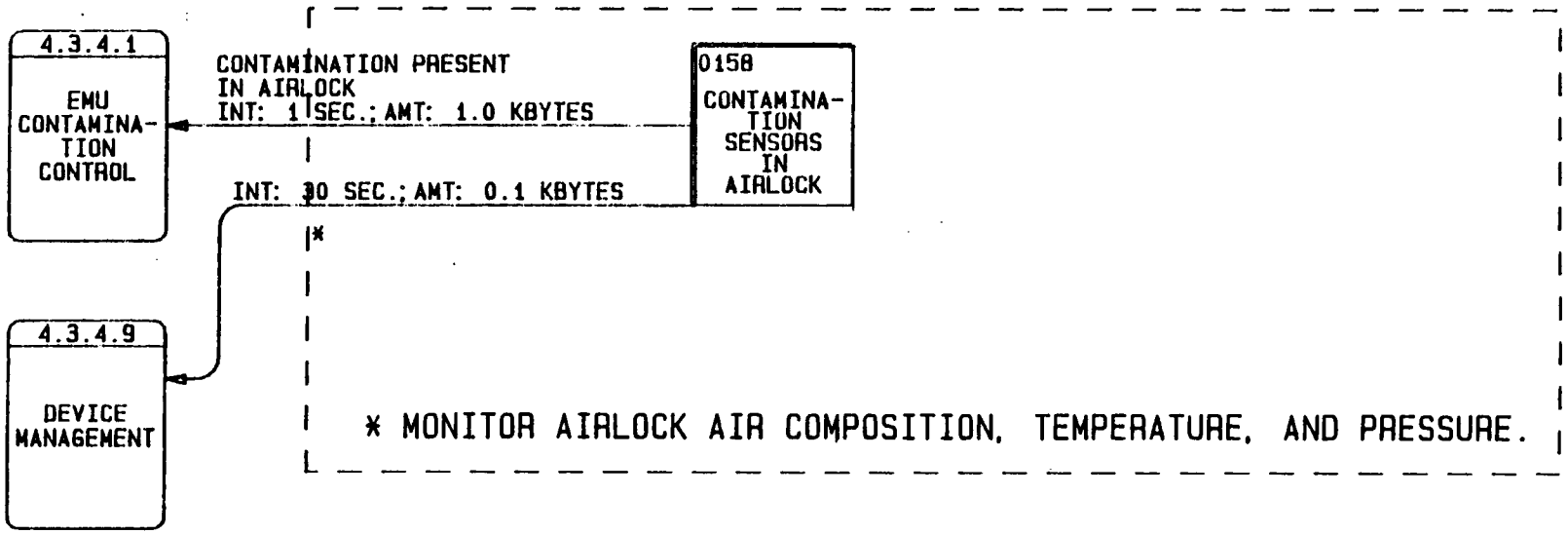
EXTERNAL INTERFACE: OMV COMMUNICATION INTERFACE



EXTERNAL INTERFACE: AIR TEMPERATURE & HUMIDITY SENSORS



EXTERNAL INTERFACE: AIR PRESSURE AND COMPOSITION SENSORS



EXTERNAL INTERFACE: CONTAMINATION SENSORS IN AIRLOCK

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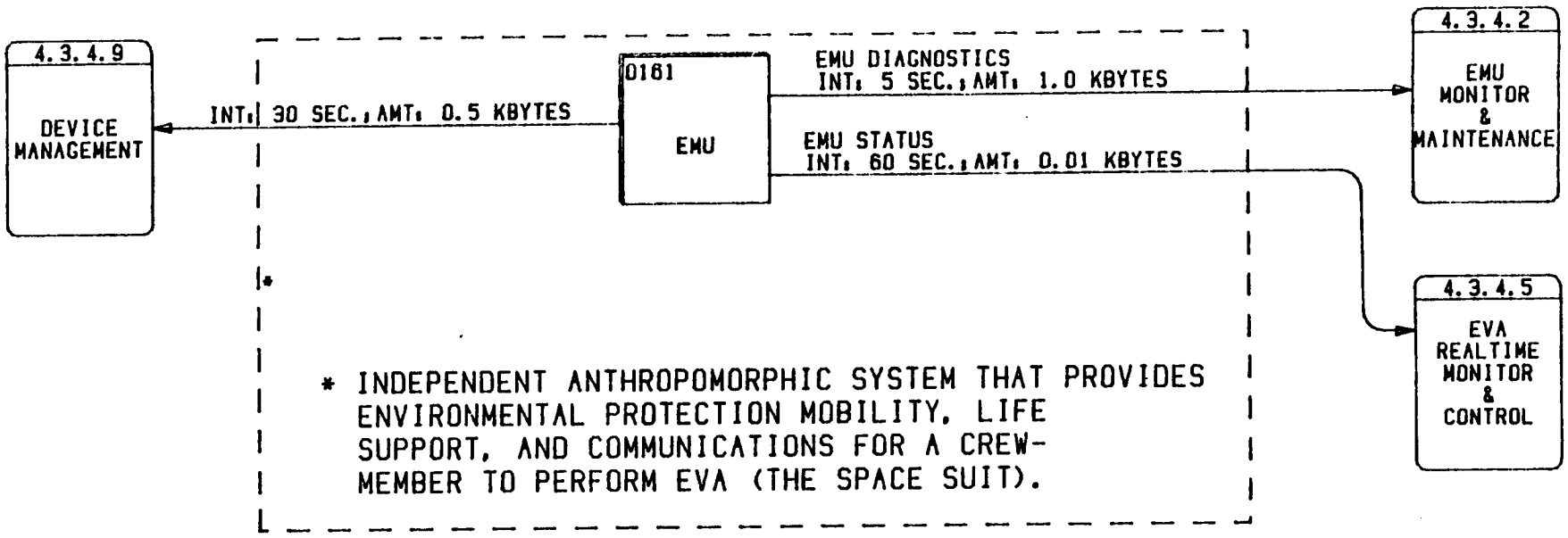
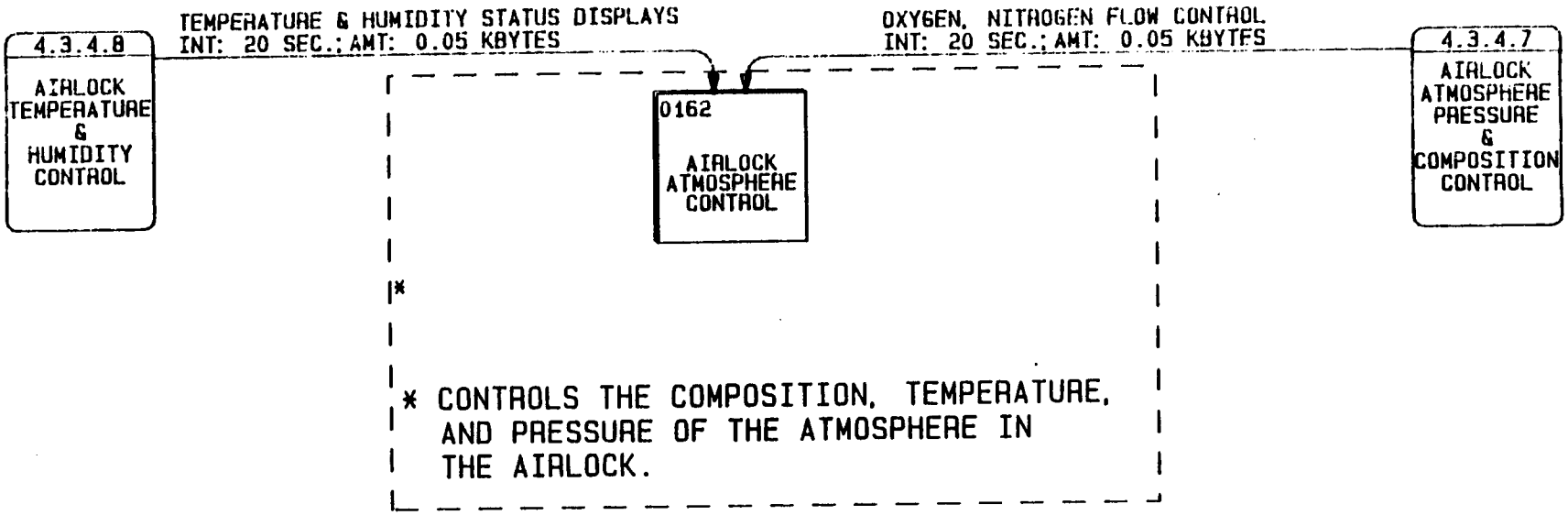
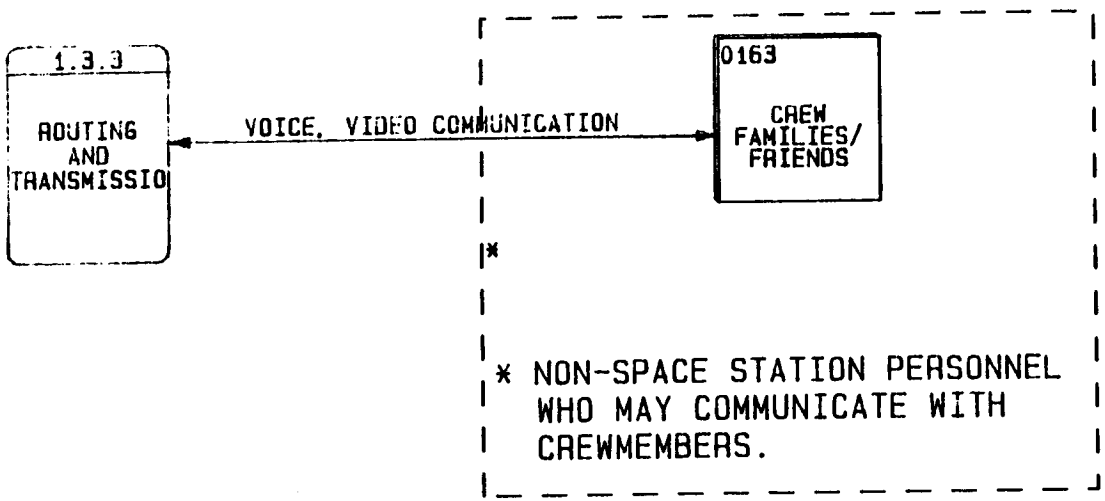
C-53,54



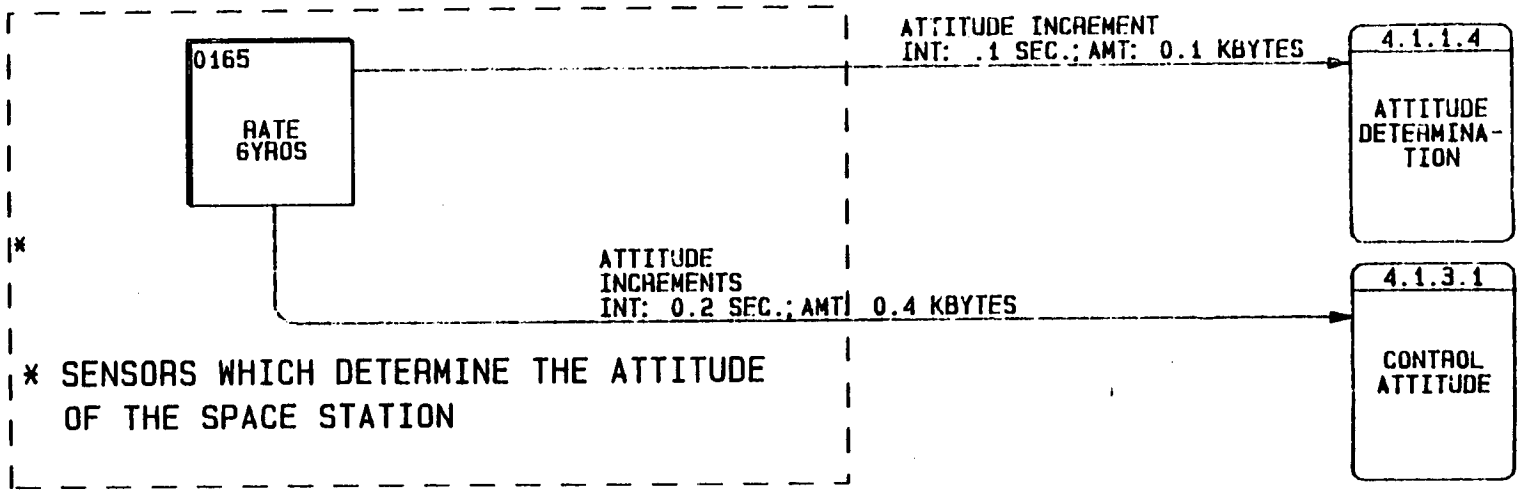
EXTERNAL INTERFACE: EMU



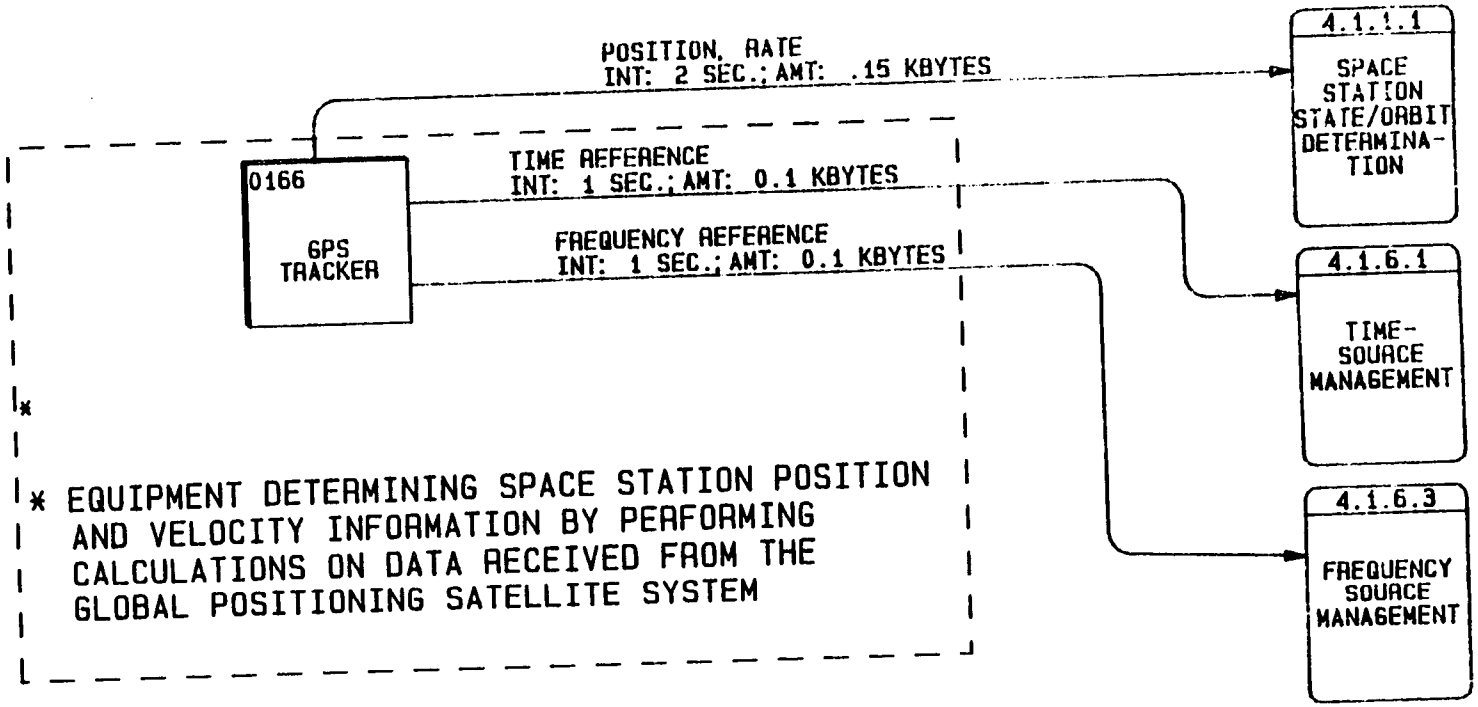
EXTERNAL INTERFACE: AIRLOCK ATMOSPHERE CONTROL



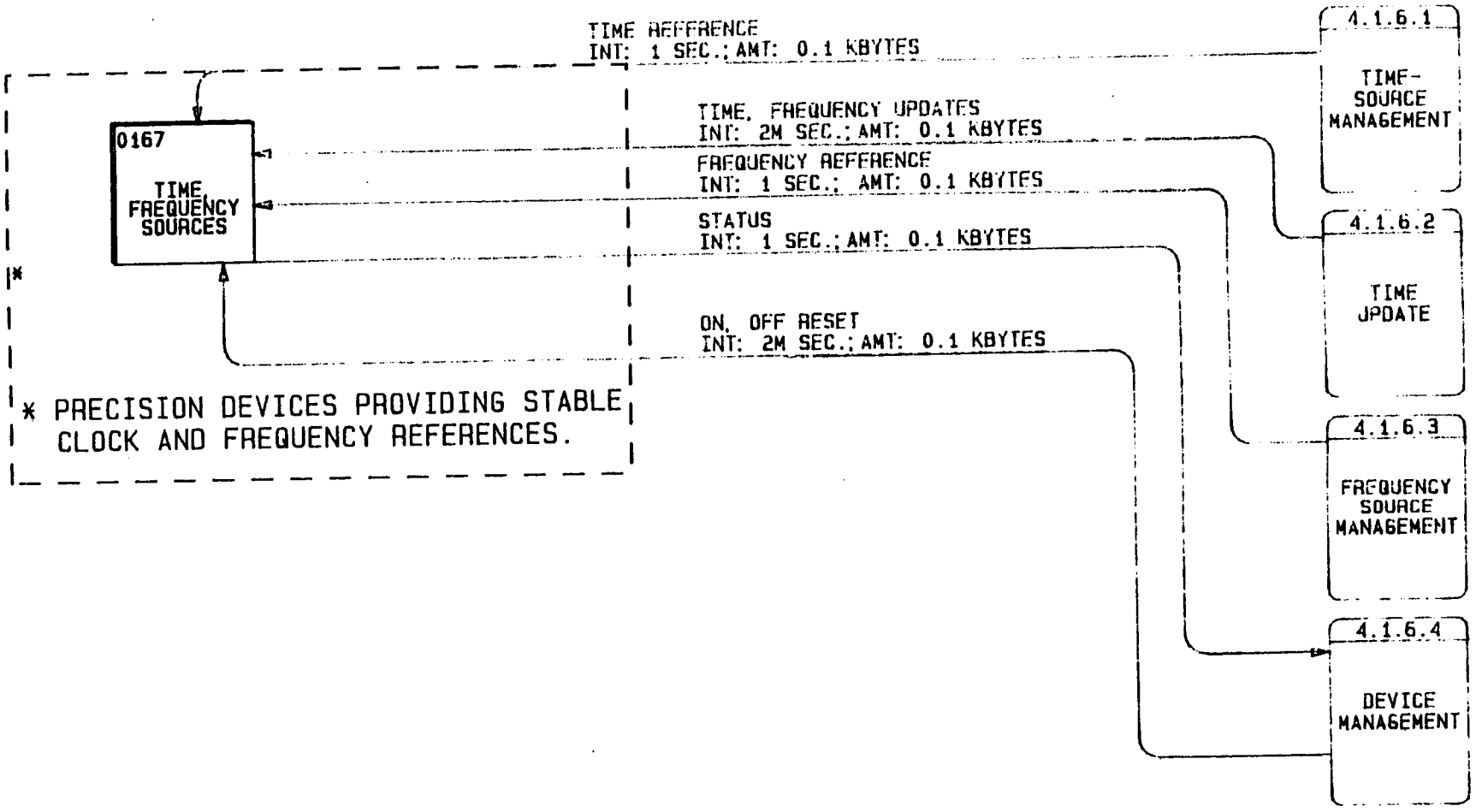
EXTERNAL INTERFACE: CREW FAMILIES/FRIENDS



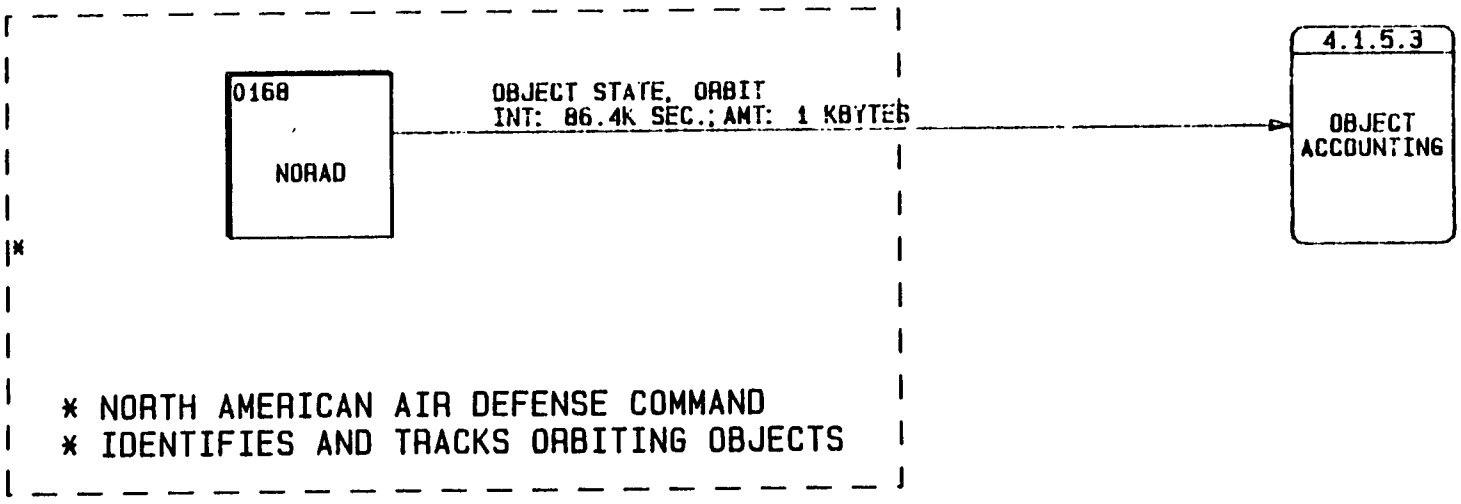
EXTERNAL INTERFACE: RATE GYROS



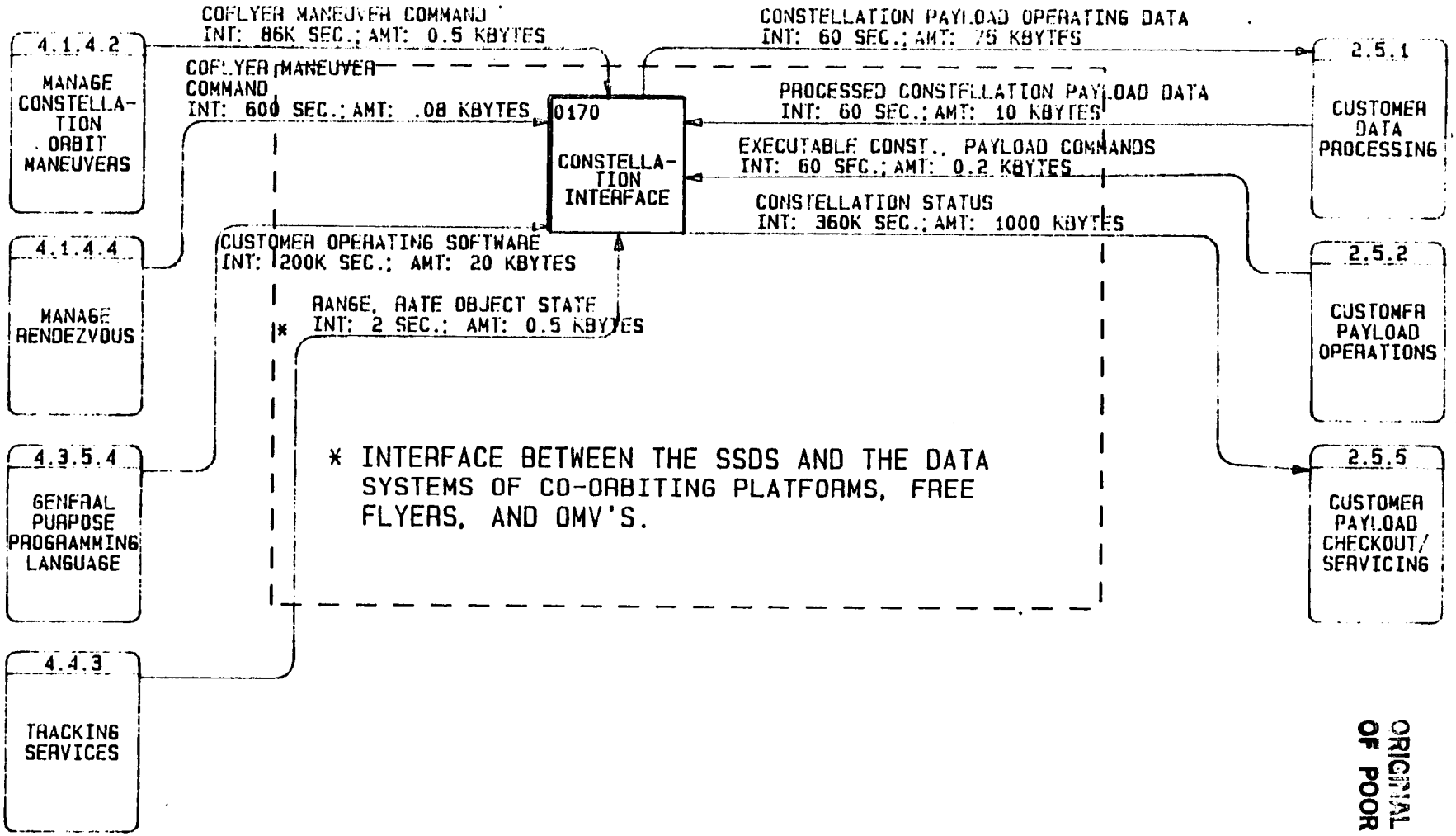
EXTERNAL INTERFACE: GPS TRACKER



EXTERNAL INTERFACE: TIME, FREQUENCY SOURCES



EXTERNAL INTERFACE: NORAD



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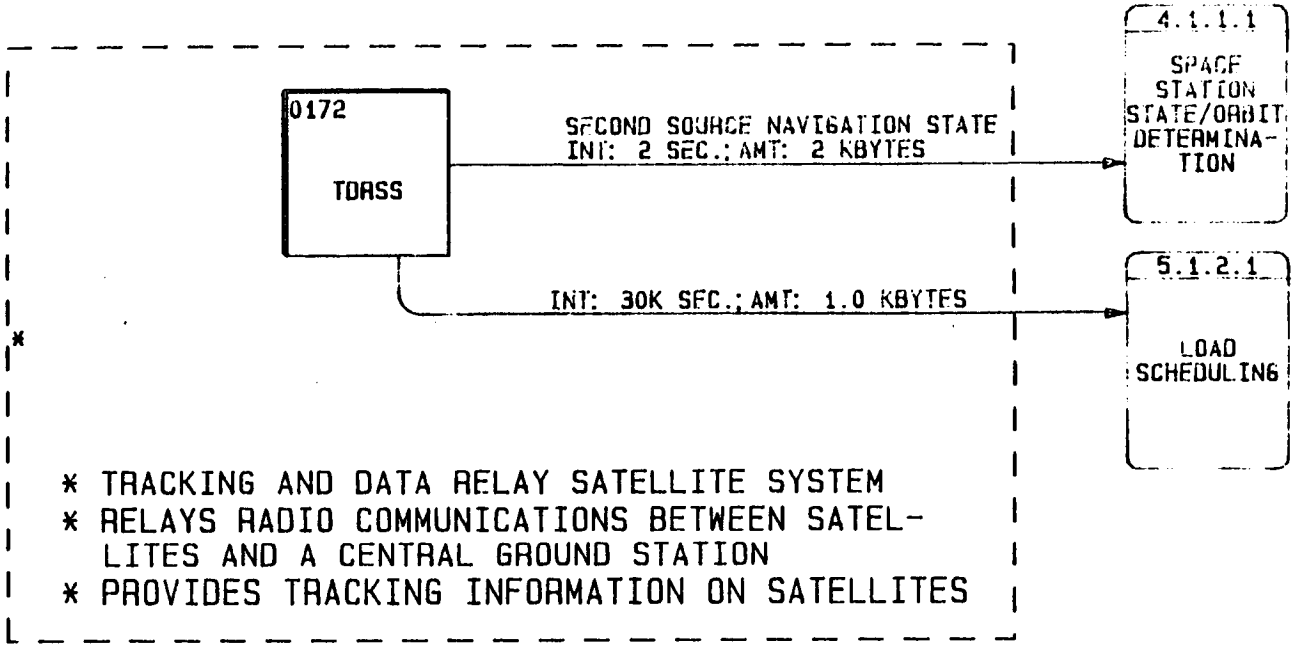
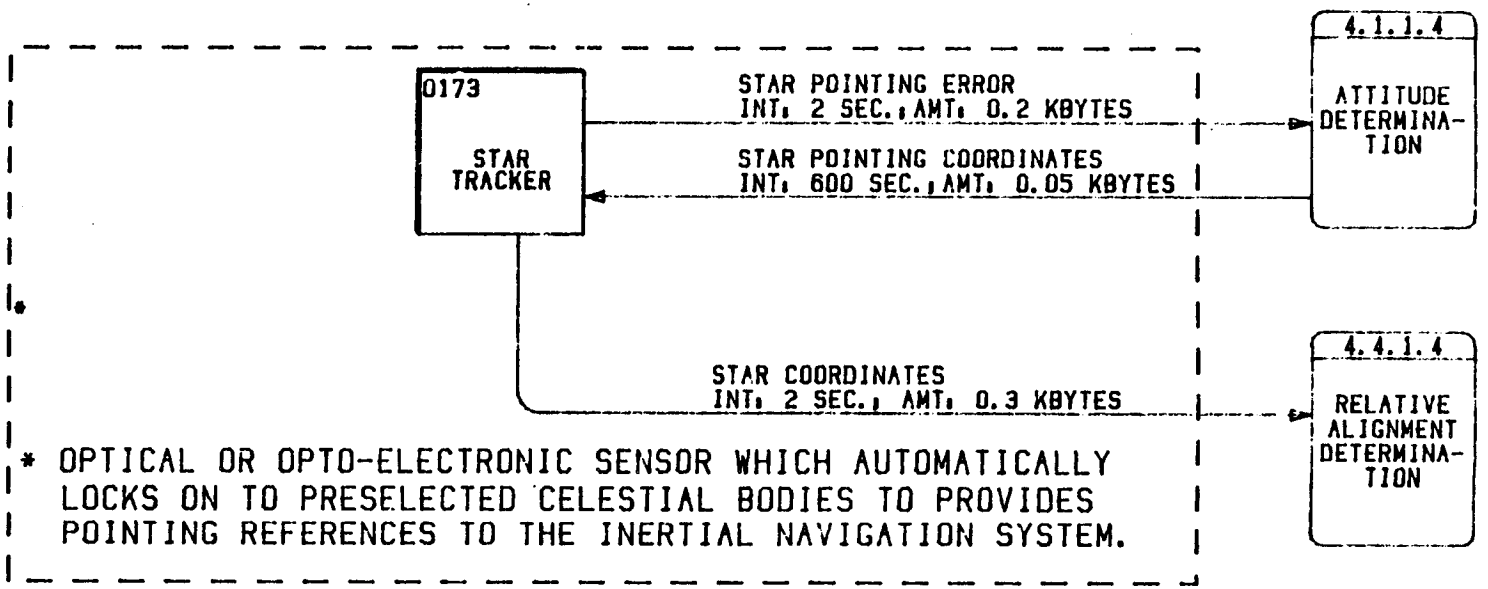
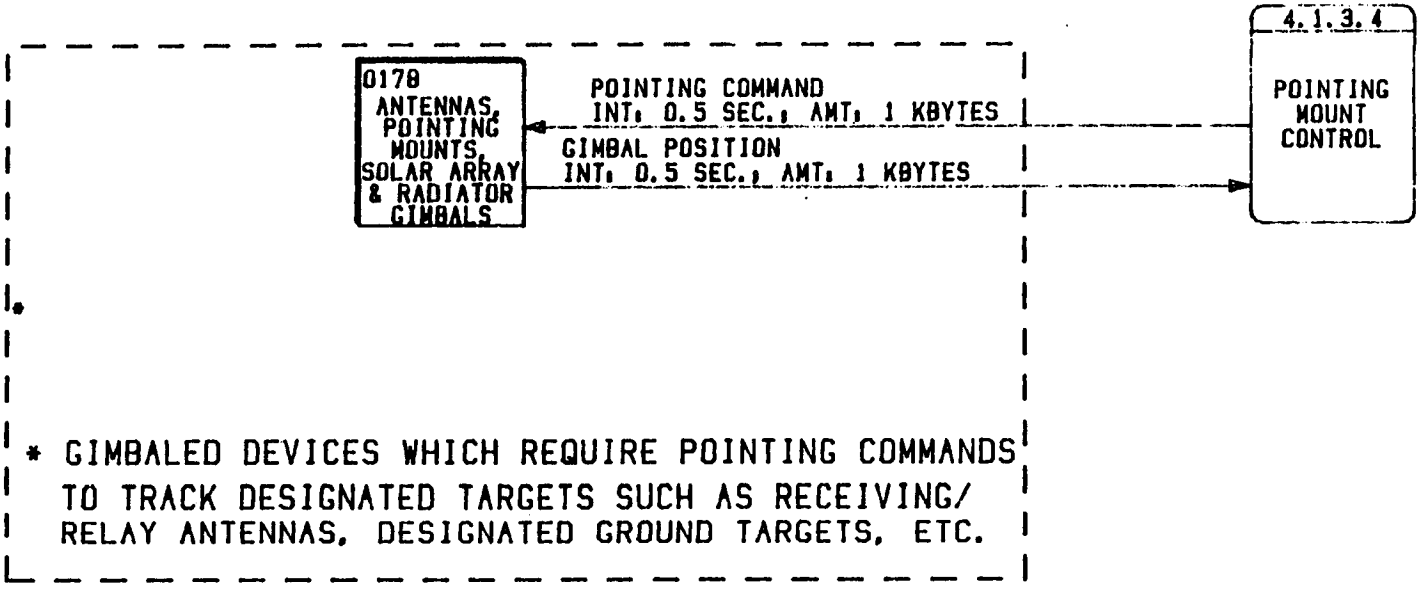
EXTERNAL INTERFACE: CONSTELLATION INTERFACE



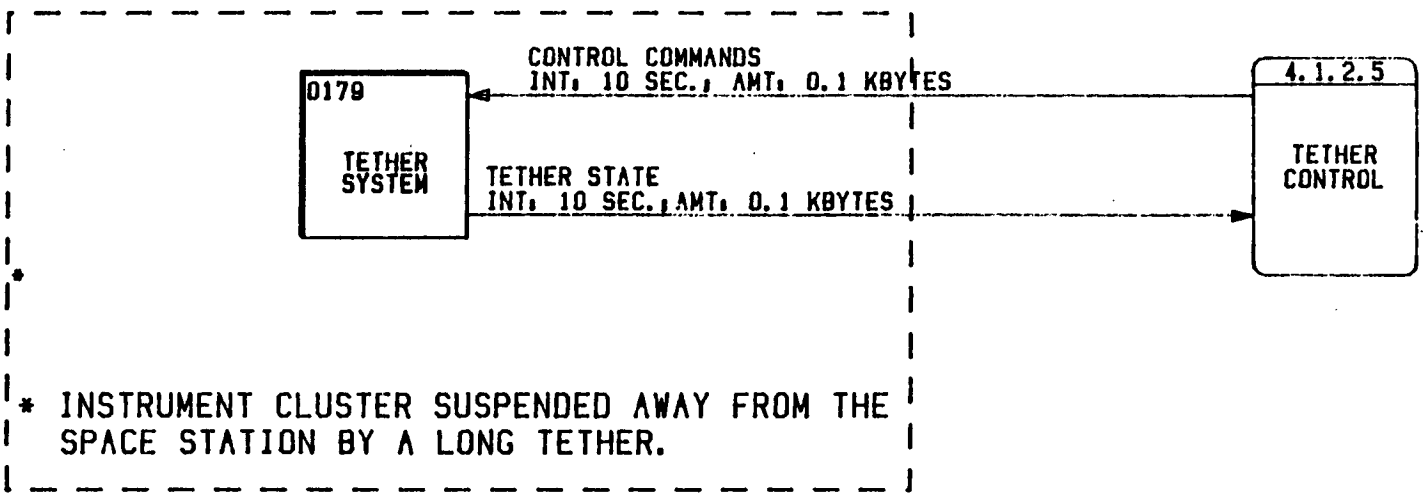
EXTERNAL INTERFACE: TDRSS



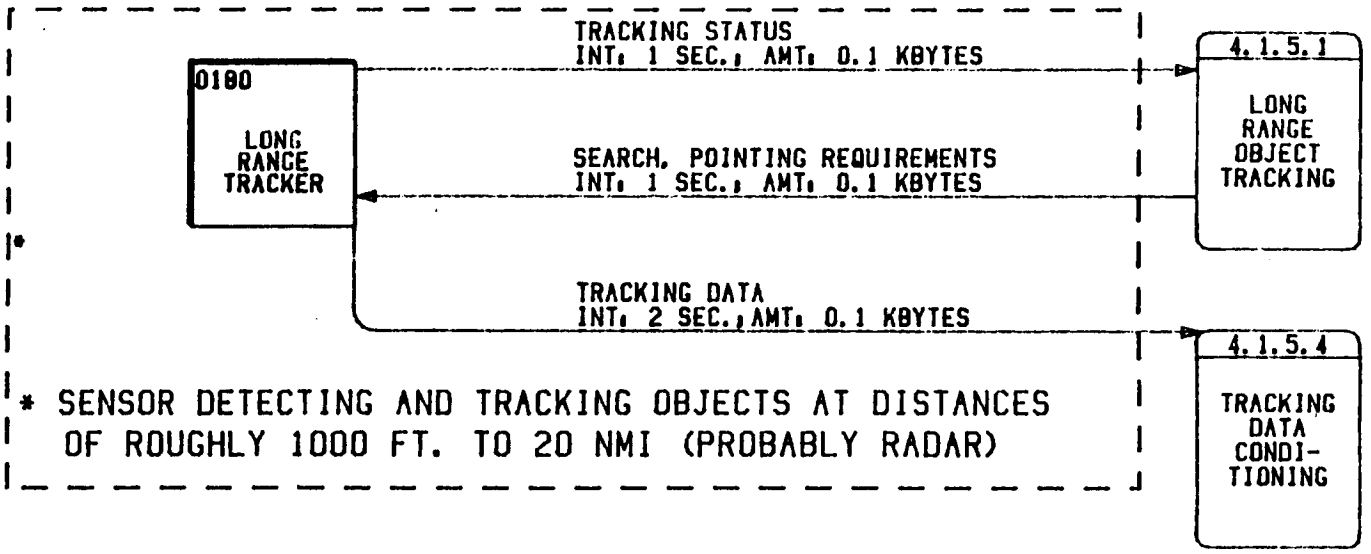
EXTERNAL INTERFACE: STAR TRACKER



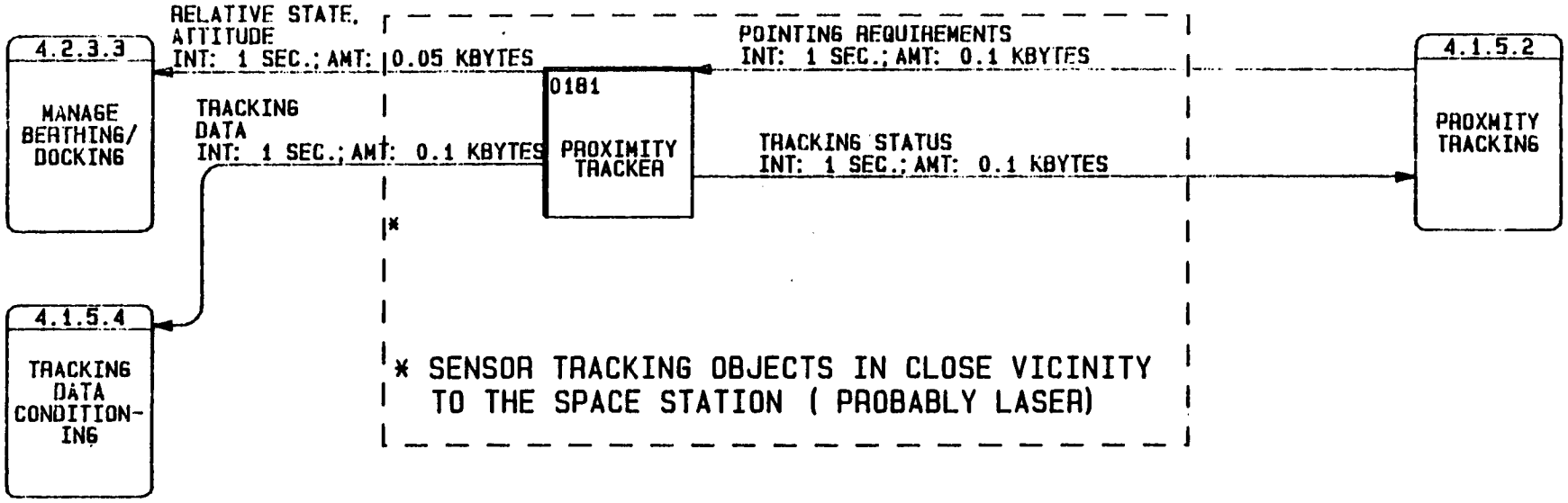
EXTERNAL INTERFACE: ANTENNAS, POINTING MOUNTS, SOLAR ARRAY AND RADIATOR GIMBALS



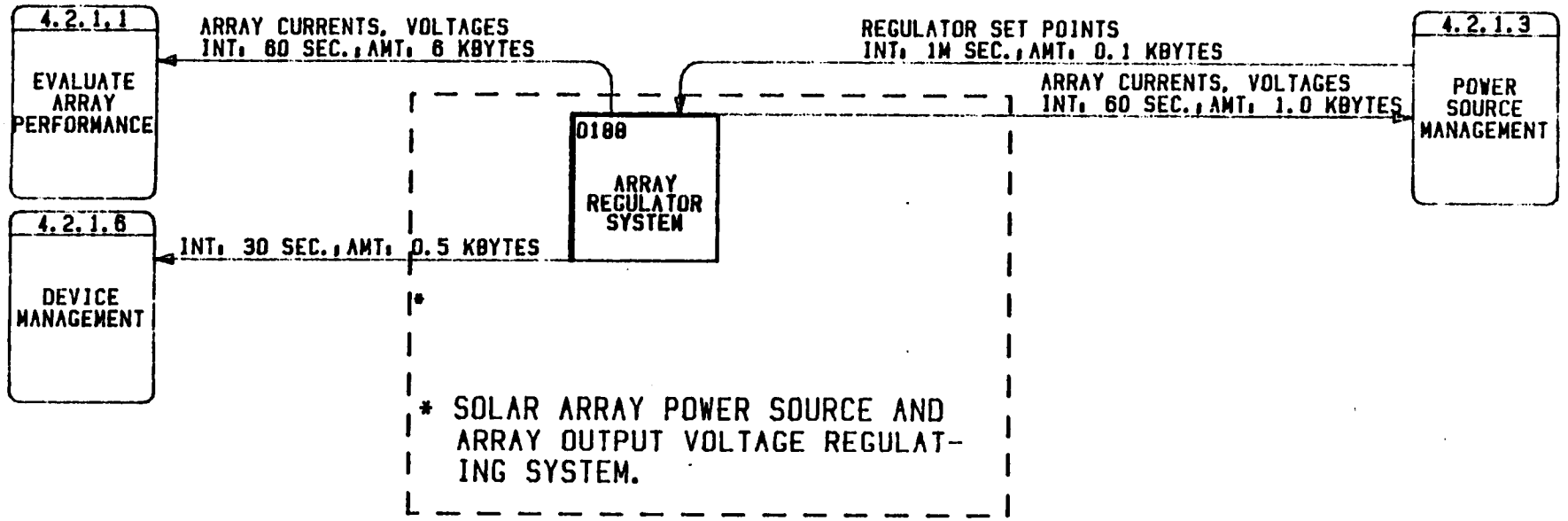
EXTERNAL INTERFACE: TETHER SYSTEM



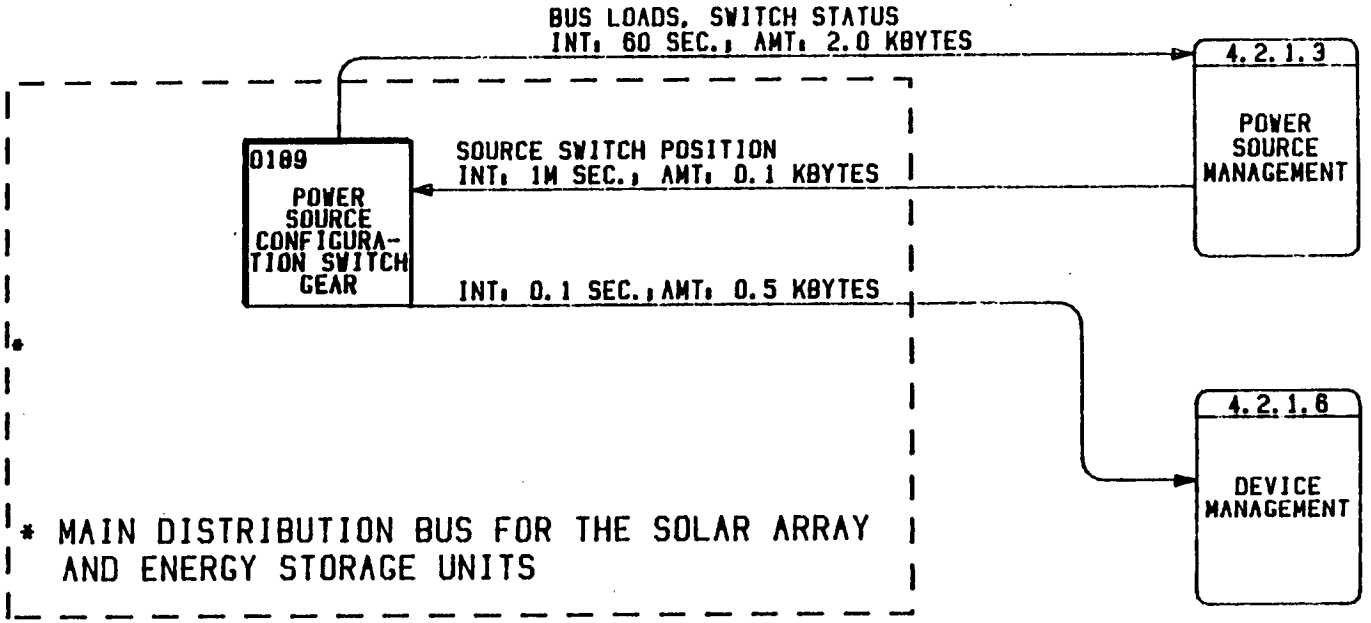
EXTERNAL INTERFACE: LONG RANGE TRACKER



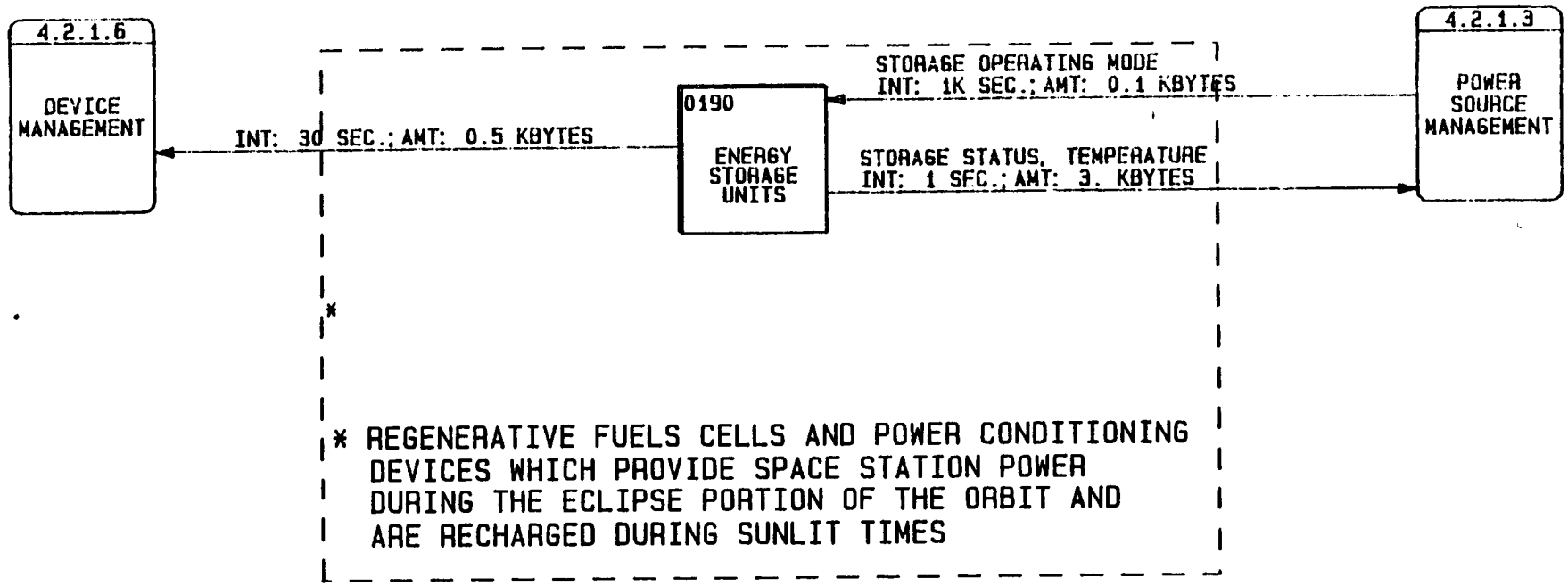
EXTERNAL INTERFACE: PROXIMITY TRACKER



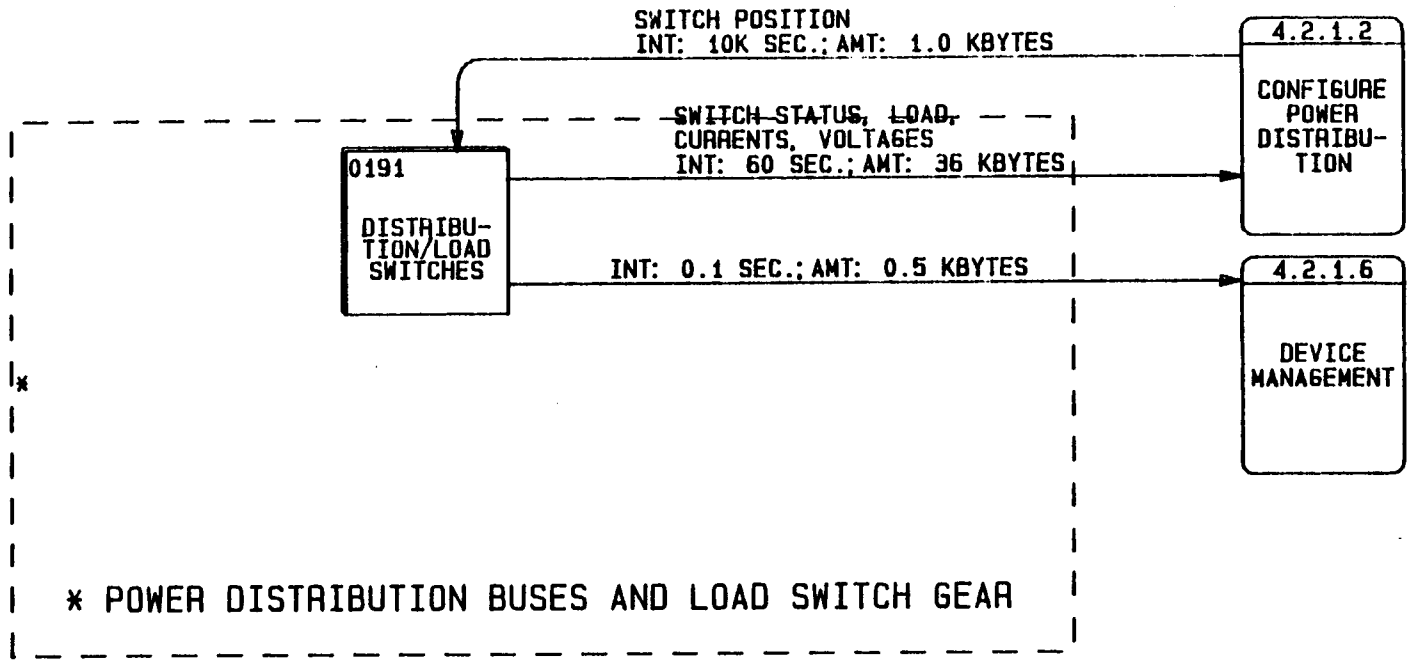
EXTERNAL INTERFACE: ARRAY REGULATOR SYSTEM



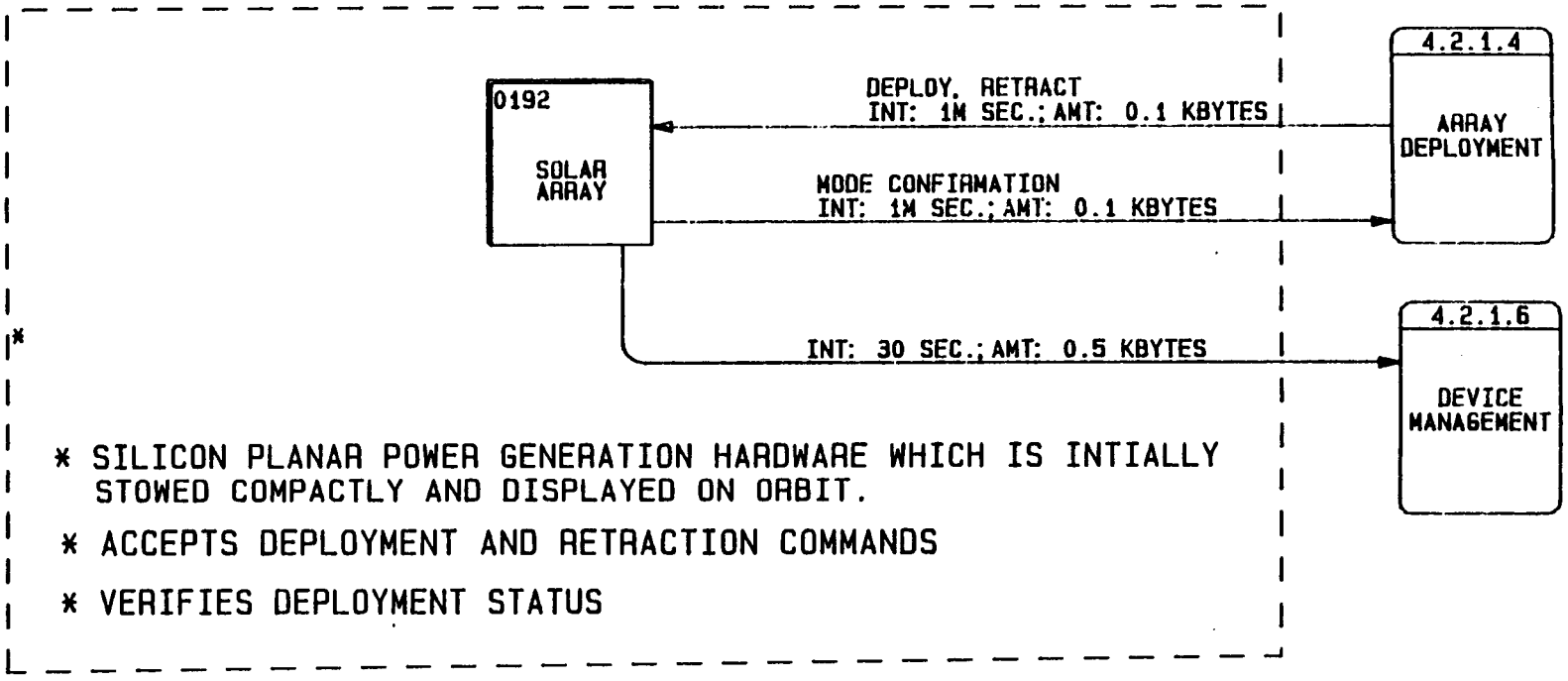
EXTERNAL INTERFACE: POWER SOURCE CONFIGURATION SWITCH GEAR



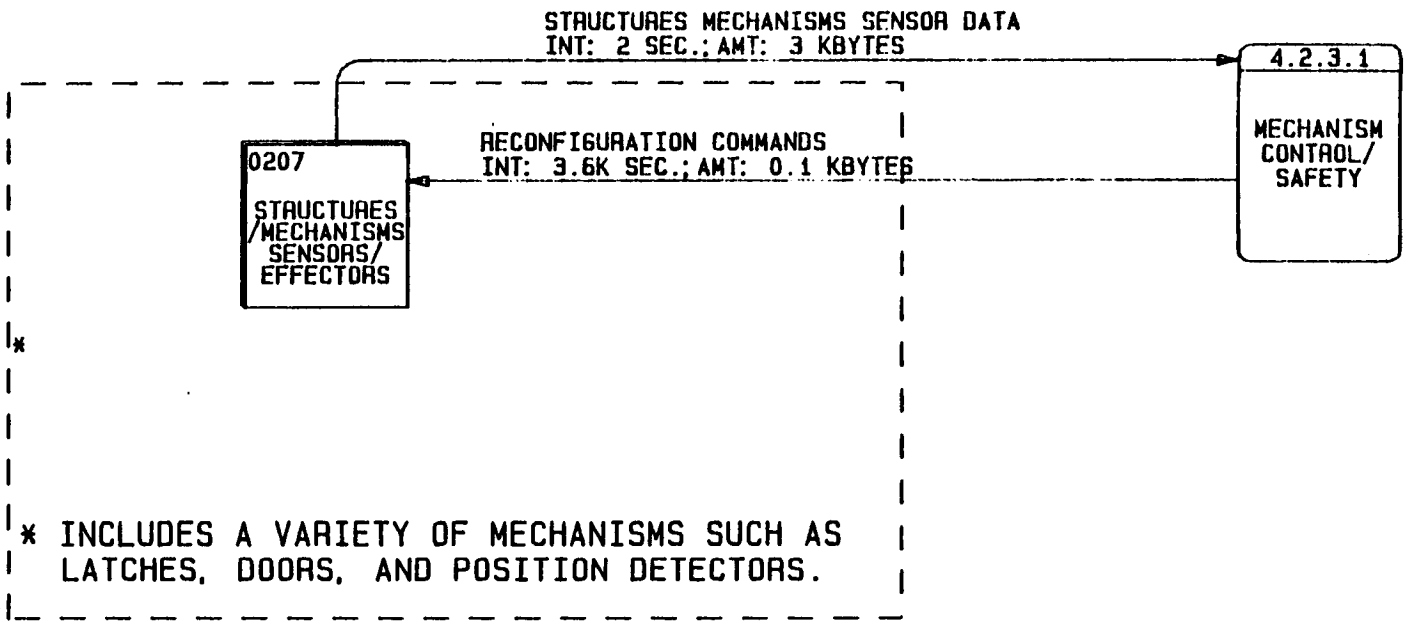
EXTERNAL INTERFACE: ENERGY STORAGE UNITS



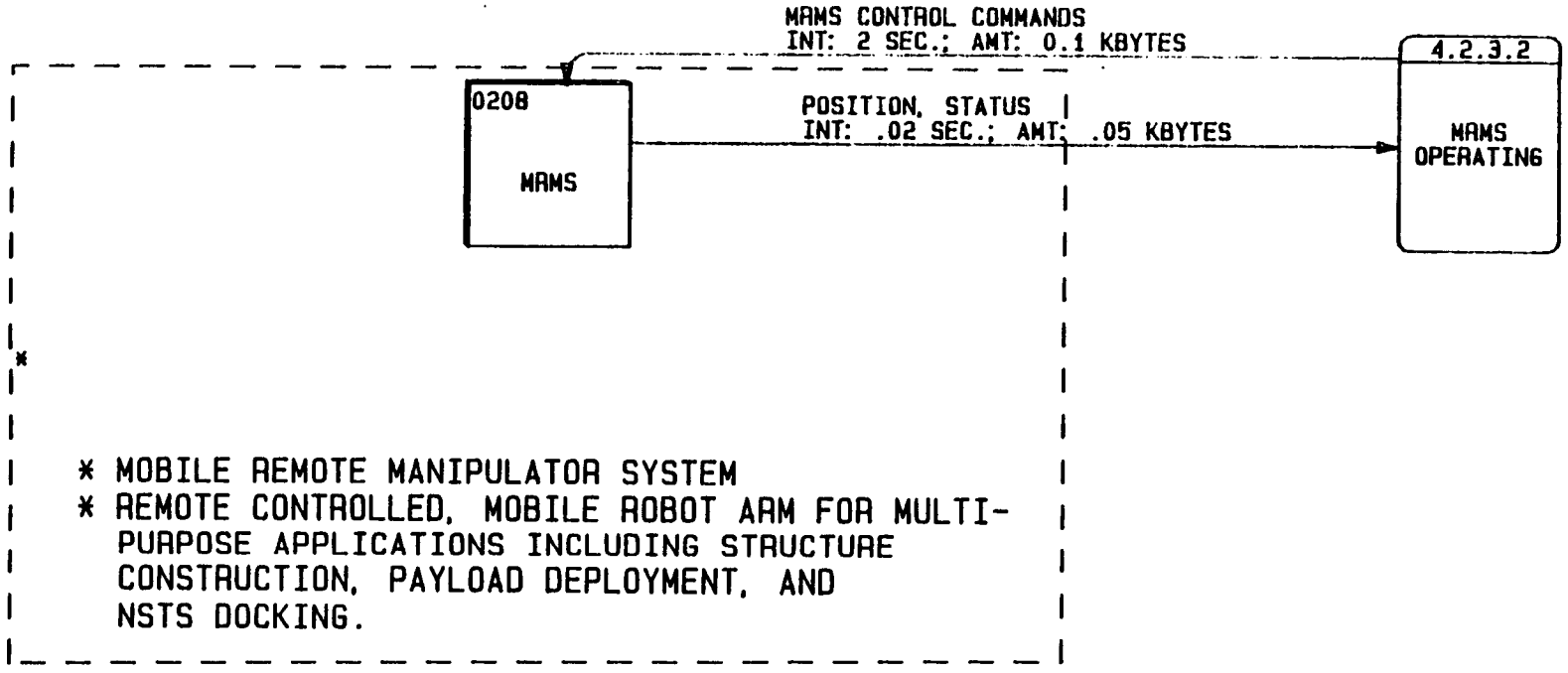
EXTERNAL INTERFACE: DISTRIBUTION/LOAD SWITCHES



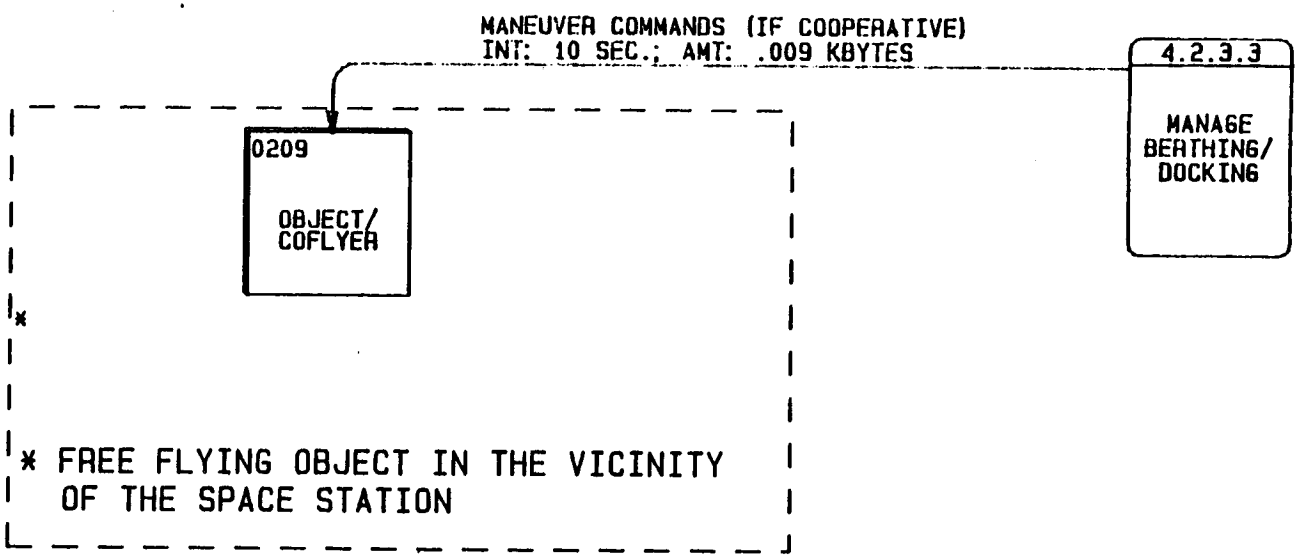
EXTERNAL INTERFACE: SOLAR ARRAY



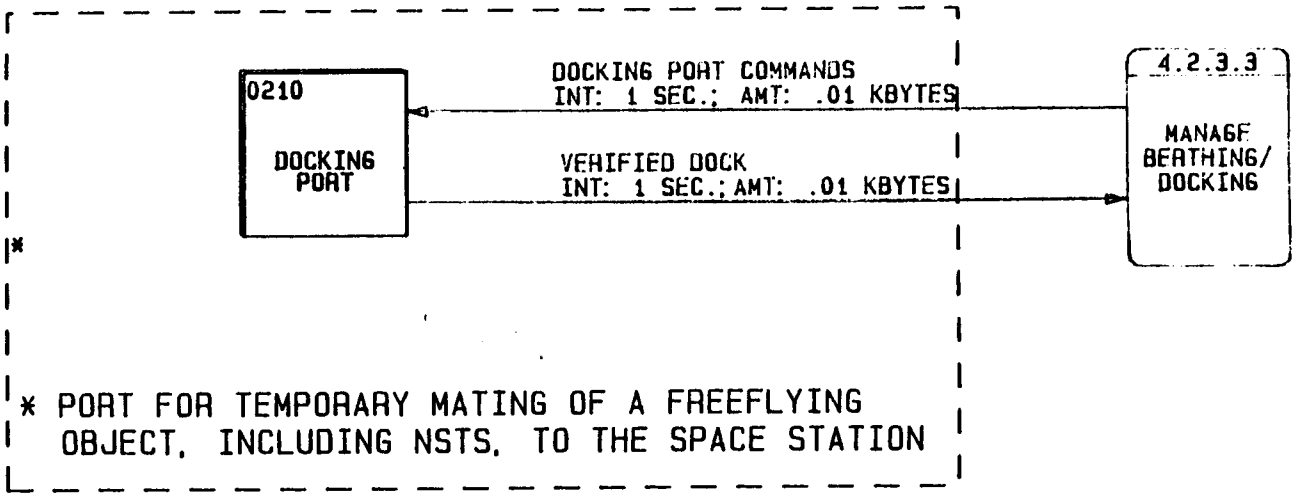
EXTERNAL INTERFACE: STRUCTURES/MECHANISMS SENSORS/EFFECTORS



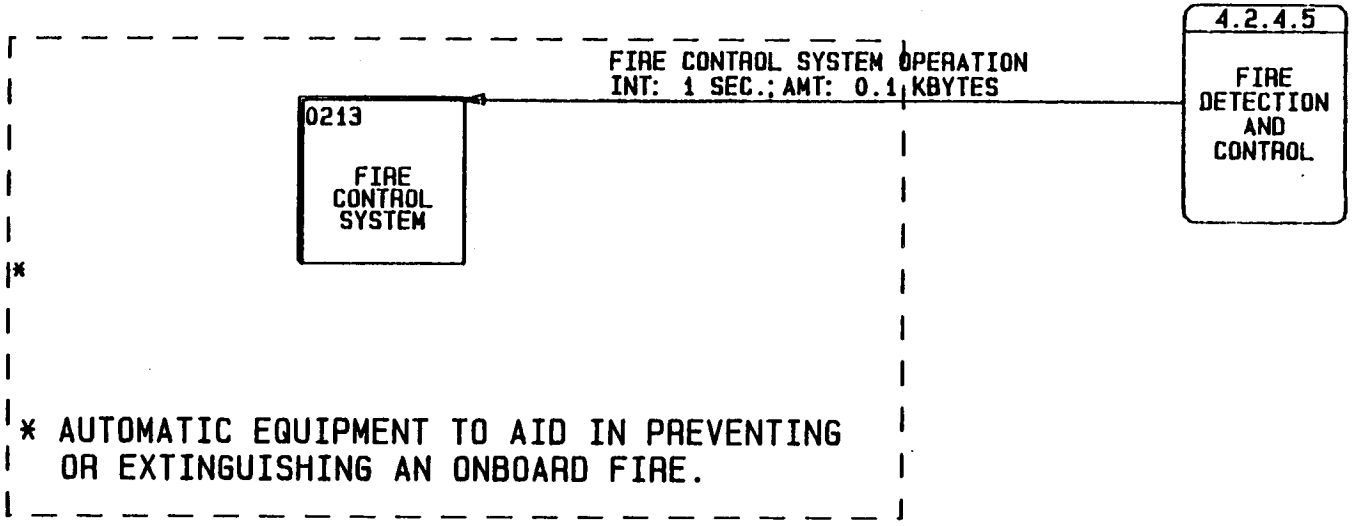
EXTERNAL INTERFACE: MRMS



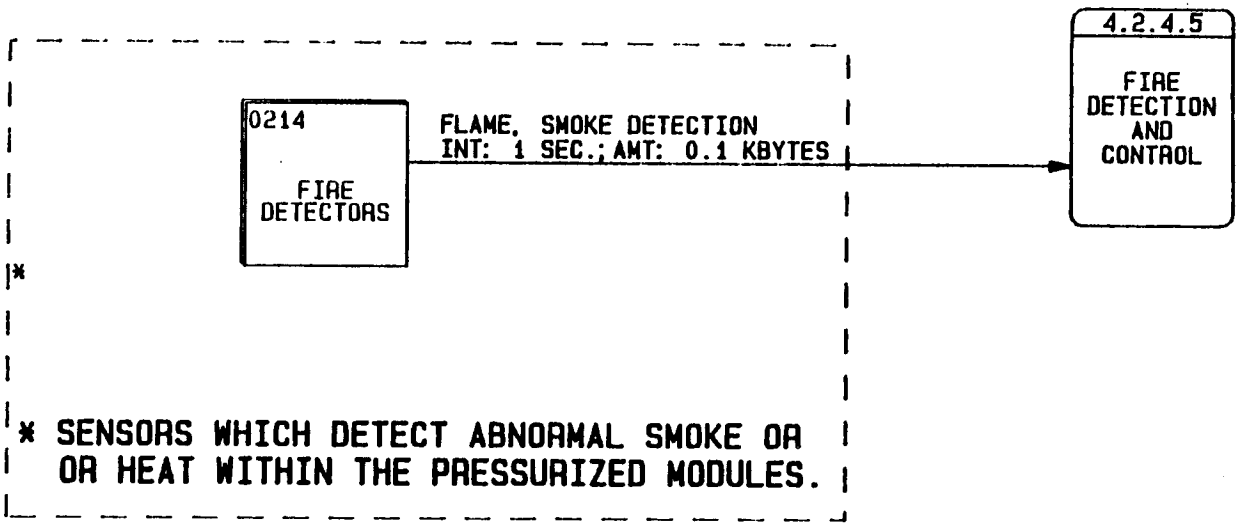
EXTERNAL INTERFACE: OBJECT/COFLYER



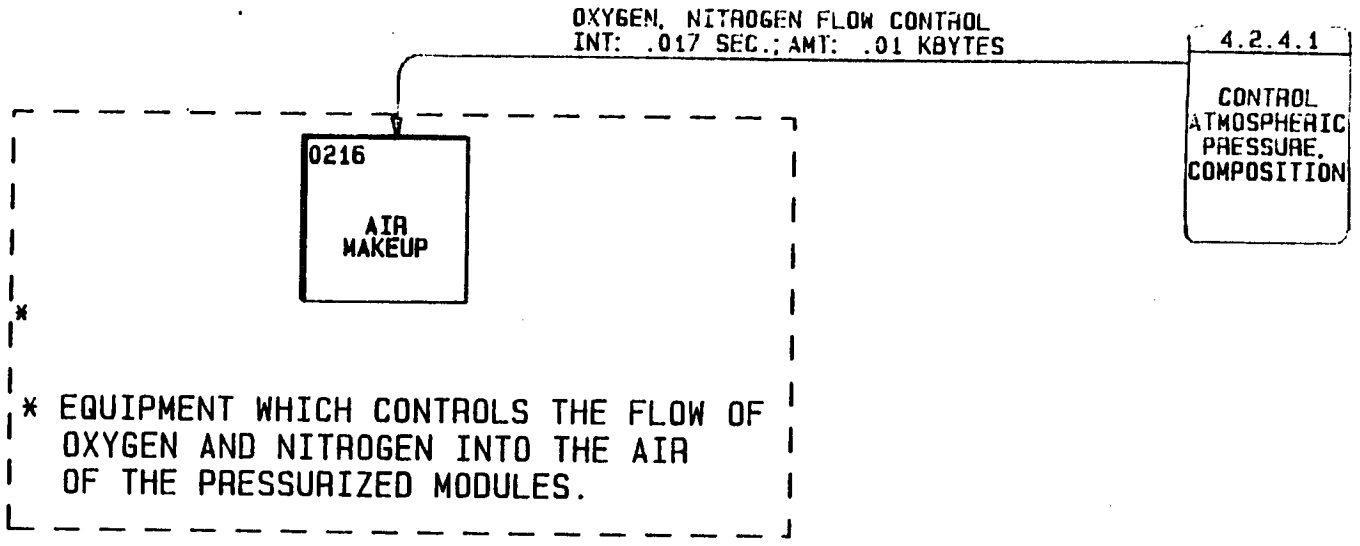
EXTERNAL INTERFACE: DOCKING PORT



EXTERNAL INTERFACE: FIRE CONTROL SYSTEM



EXTERNAL INTERFACE: FIRE DETECTORS



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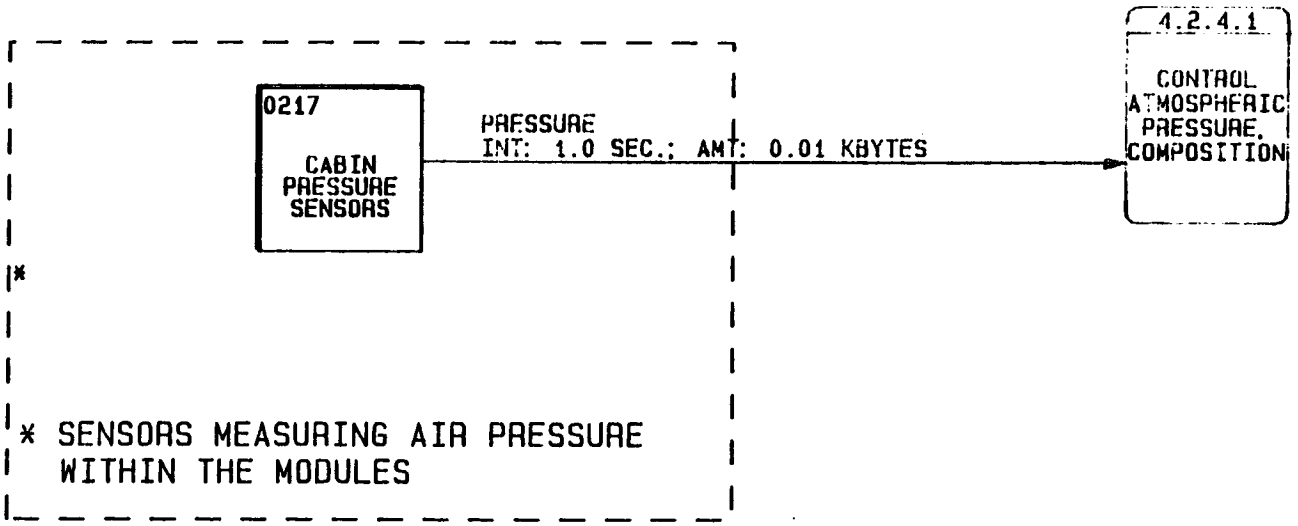
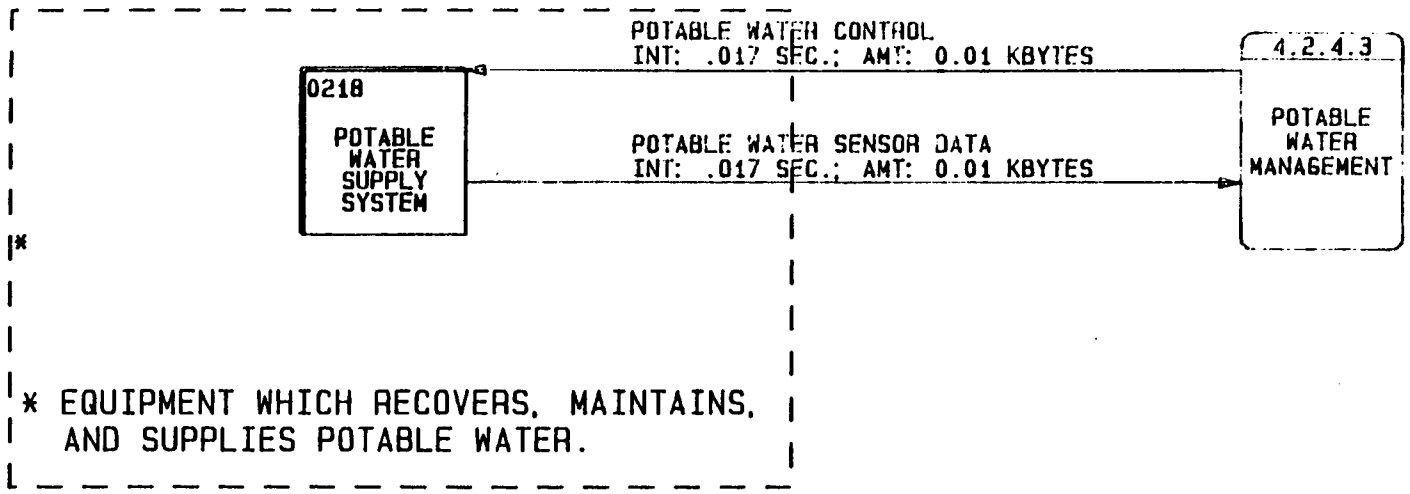
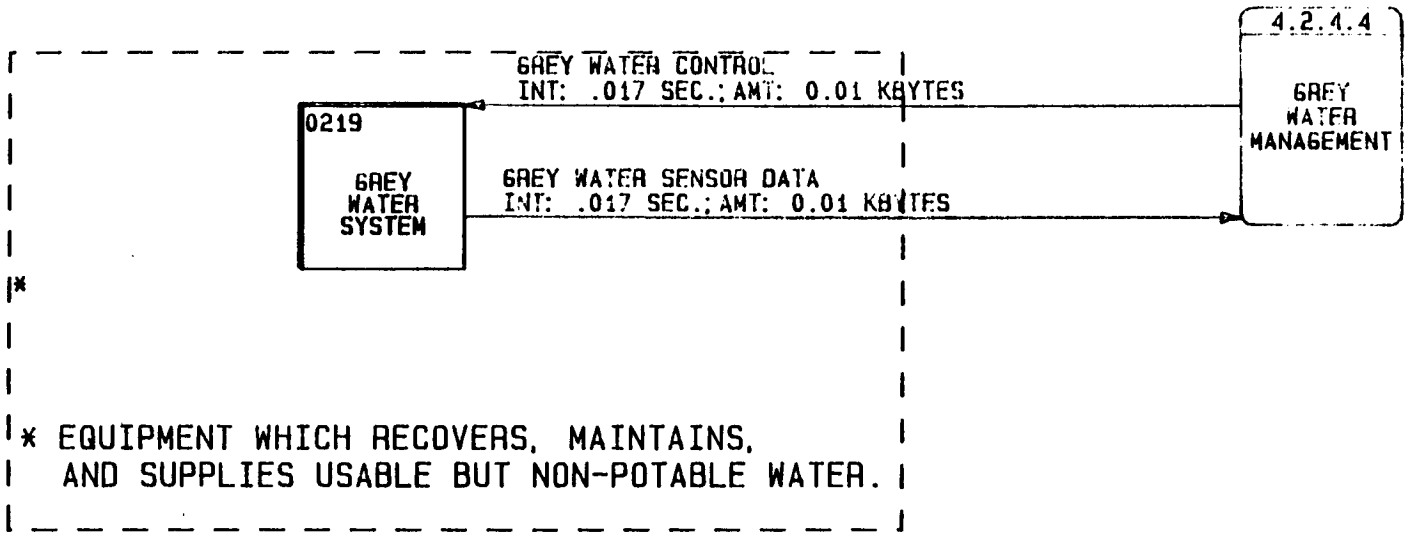
EXTERNAL INTERFACE: AIR MAKEUP



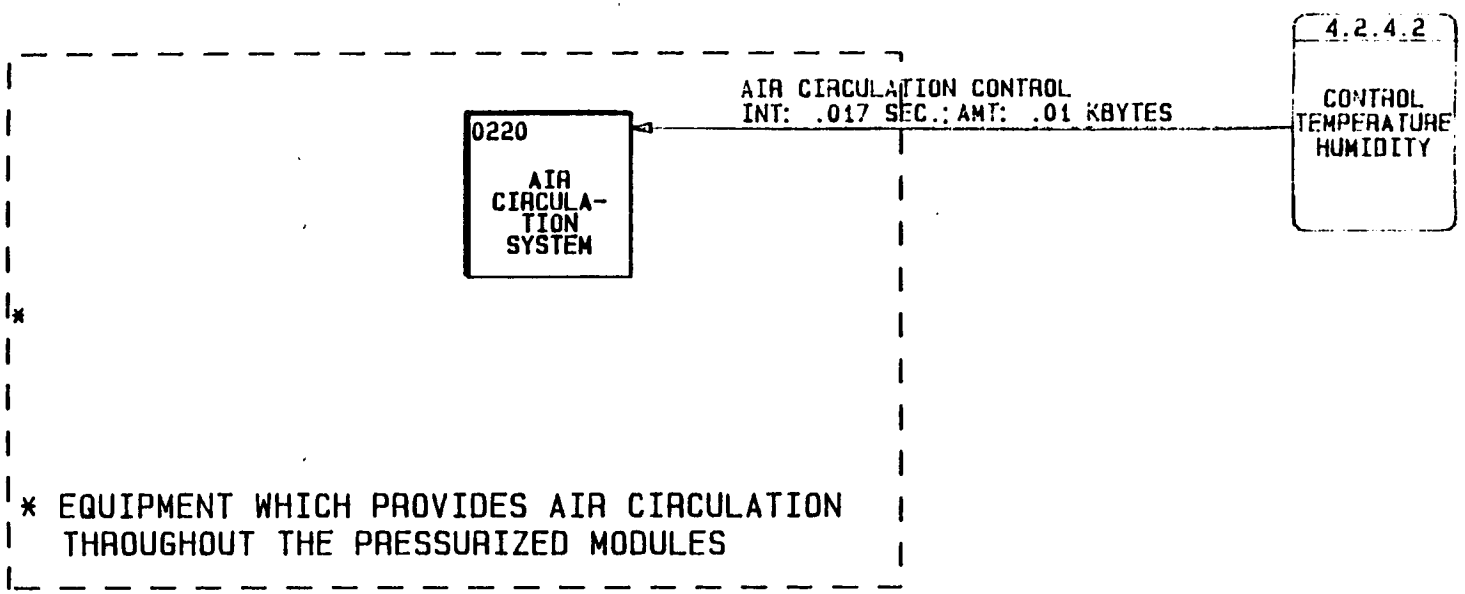
EXTERNAL INTERFACE: CABIN PRESSURE SENSORS



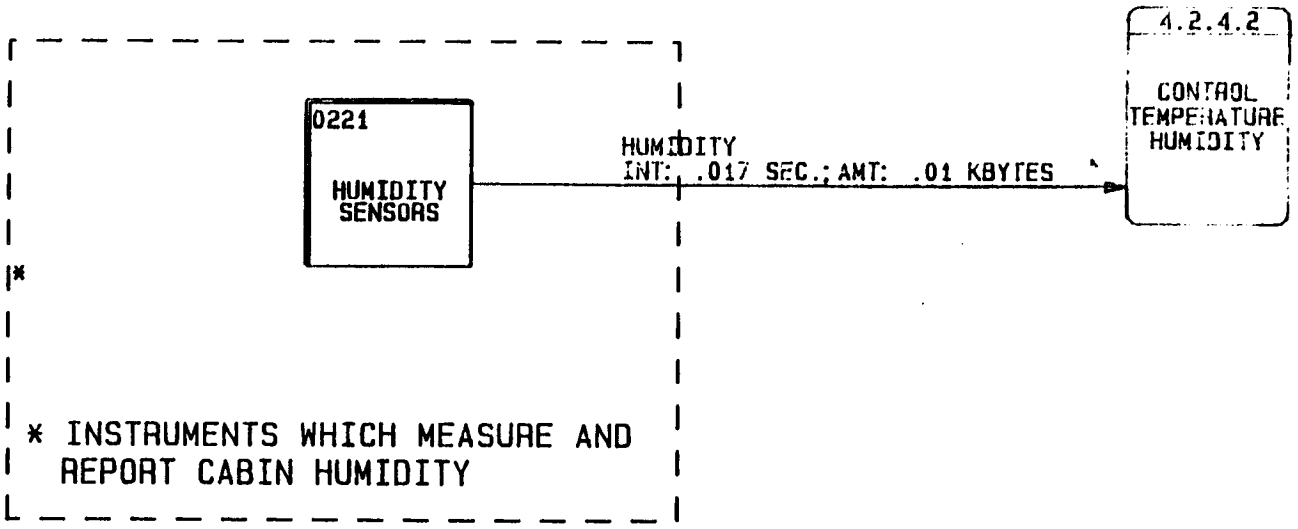
EXTERNAL INTERFACE: POTABLE WATER SUPPLY SYSTEM



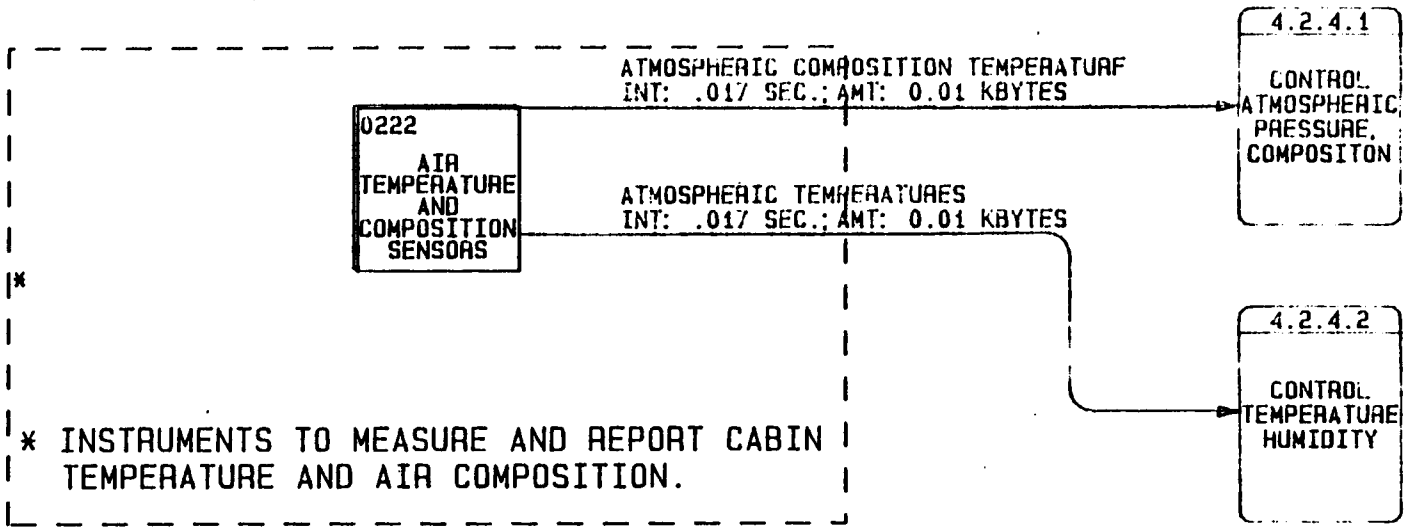
EXTERNAL INTERFACE: GREY WATER SYSTEM



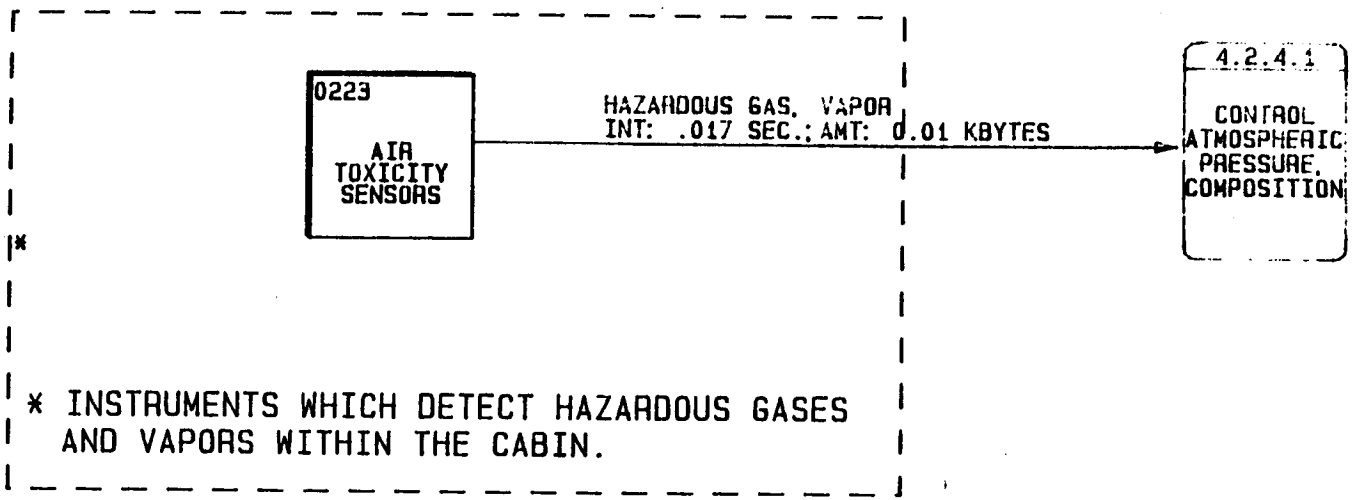
EXTERNAL INTERFACE: AIR CIRCULATION SYSTEM



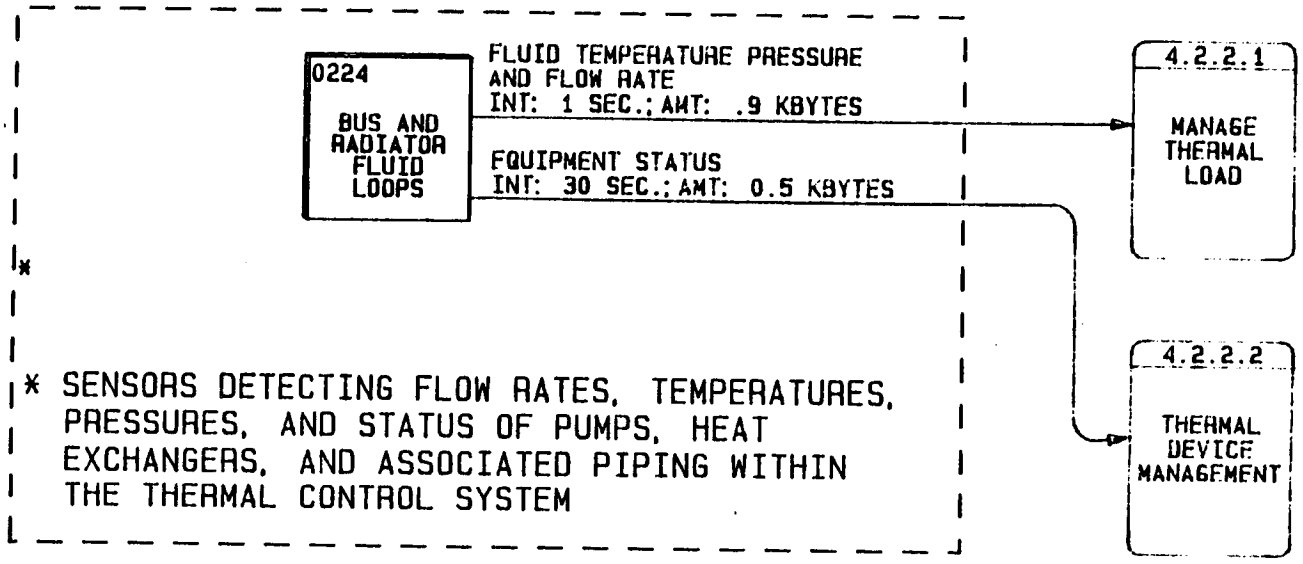
EXTERNAL INTERFACE: HUMIDITY SENSORS



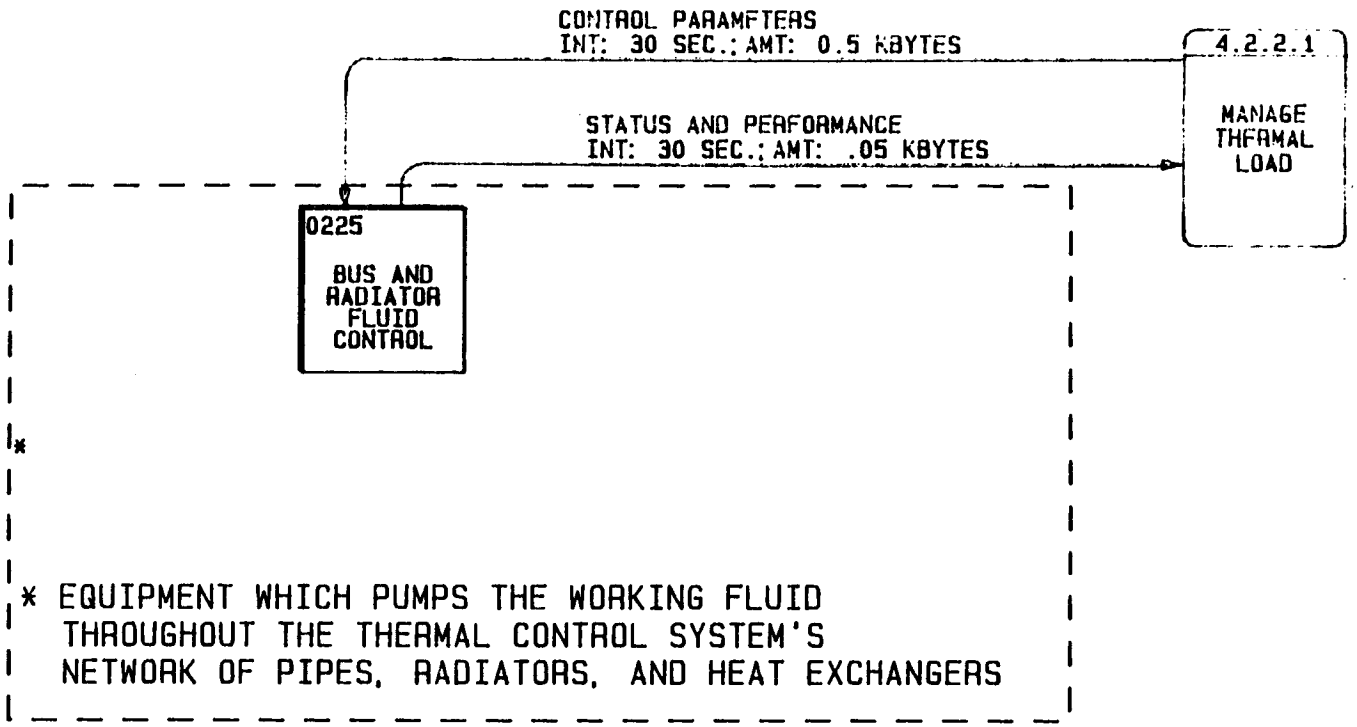
EXTERNAL INTERFACE: TEMPERATURE AND COMPOSITION SENSORS



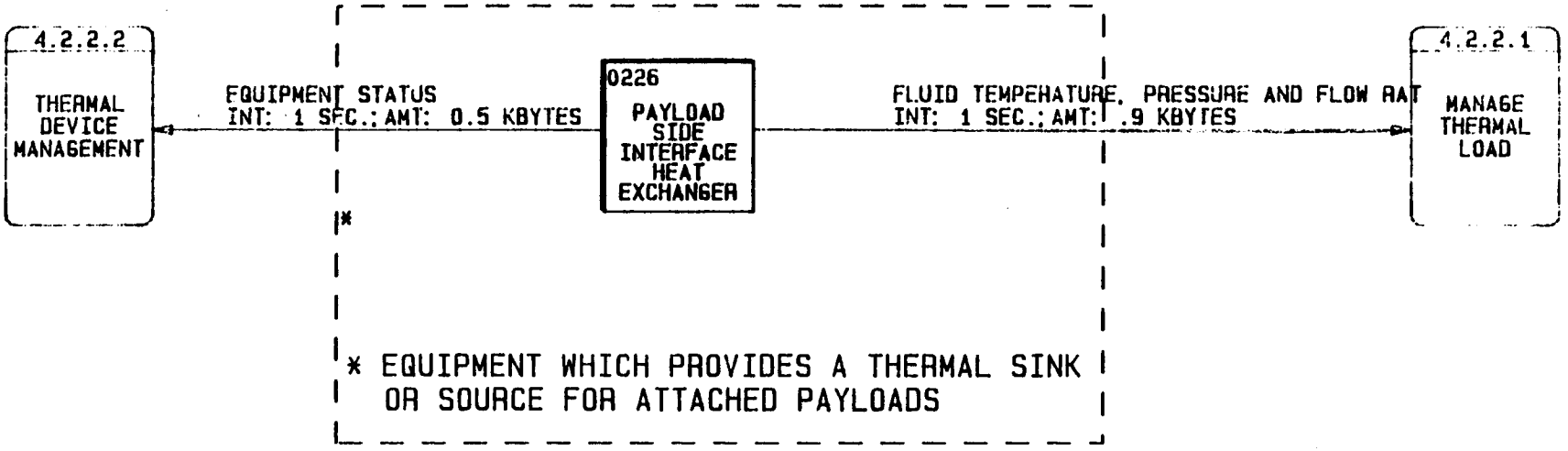
EXTERNAL INTERFACE: AIR TOXICITY SENSORS



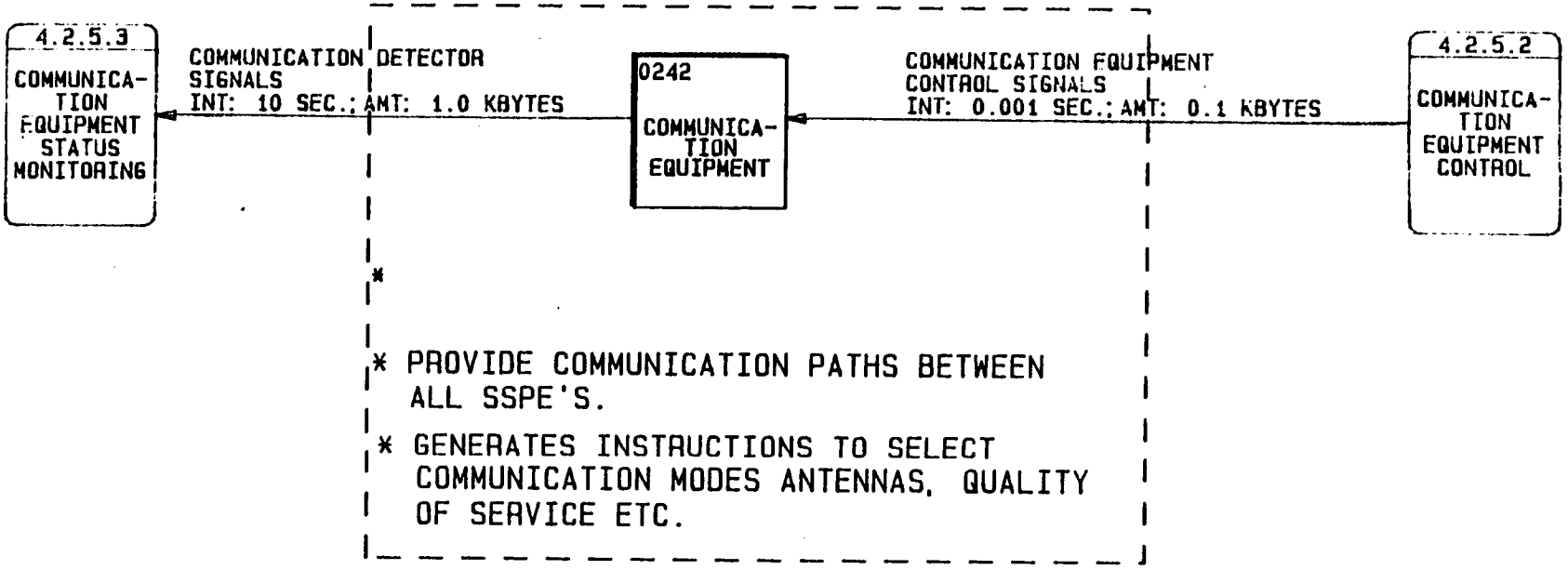
EXTERNAL INTERFACE: BUS AND RADIATOR FLUID LOOPS



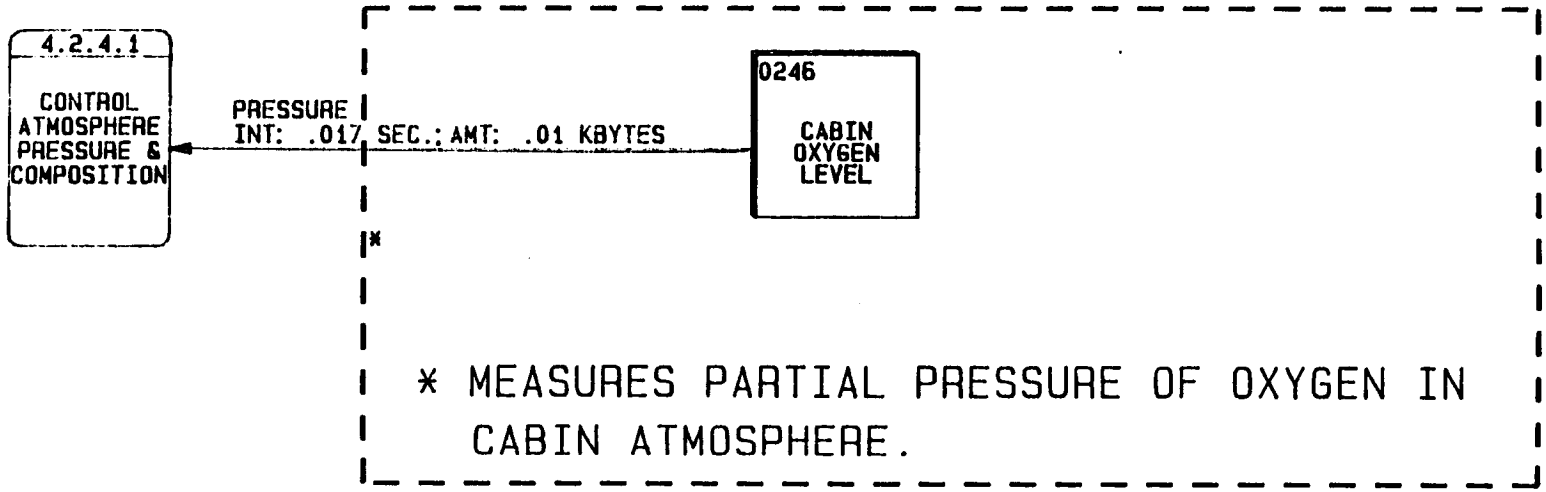
EXTERNAL INTERFACE: BUS AND RADIATOR FLUID CONTROL



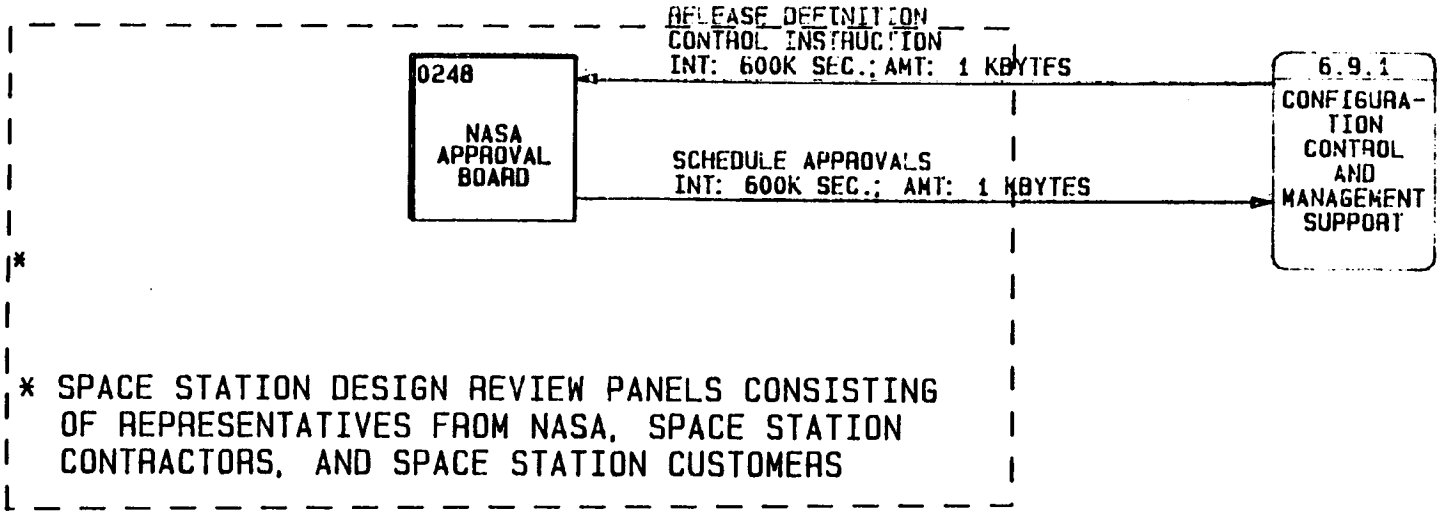
EXTERNAL INTERFACE: PAYLOAD SIDE INTERFACE HEAT EXCHANGER



EXTERNAL INTERFACE: COMMUNICATION EQUIPMENT



EXTERNAL INTERFACE: CABIN OXYGEN LEVEL



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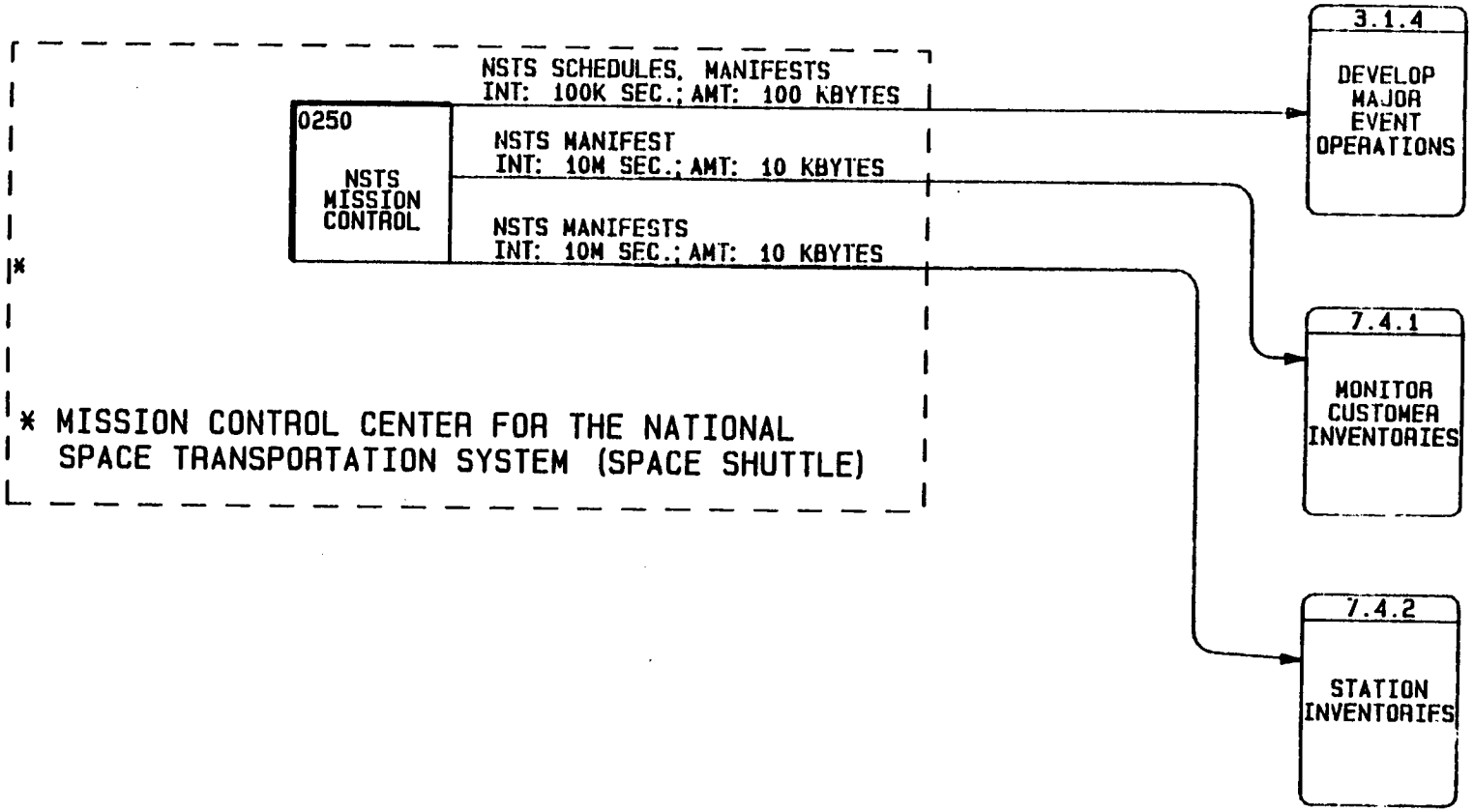
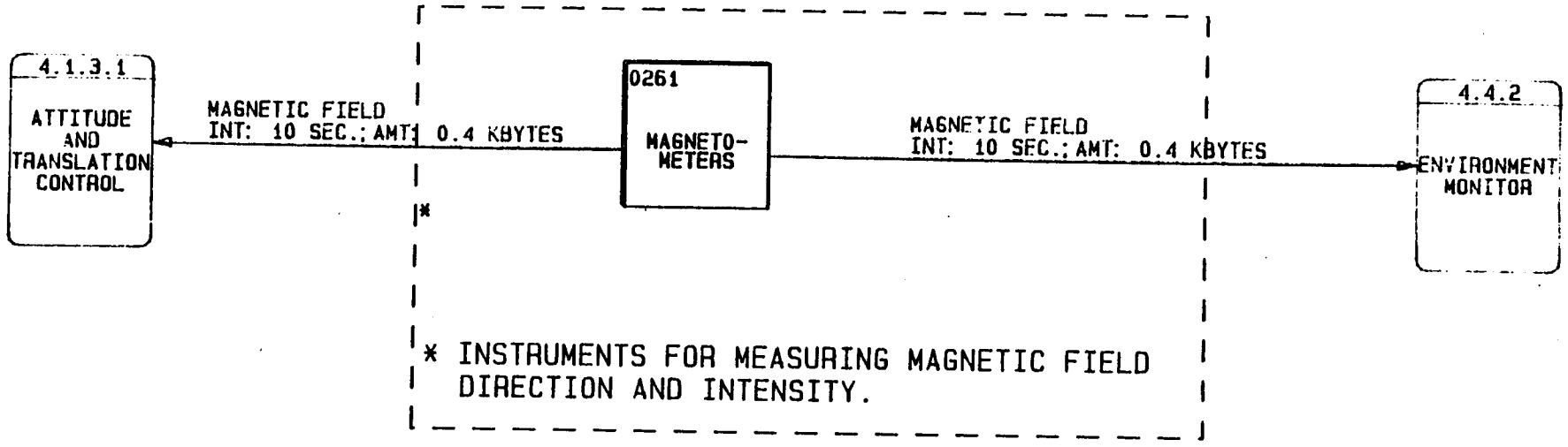
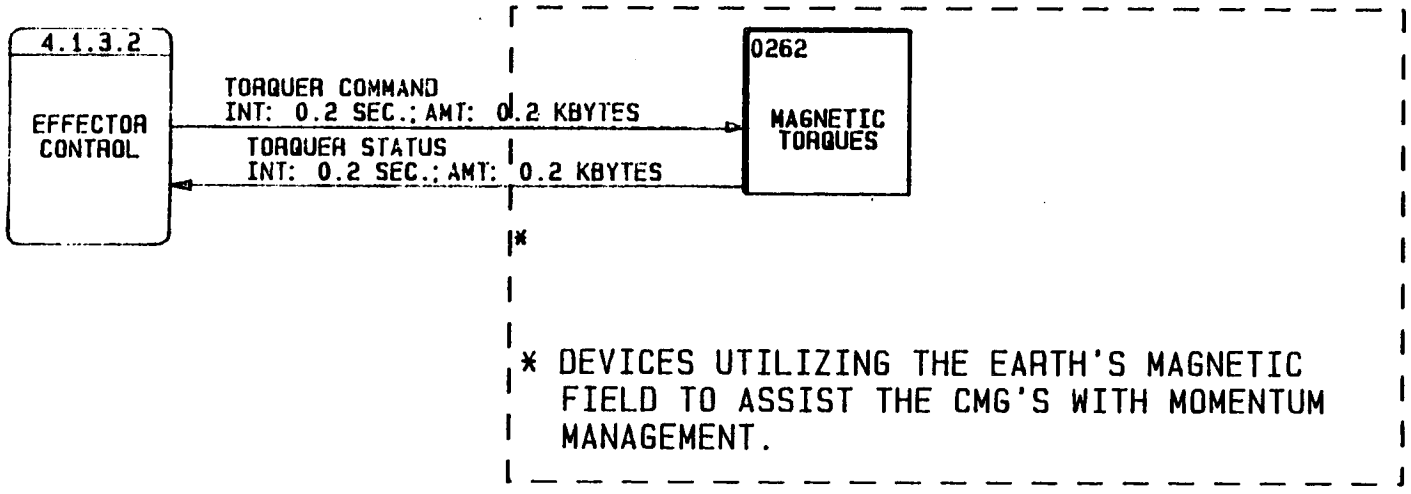
EXTERNAL INTERFACE: NASA, CONTRACTOR, CUSTOMER, CONTROL BOARDS



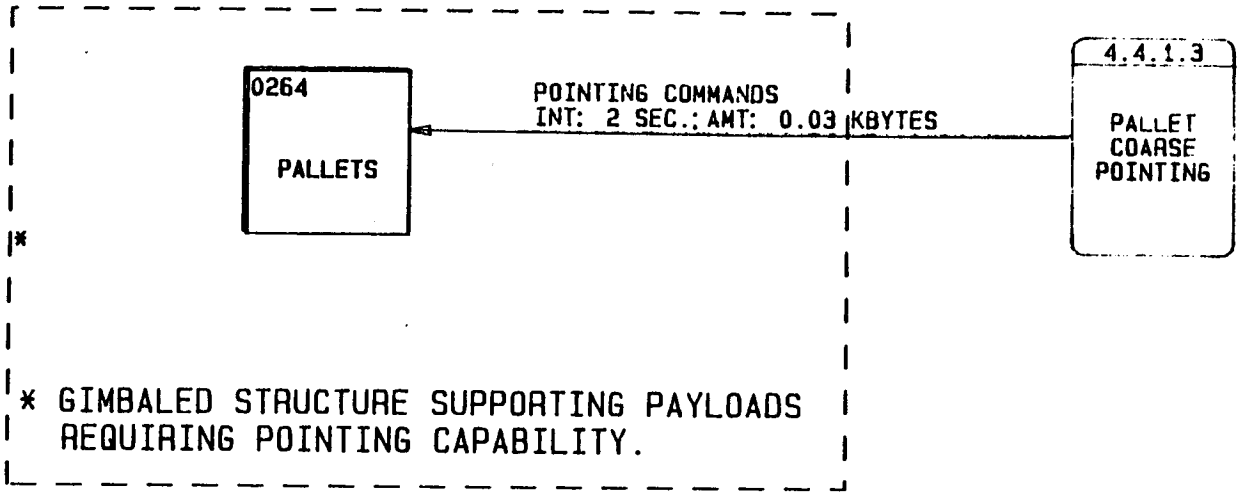
EXTERNAL INTERFACE: NSTS MISSION CONTROL



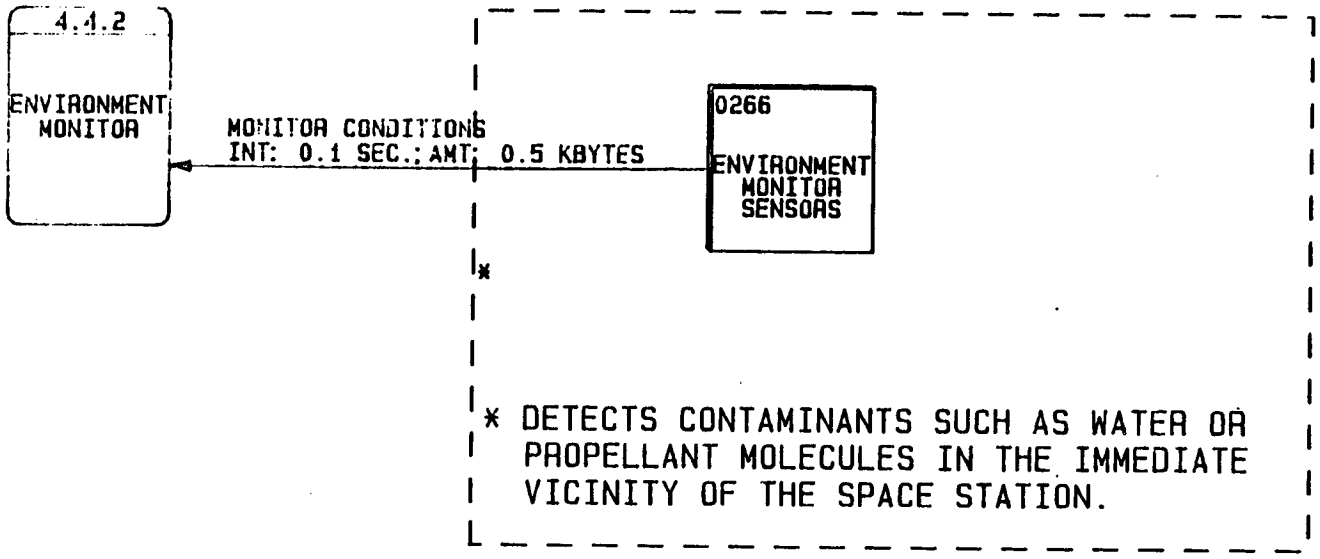
EXTERNAL INTERFACE: MAGNETOMETERS



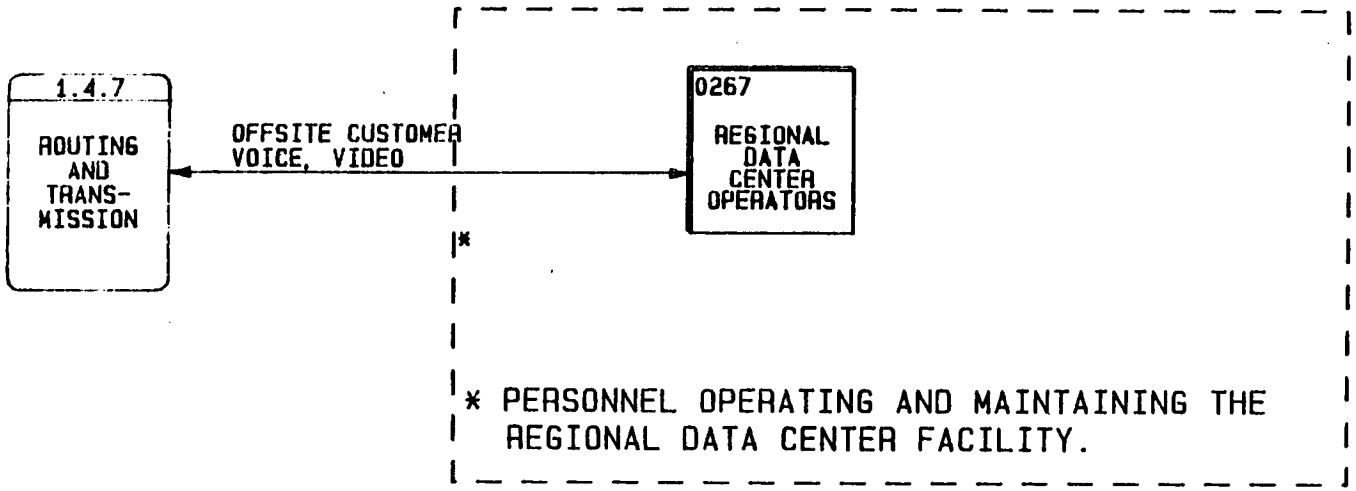
EXTERNAL INTERFACE: MAGNETIC TORQUERS



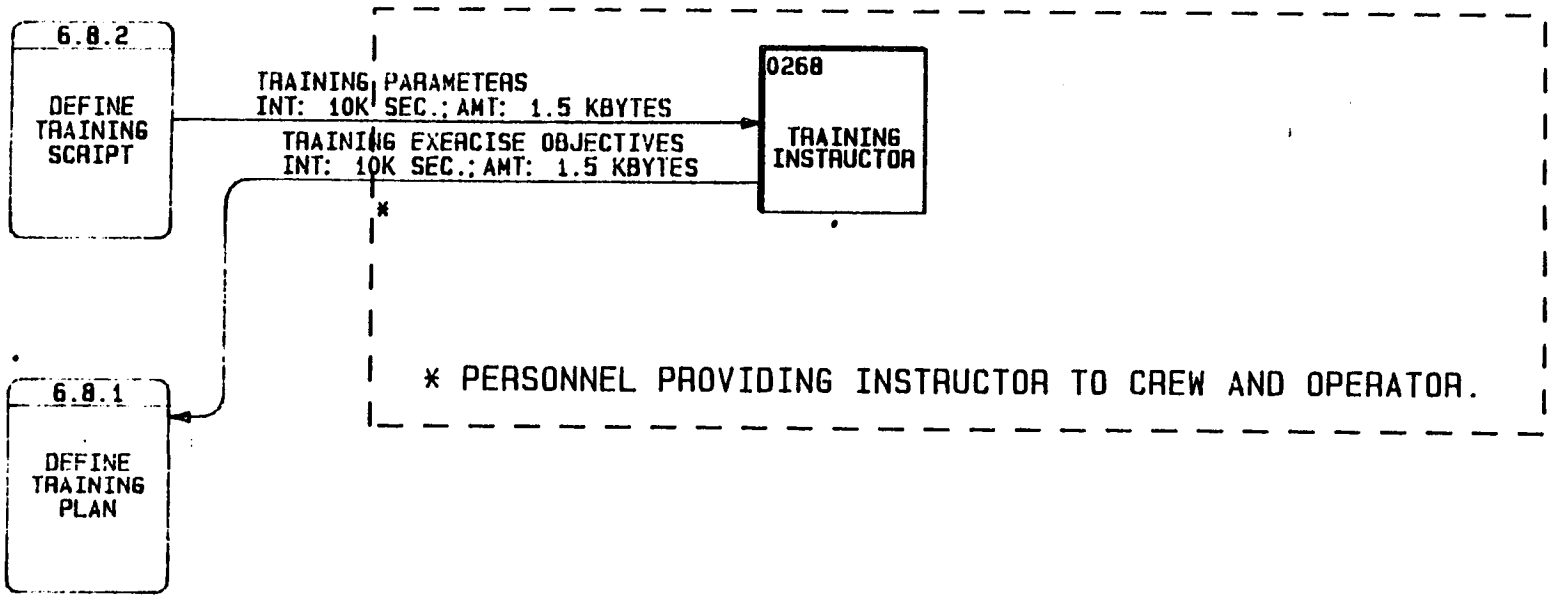
EXTERNAL INTERFACE: PALLET



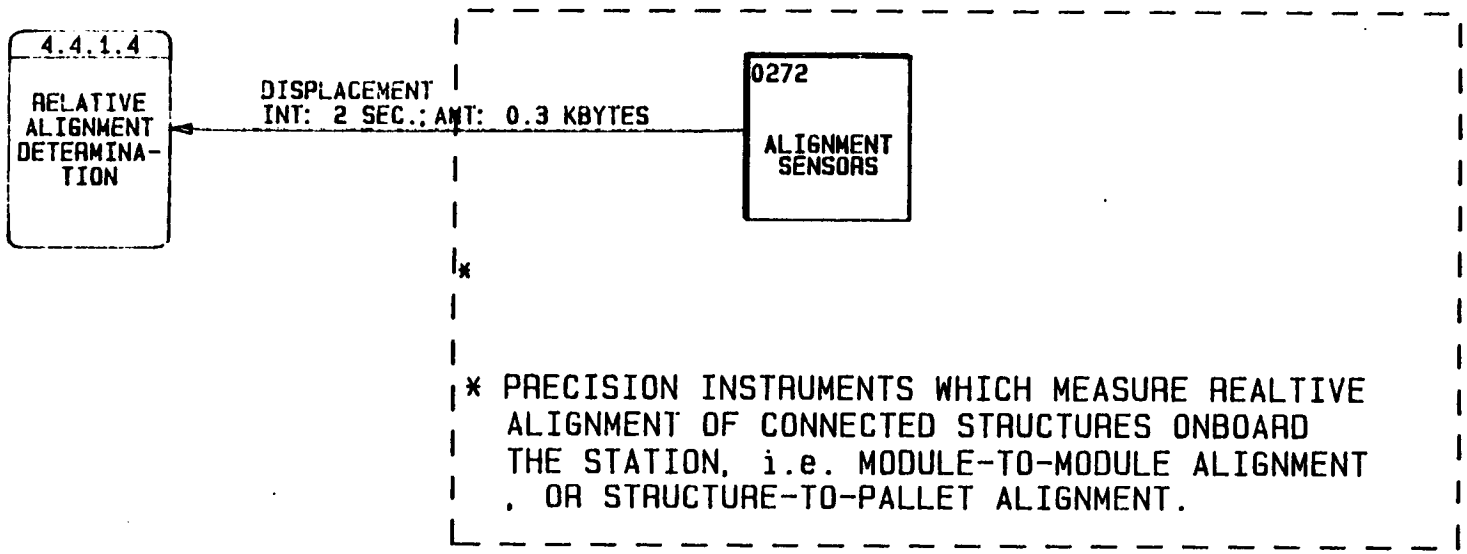
EXTERNAL INTERFACE: ENVIRONMENT MONITOR SENSORS



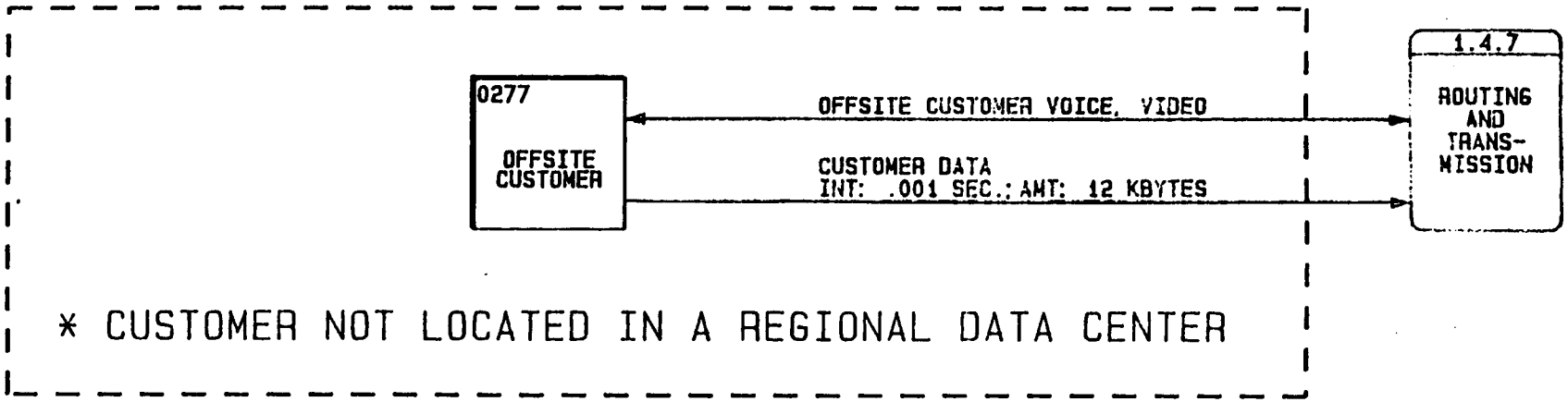
EXTERNAL INTERFACE: REGIONAL DATA CENTER OPERATORS



EXTERNAL INTERFACE: TRAINING INSTRUCTOR



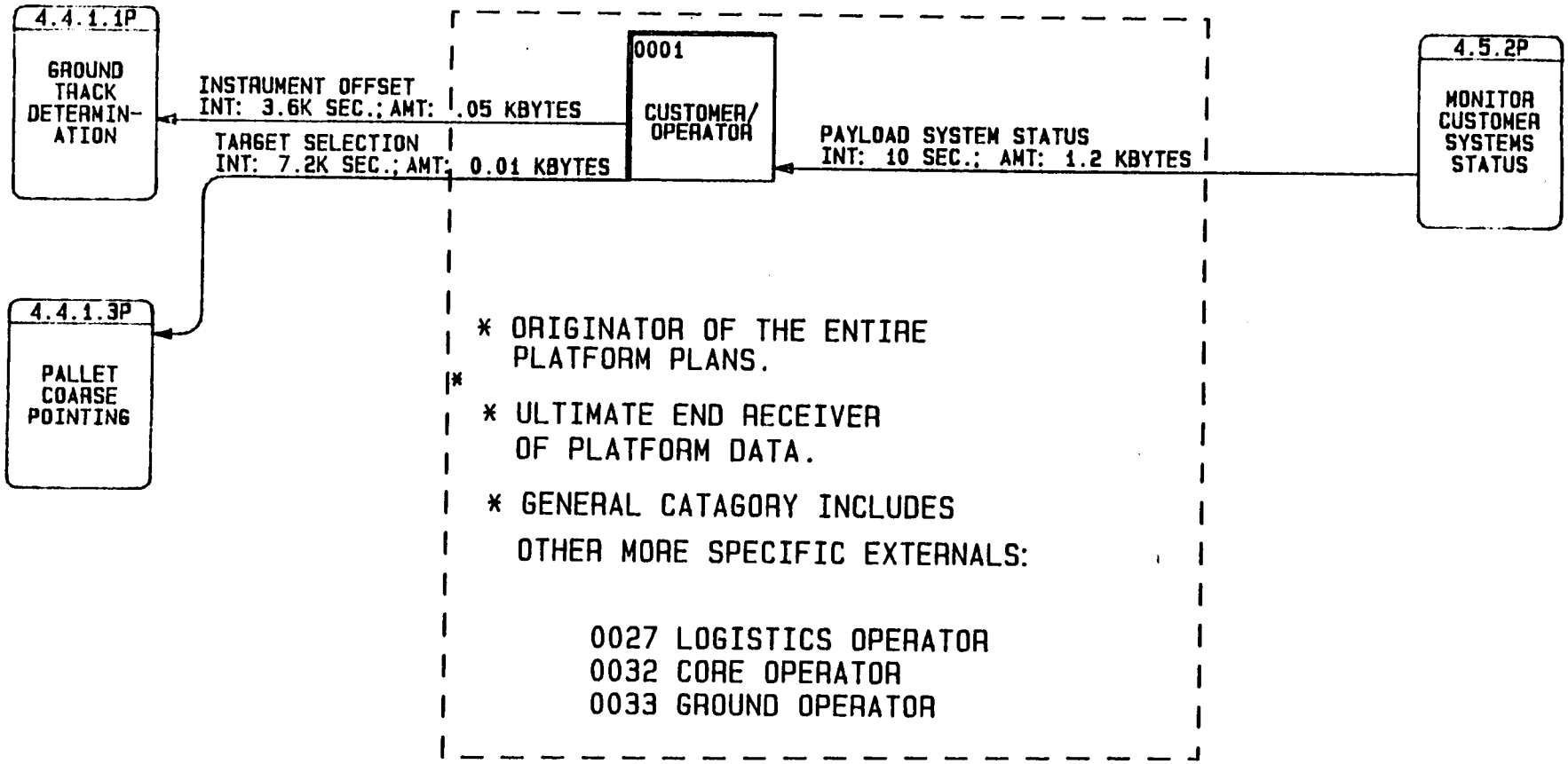
EXTERNAL INTERFACE: ALIGNMENT SENSORS



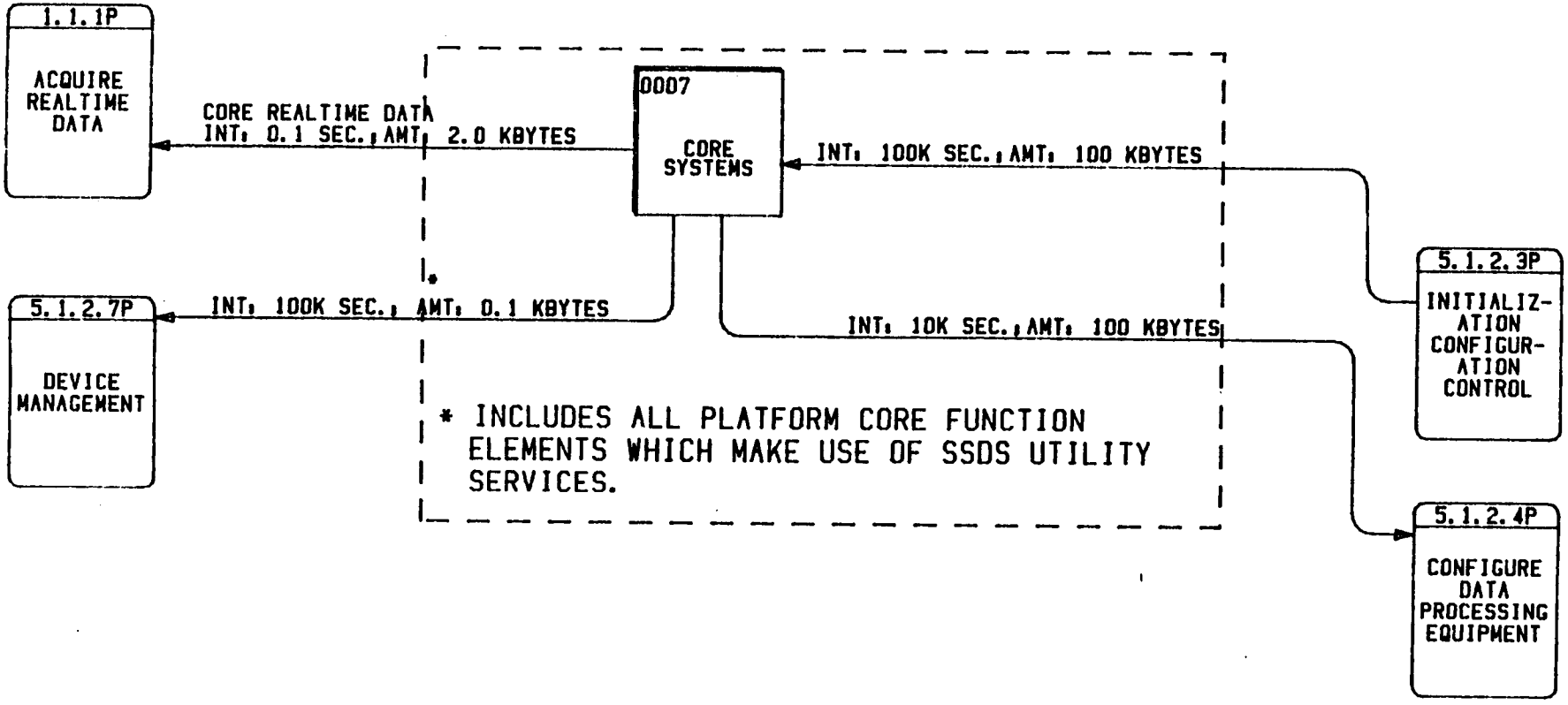
EXTERNAL INTERFACE: OFFSITE CUSTOMER

APPENDIX C (PLATFORM)

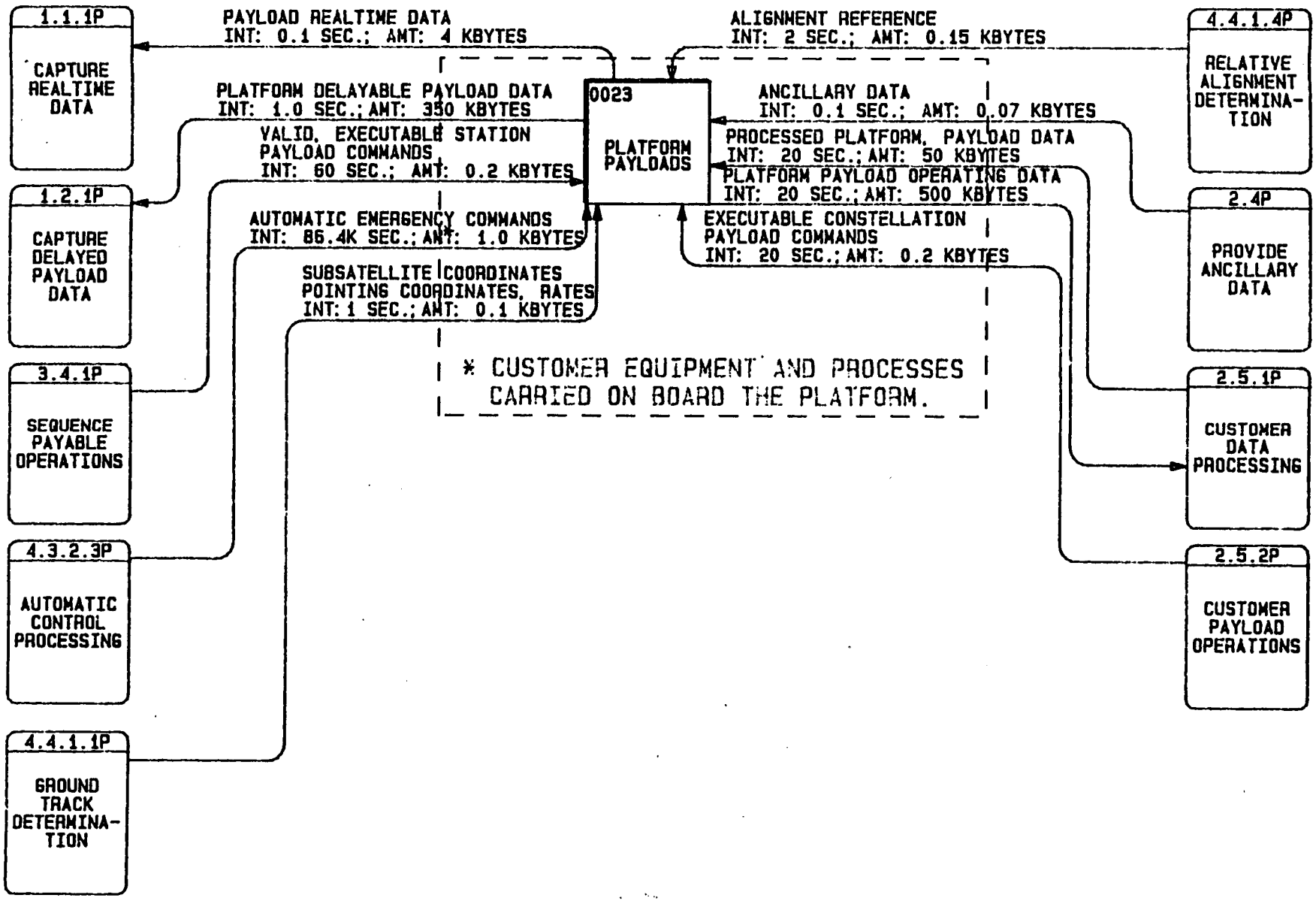
EXTERNAL INTERFACE SPECIFICATION



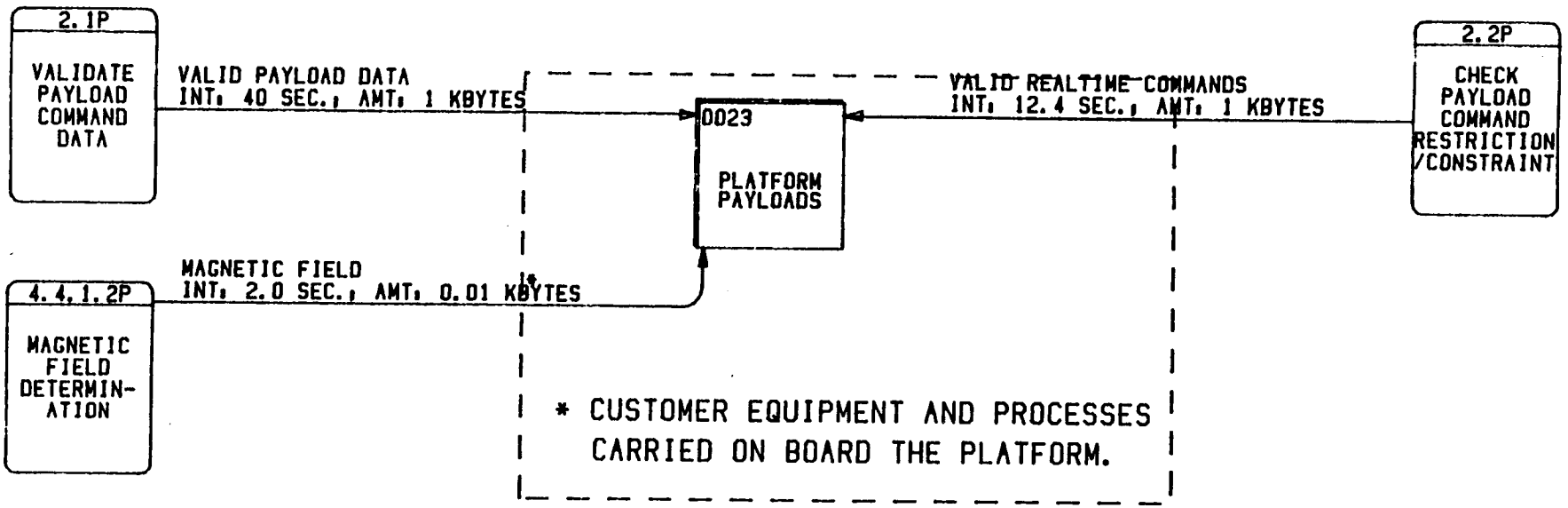
EXTERNAL INTERFACE: CUSTOMER/OPERATOR



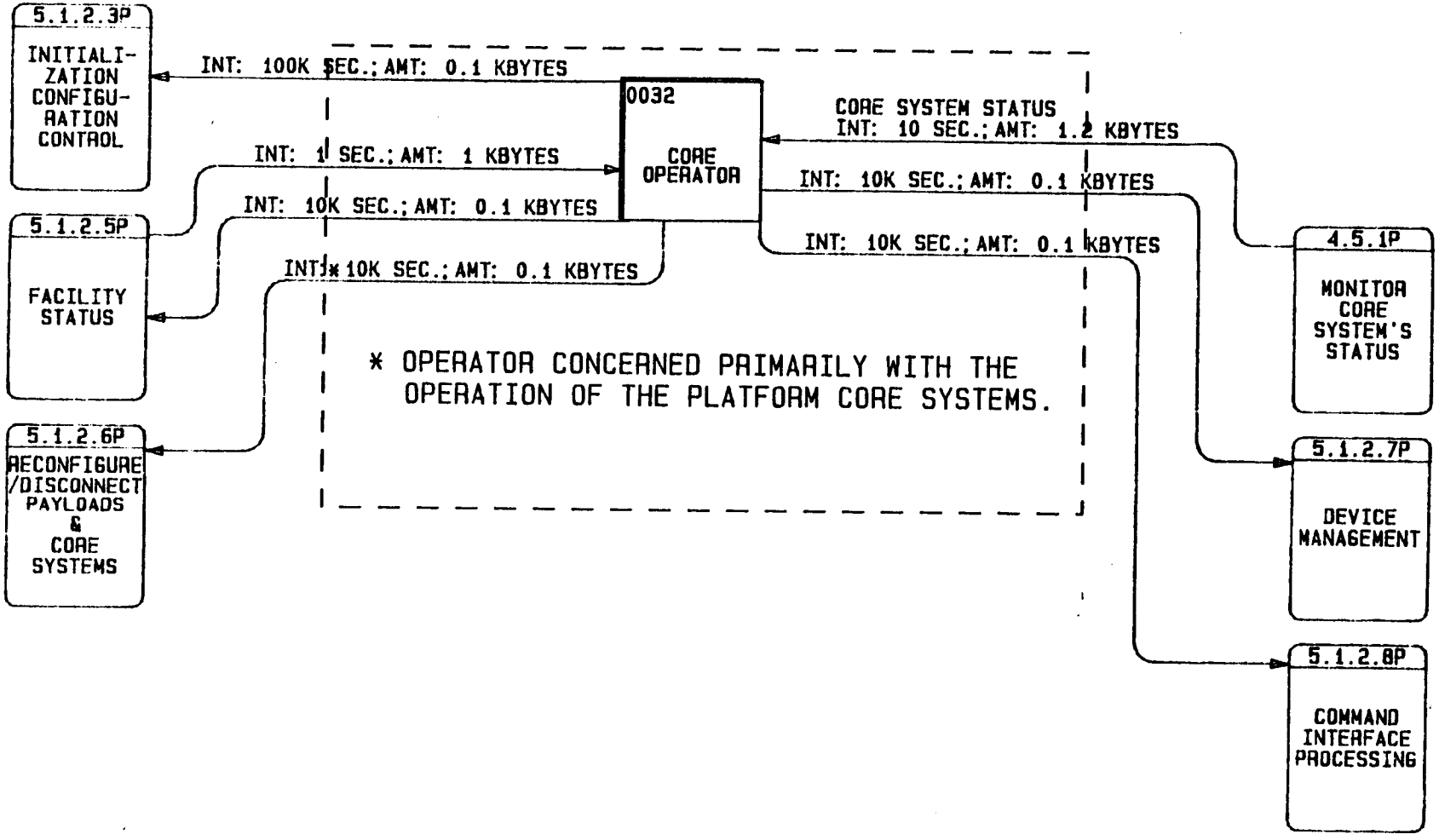
EXTERNAL INTERFACE: CORE SYSTEMS



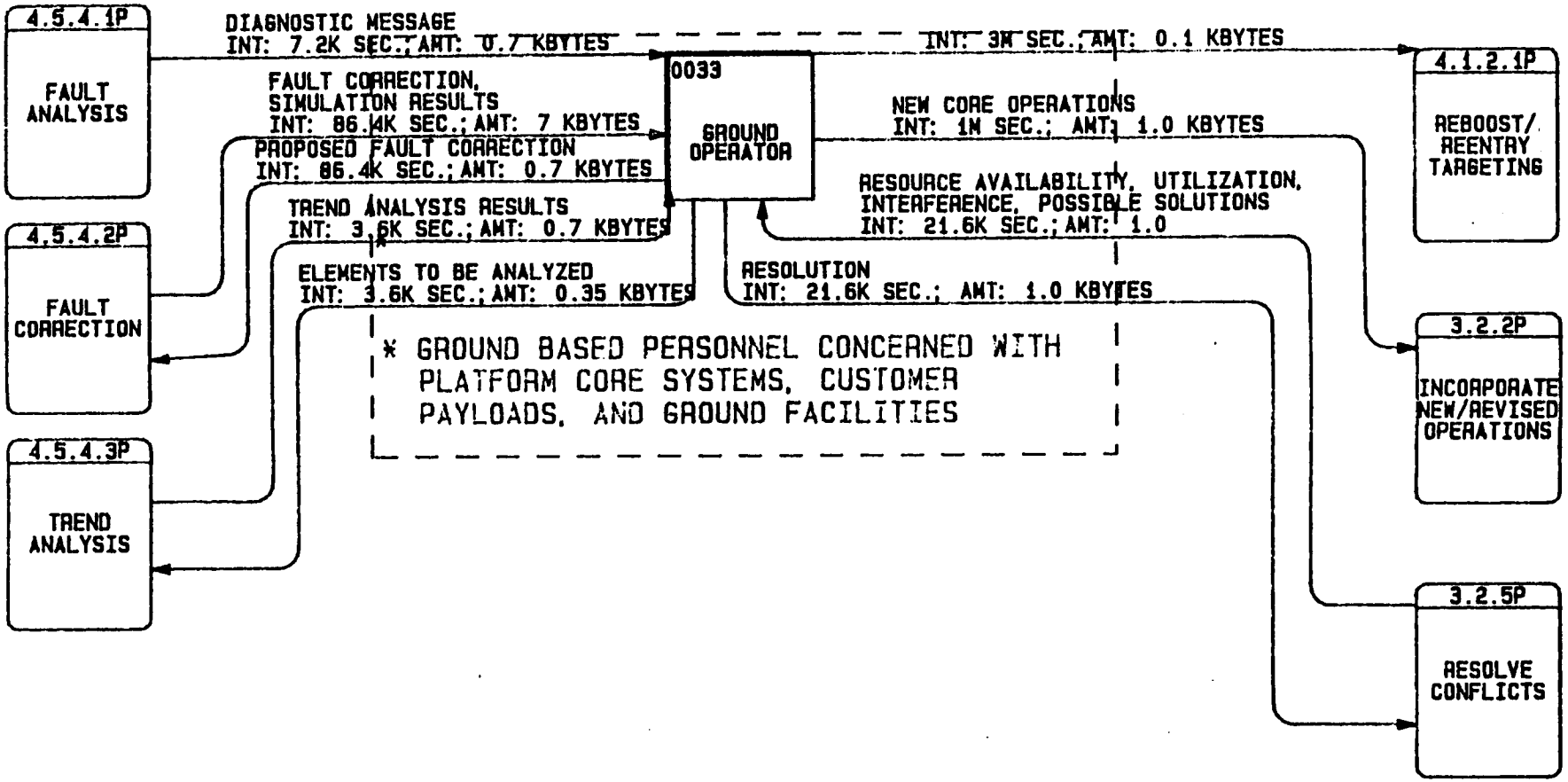
EXTERNAL INTERFACE: PLATFORM PAYLOADS PART I



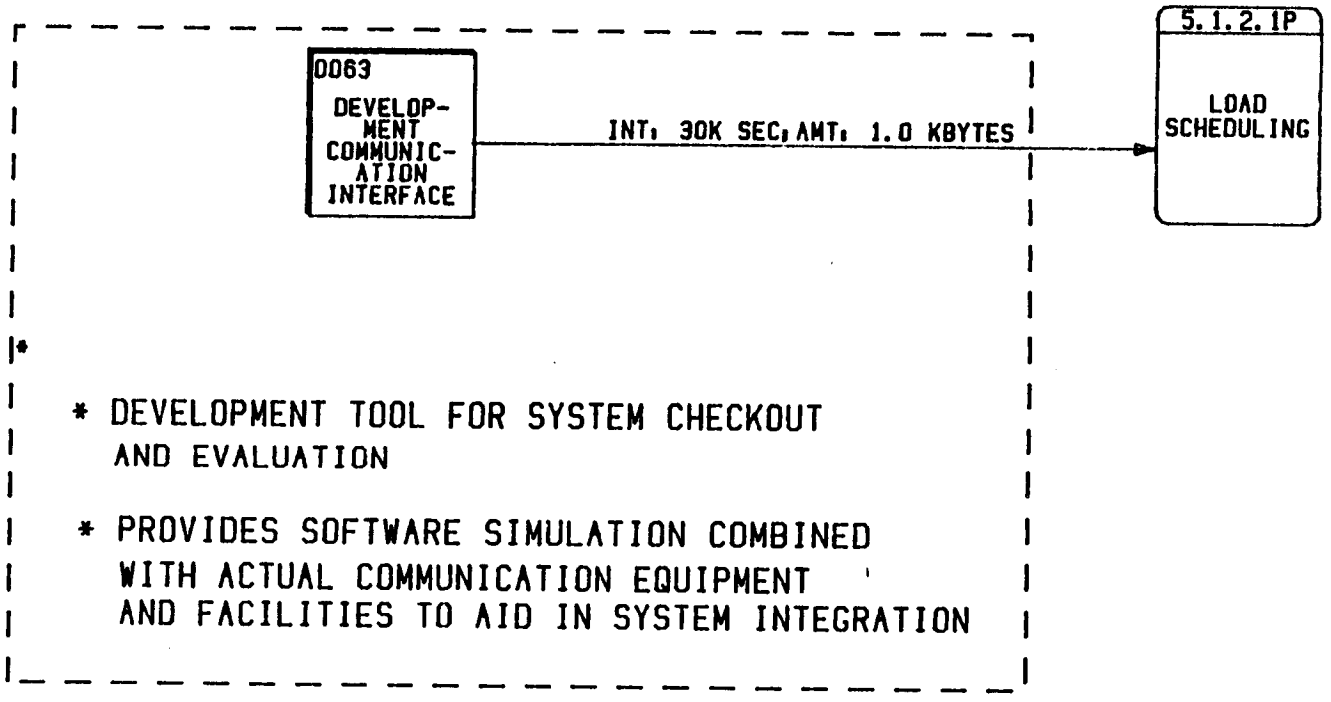
EXTERNAL INTERFACE: PLATFORM PAYLOADS PART II



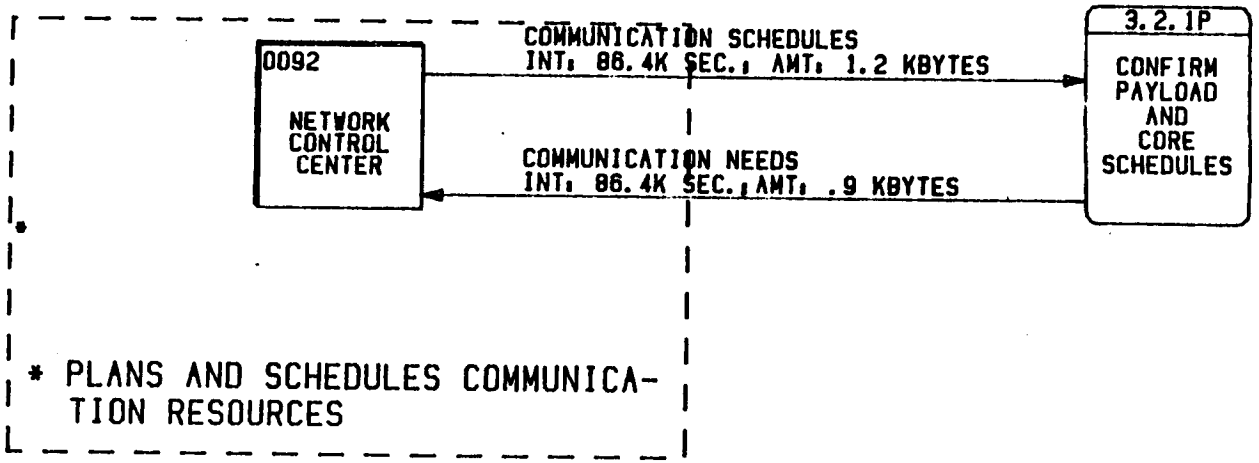
EXTERNAL INTERFACE: CORE OPERATOR



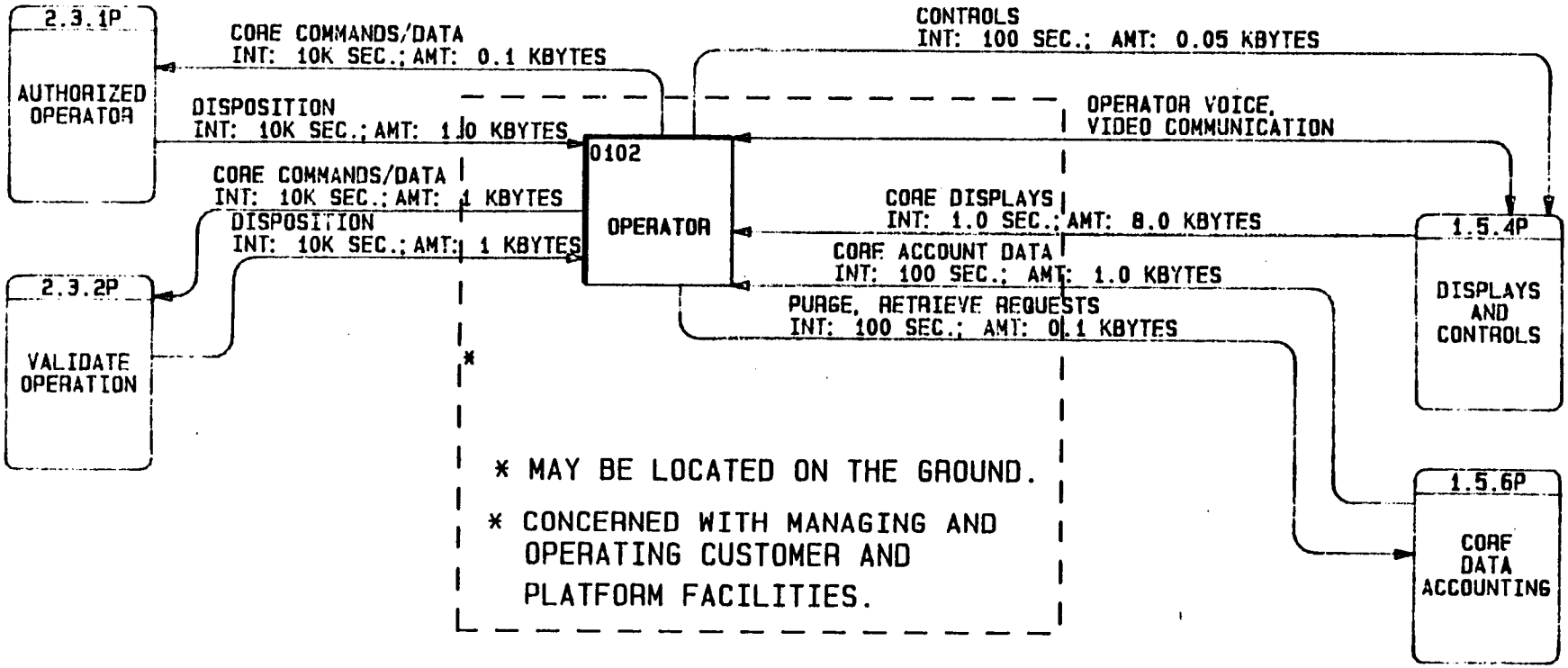
EXTERNAL INTERFACE: GROUND OPERATOR



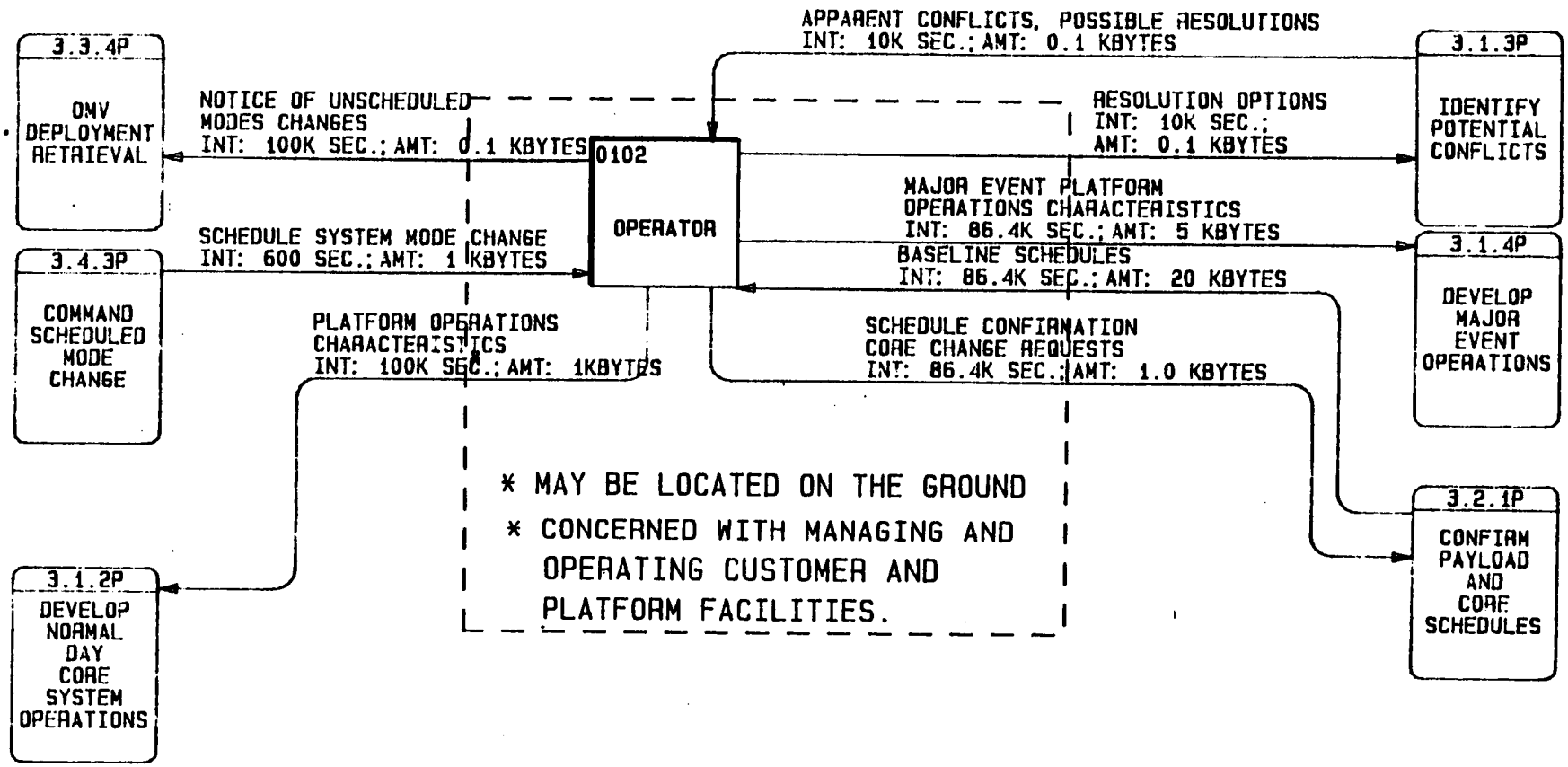
EXTERNAL INTERFACE: DEVELOPMENT COMMUNICATION INTERFACE



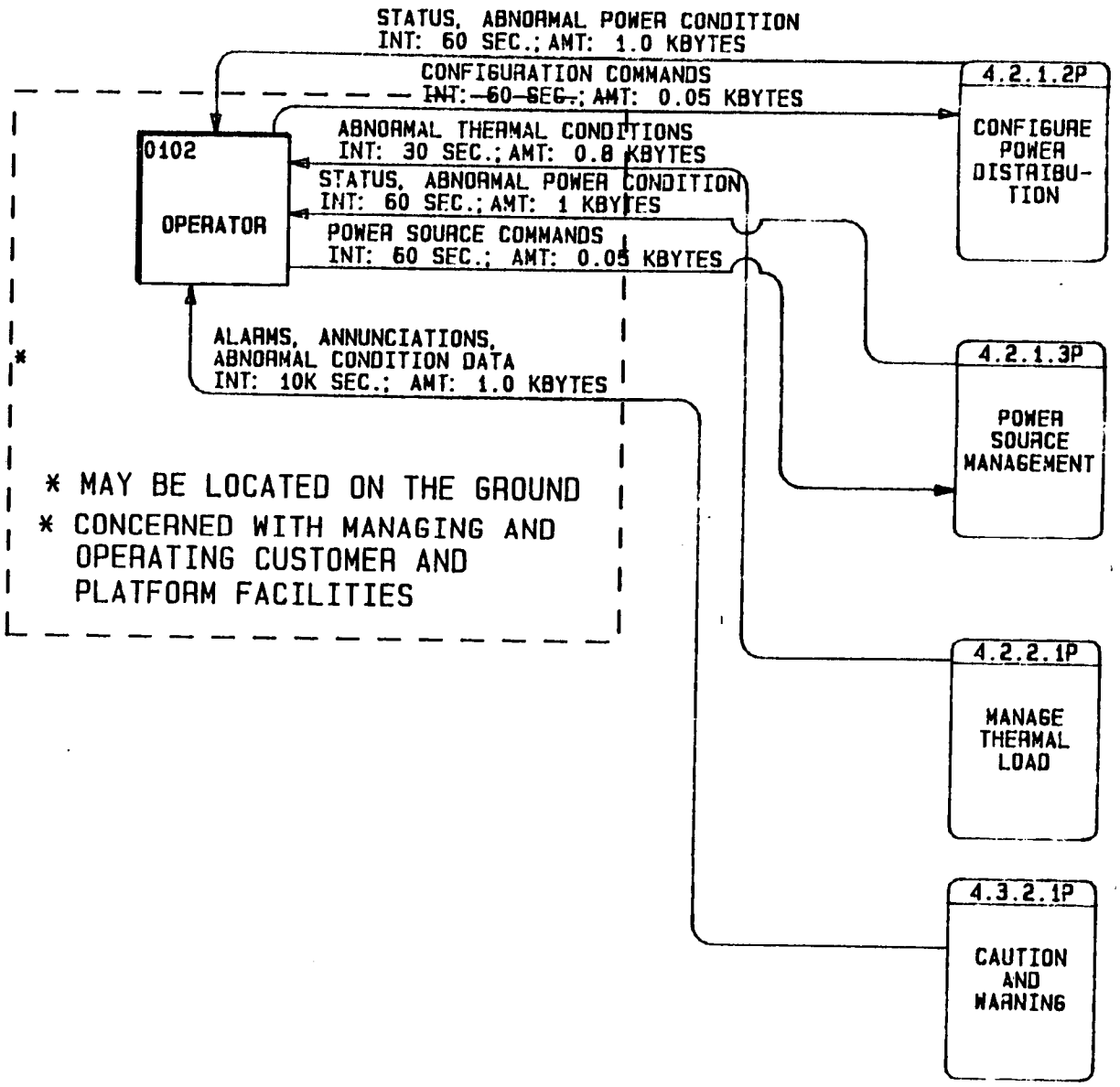
EXTERNAL INTERFACE: NETWORK CONTROL CENTER



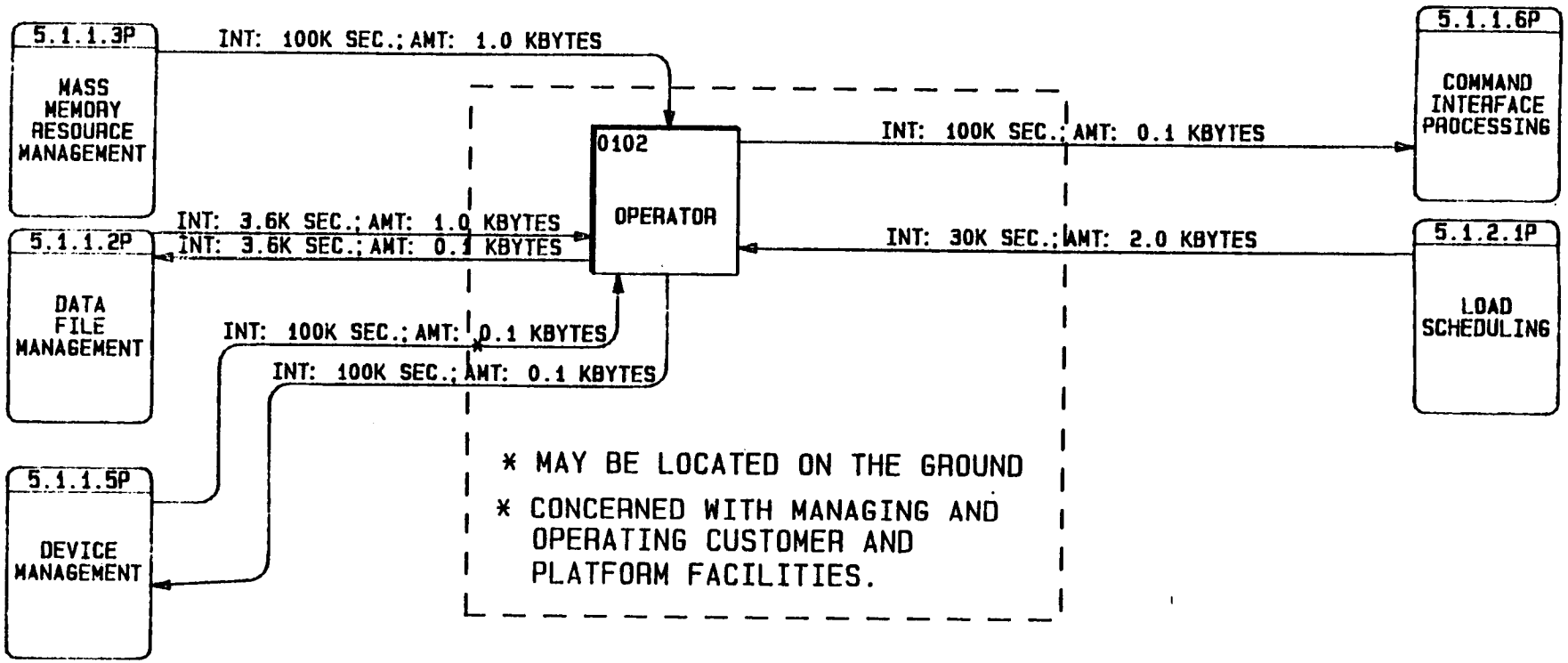
EXTERNAL INTERFACE: OPERATOR PART I



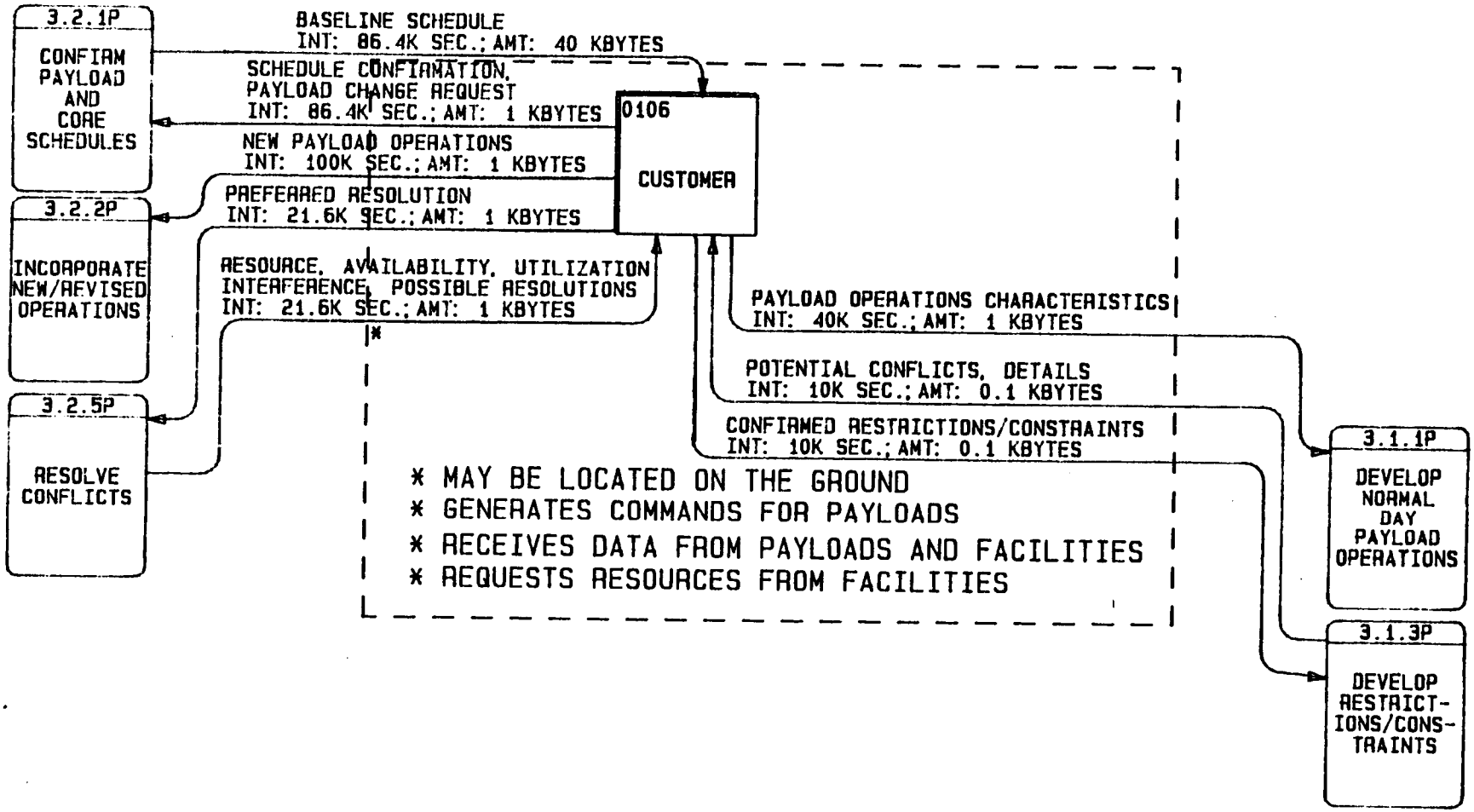
EXTERNAL INTERFACE: OPERATOR PART II



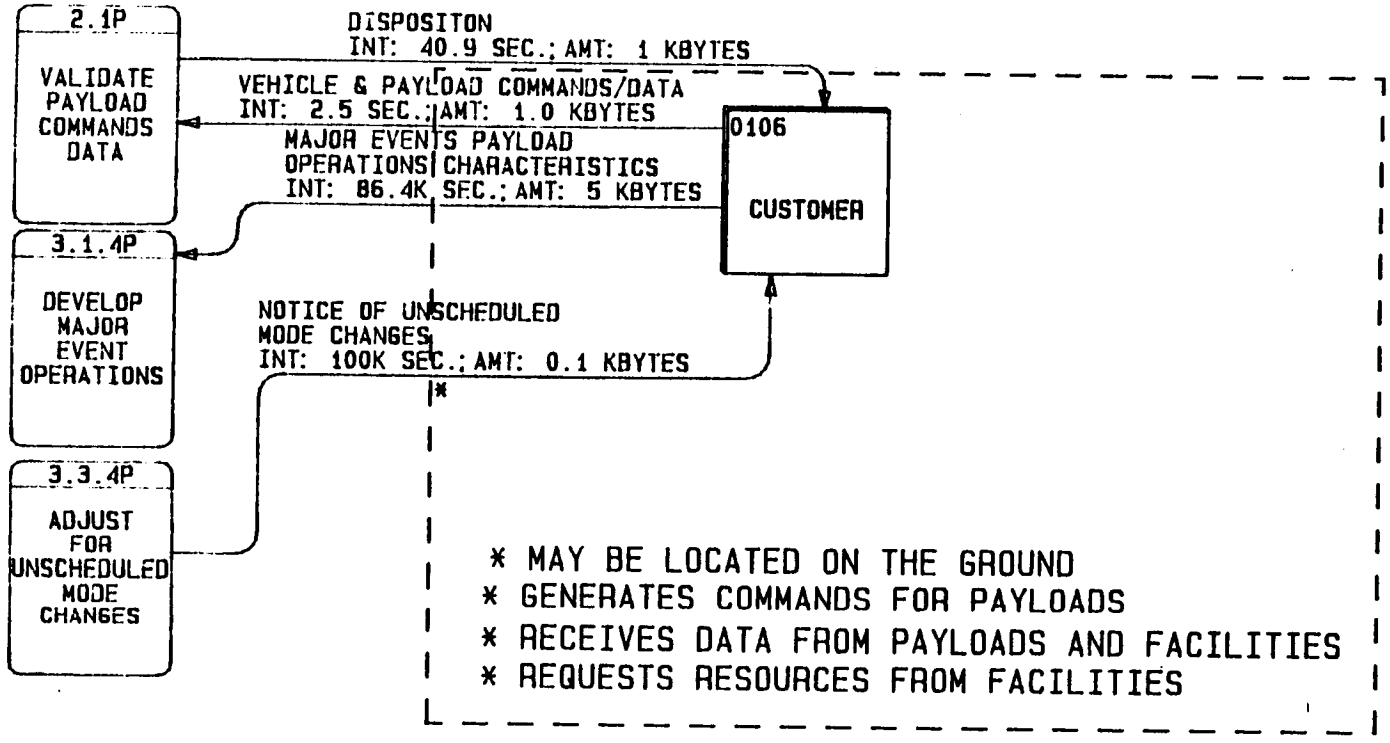
EXTERNAL INTERFACE: OPERATOR PART III



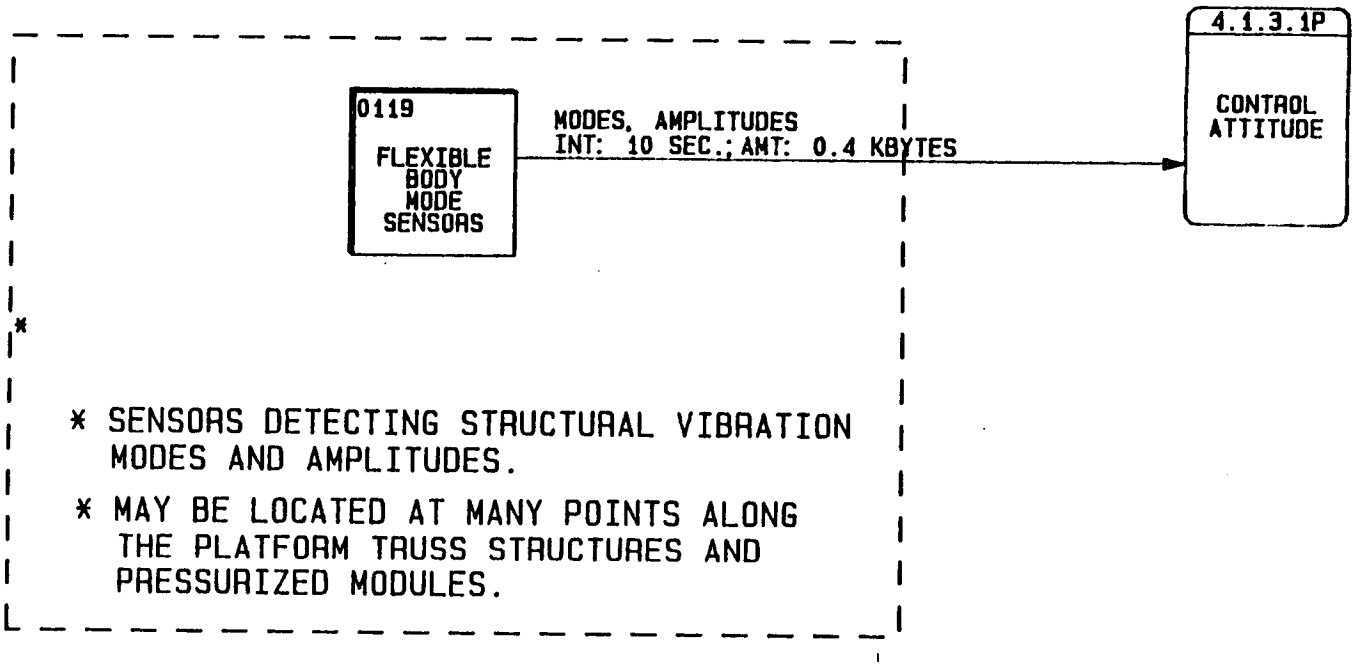
EXTERNAL INTERFACE: OPERATOR PART IV



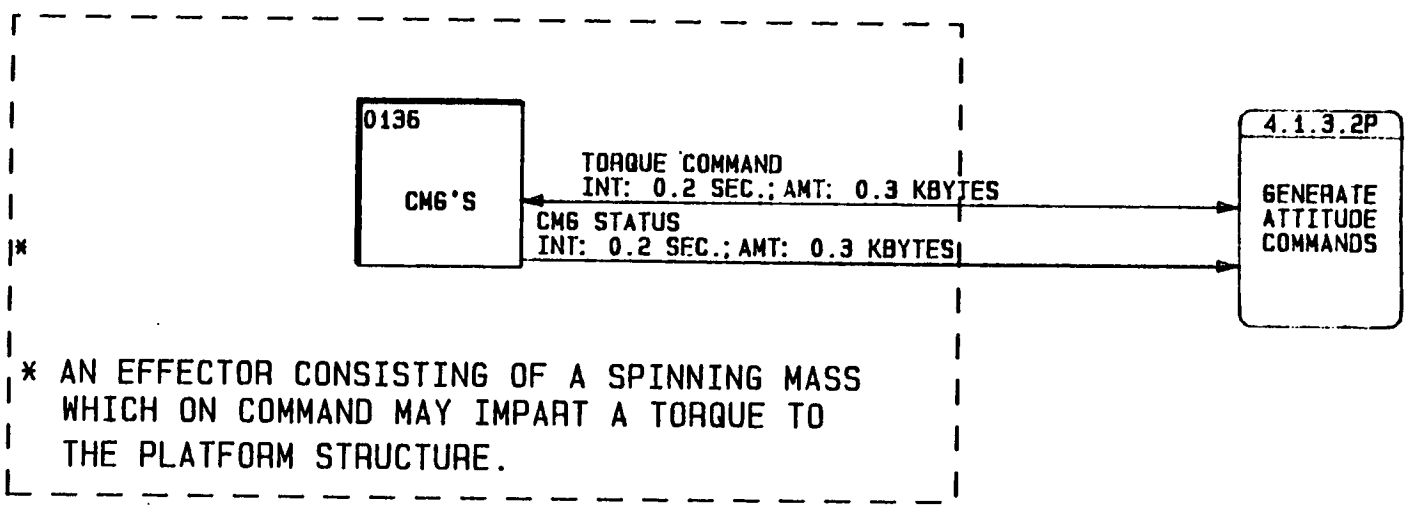
EXTERNAL INTERFACE: CUSTOMER PART I



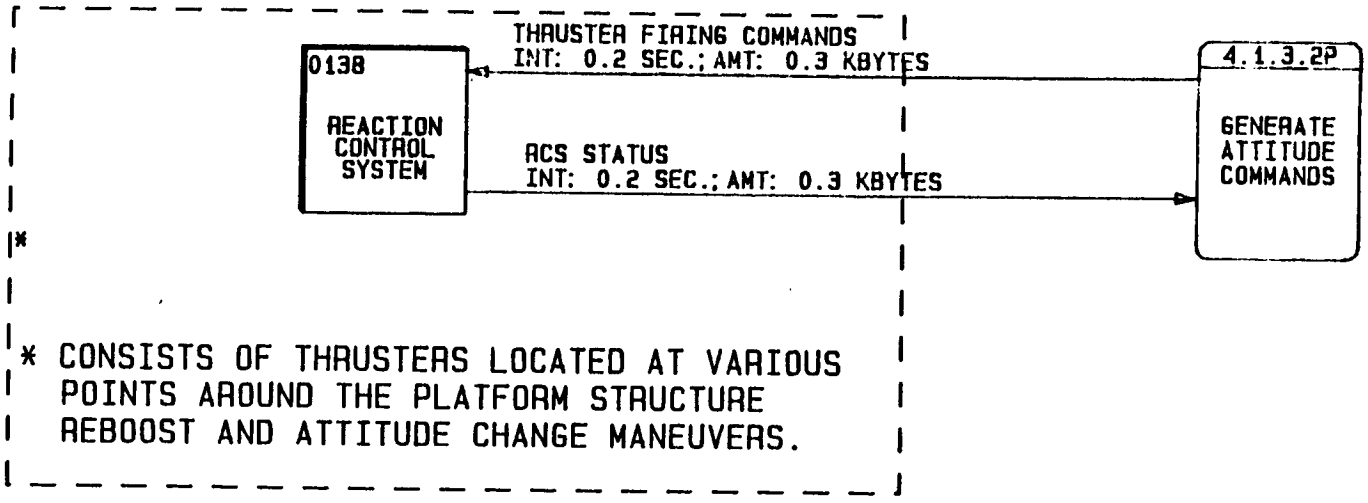
EXTERNAL INTERFACE: CUSTOMER PART II



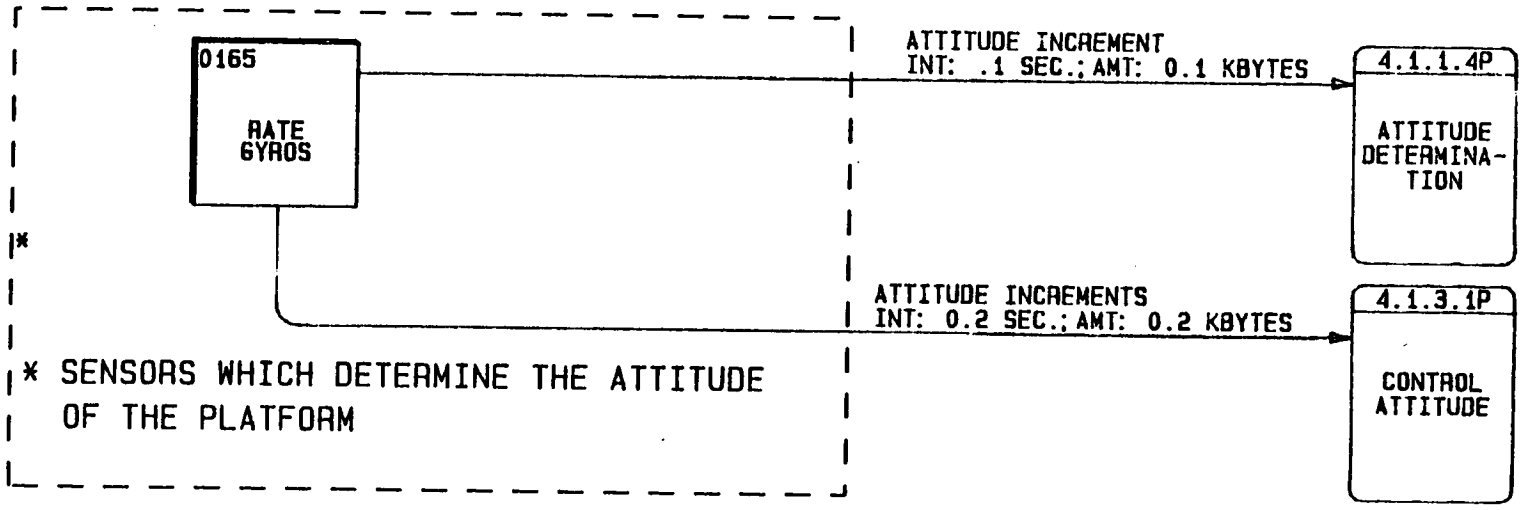
EXTERNAL INTERFACE: FLEXIBLE BODY MODE SENSORS



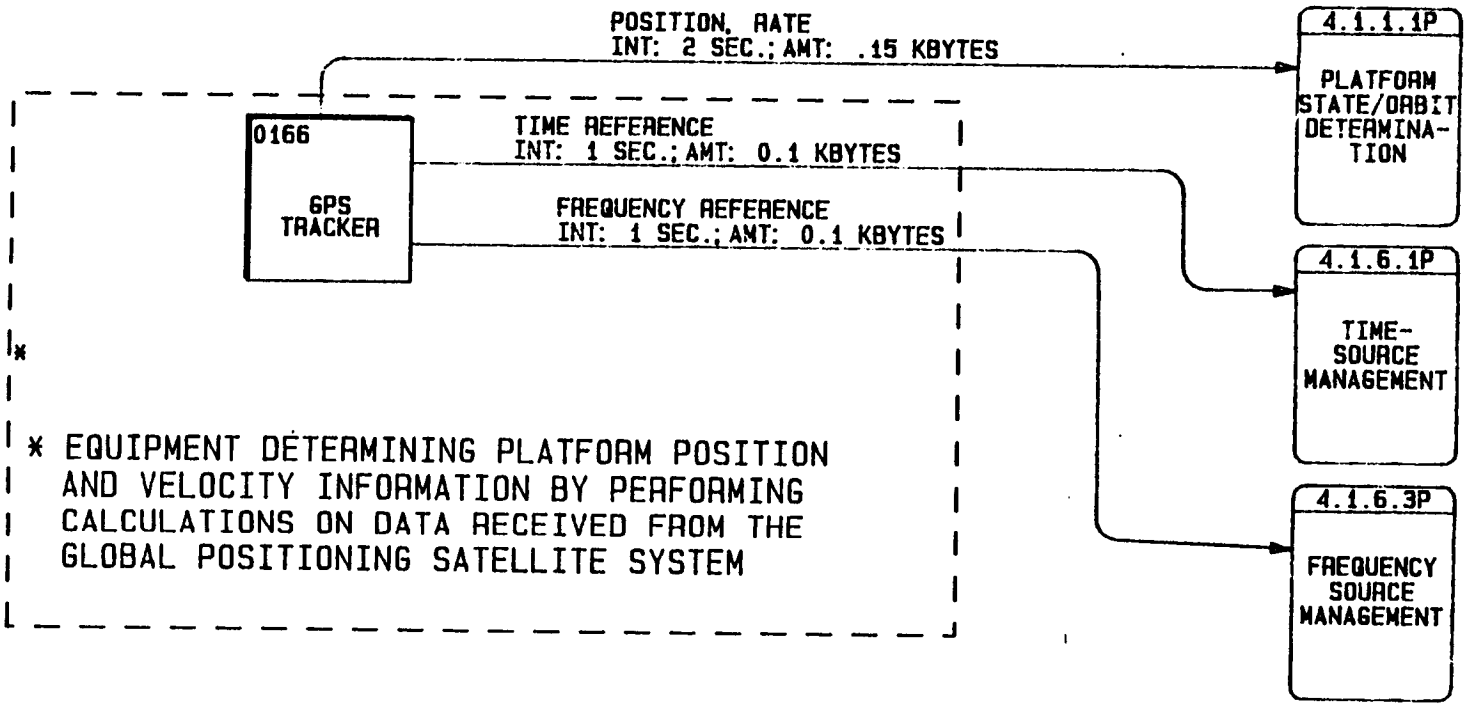
EXTERNAL INTERFACE: CONTROL MOMENT GYROS (CMG'S)



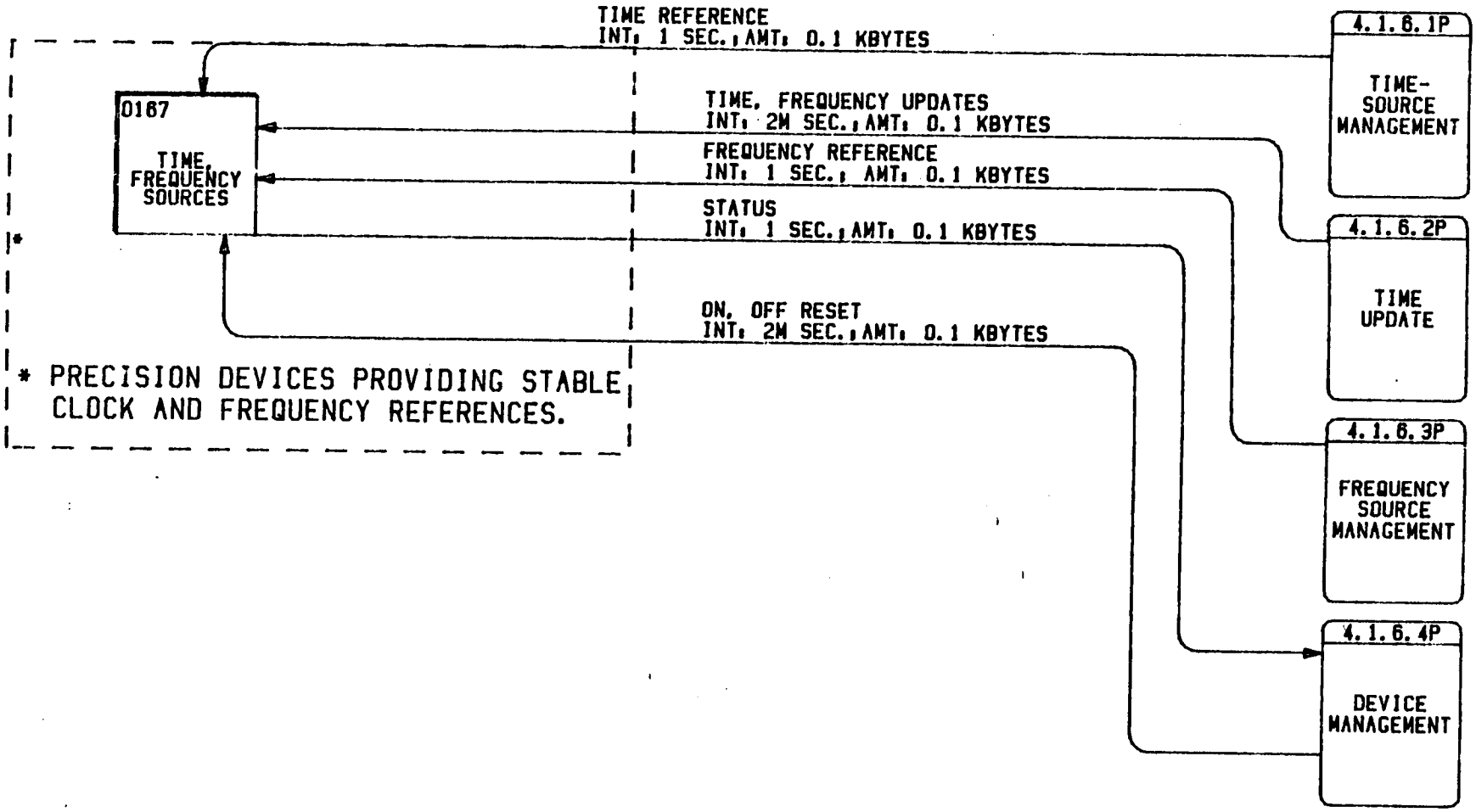
EXTERNAL INTERFACE: REACTION CONTROL SYSTEM



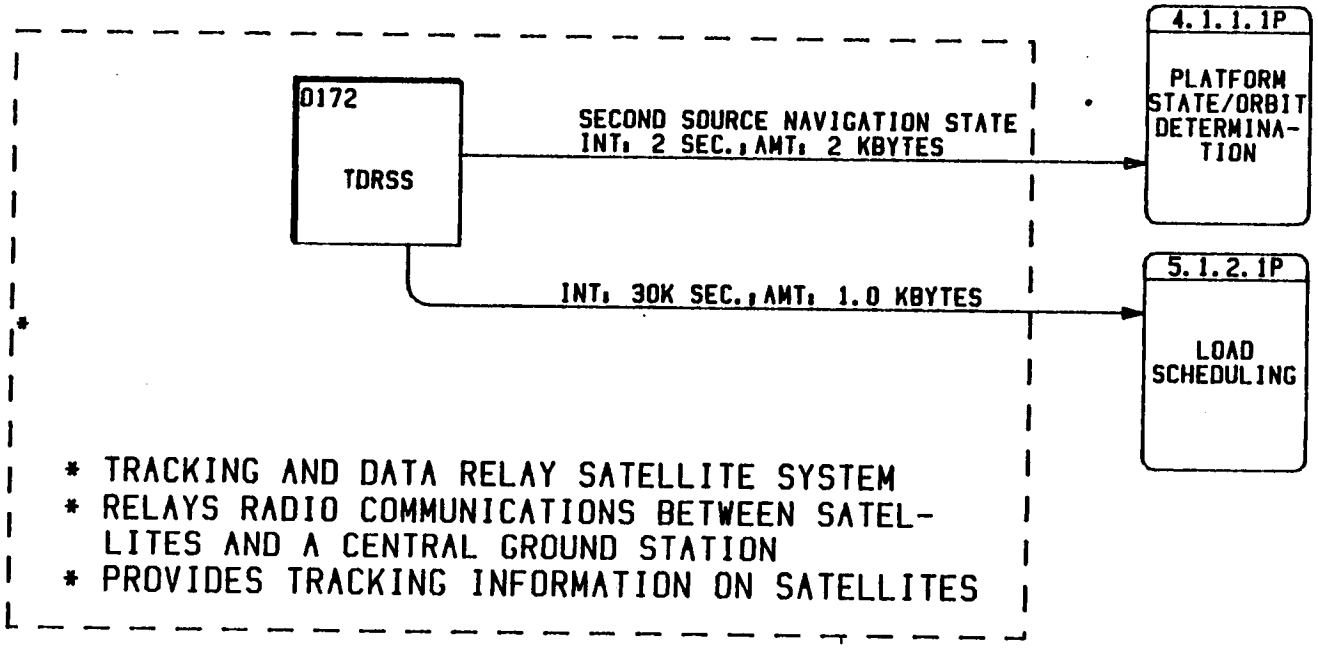
EXTERNAL INTERFACE: RATE GYROS



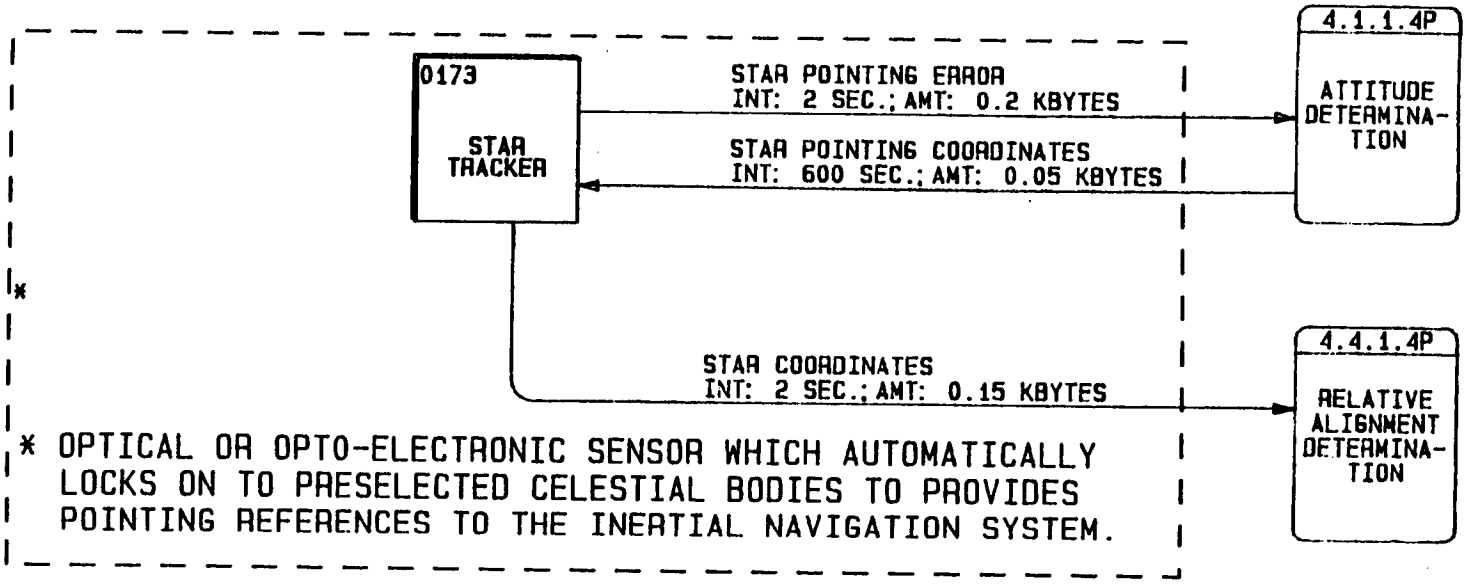
EXTERNAL INTERFACE: GPS TRACKER



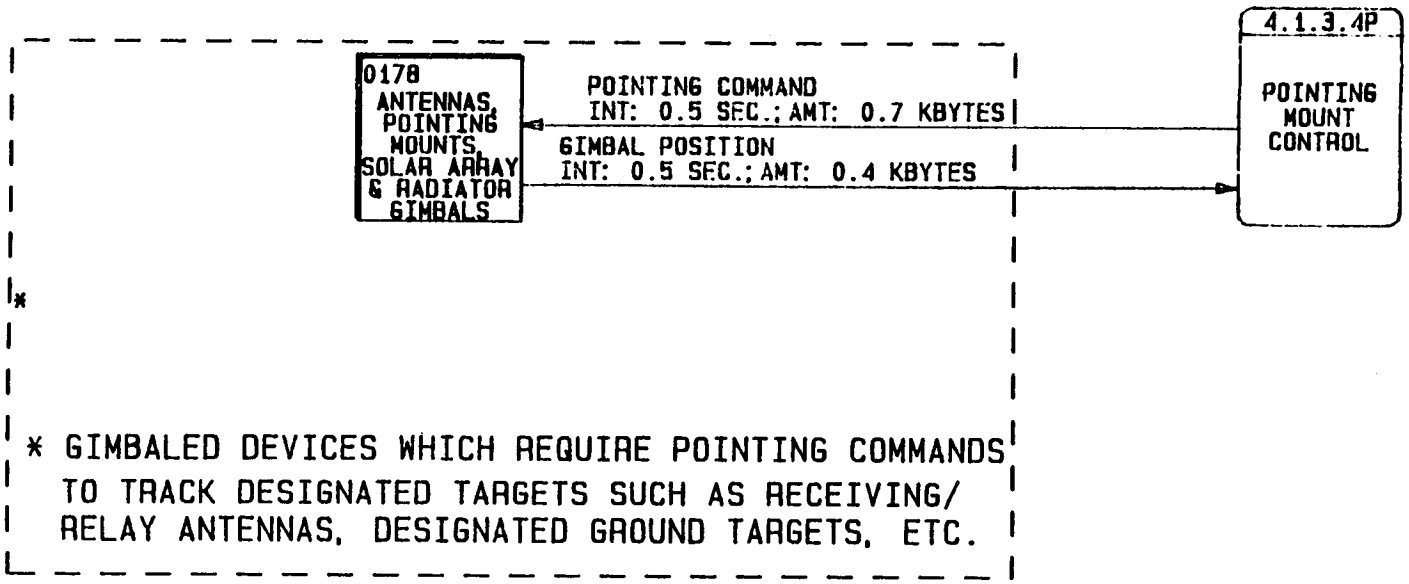
EXTERNAL INTERFACE: TIME, FREQUENCY SOURCES



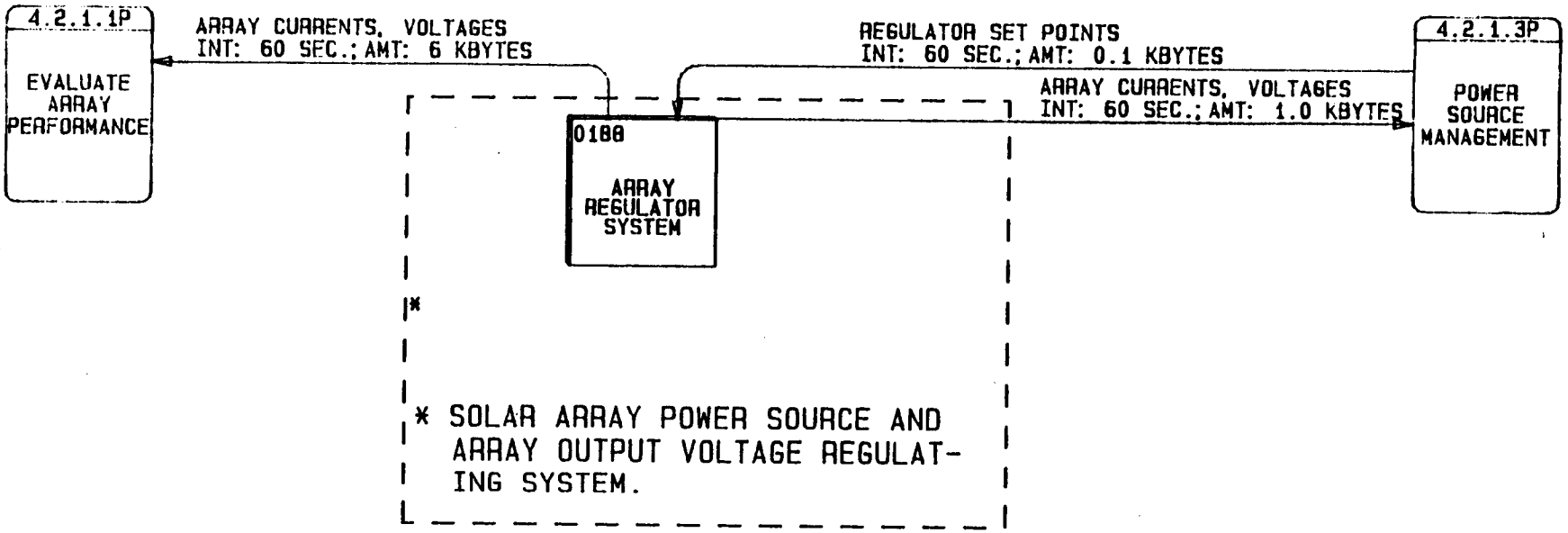
EXTERNAL INTERFACE: TDRSS



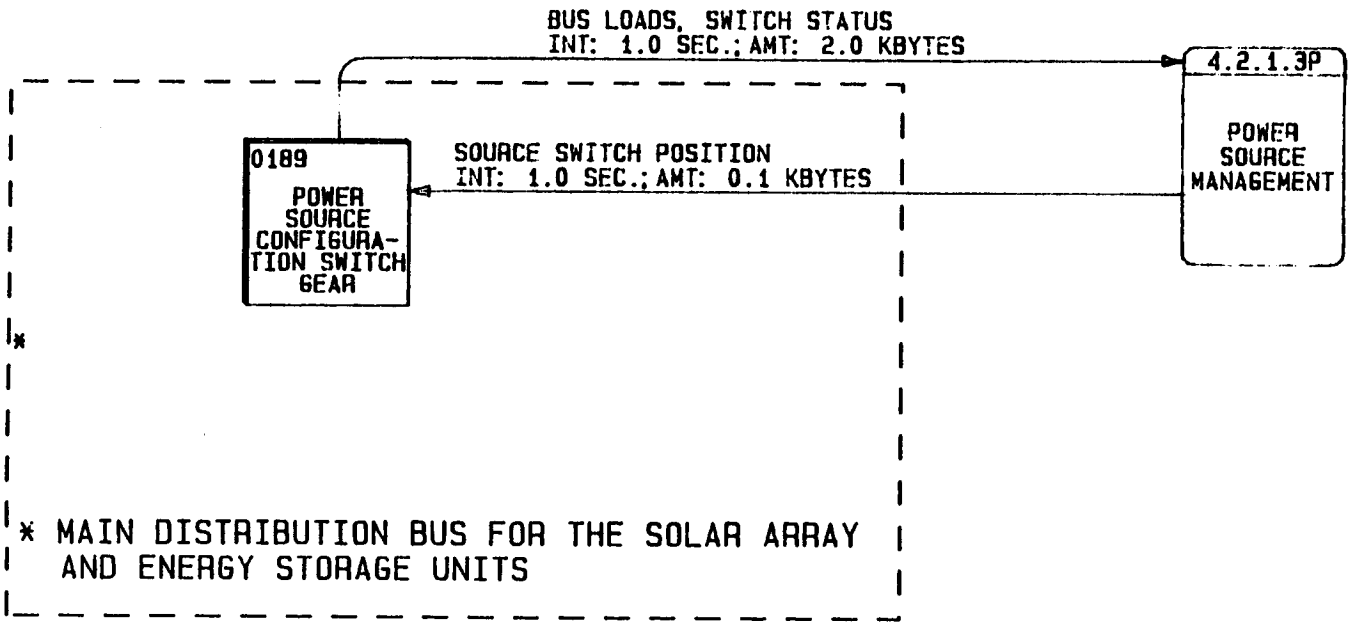
EXTERNAL INTERFACE: STAR TRACKER



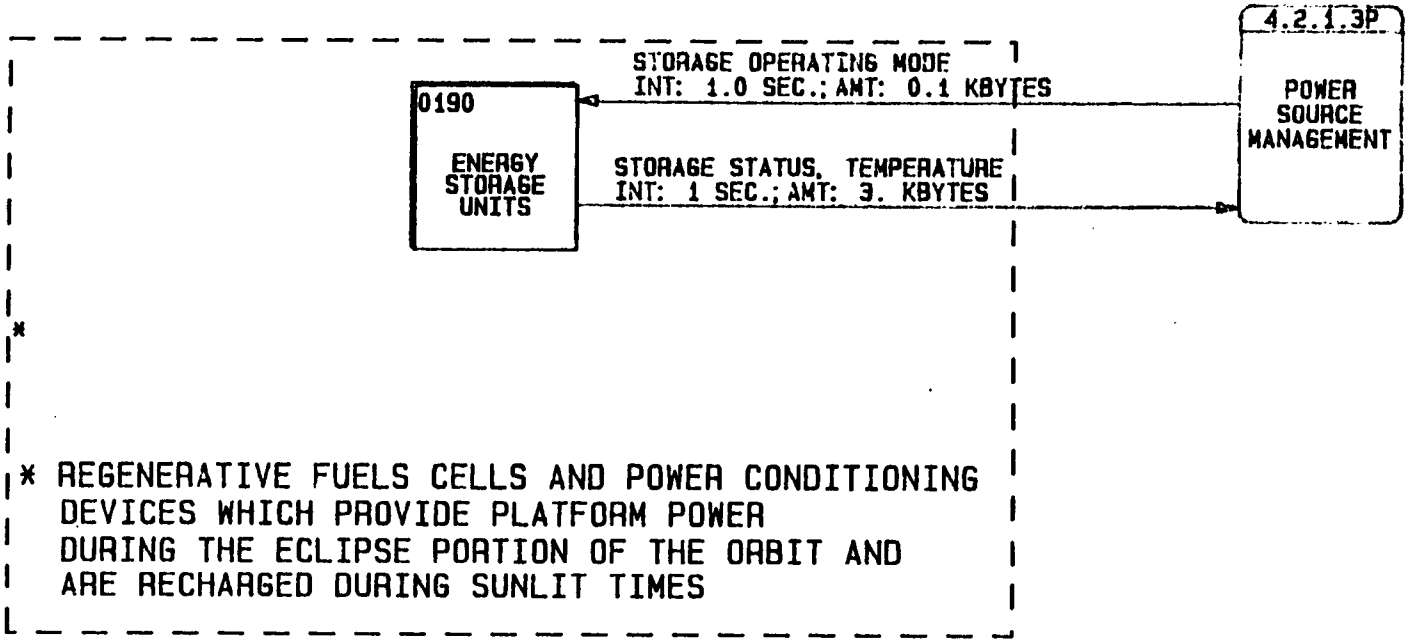
EXTERNAL INTERFACE: ANTENNAS, POINTING MOUNTS, SOLAR ARRAY AND RADIATOR GIMBALS



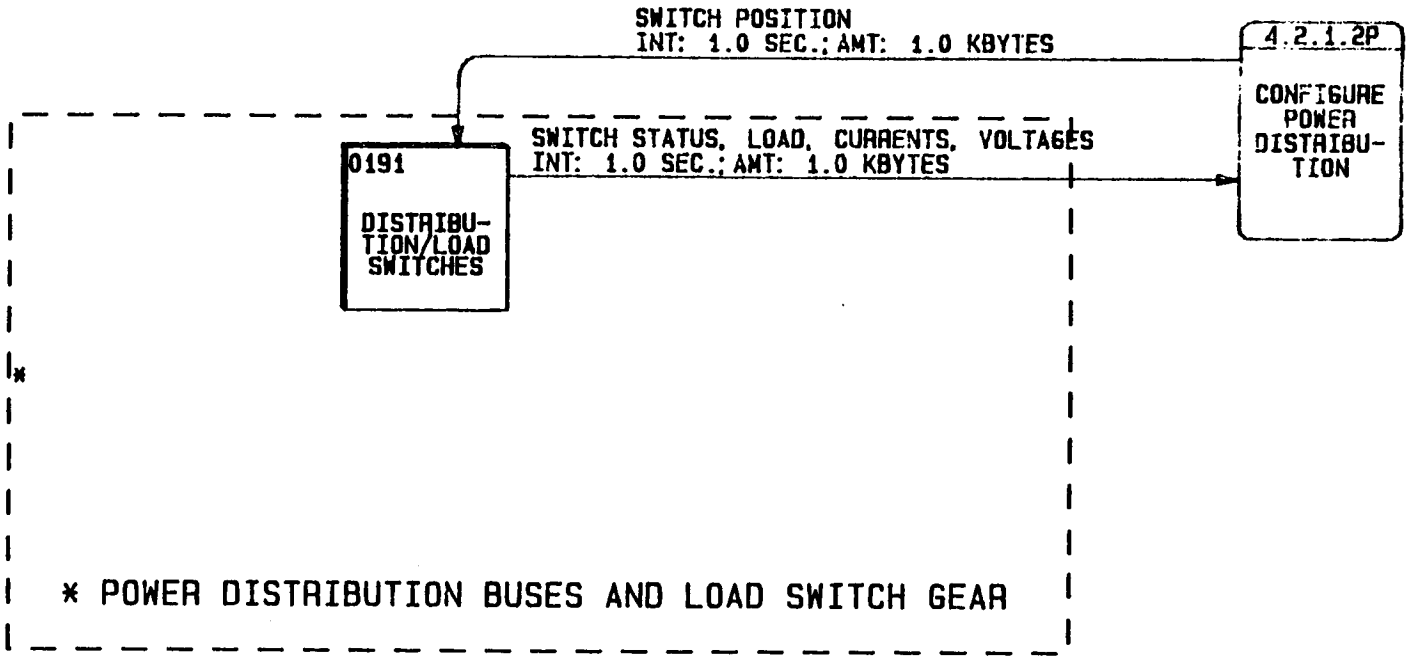
EXTERNAL INTERFACE: ARRAY REGULATOR SYSTEM



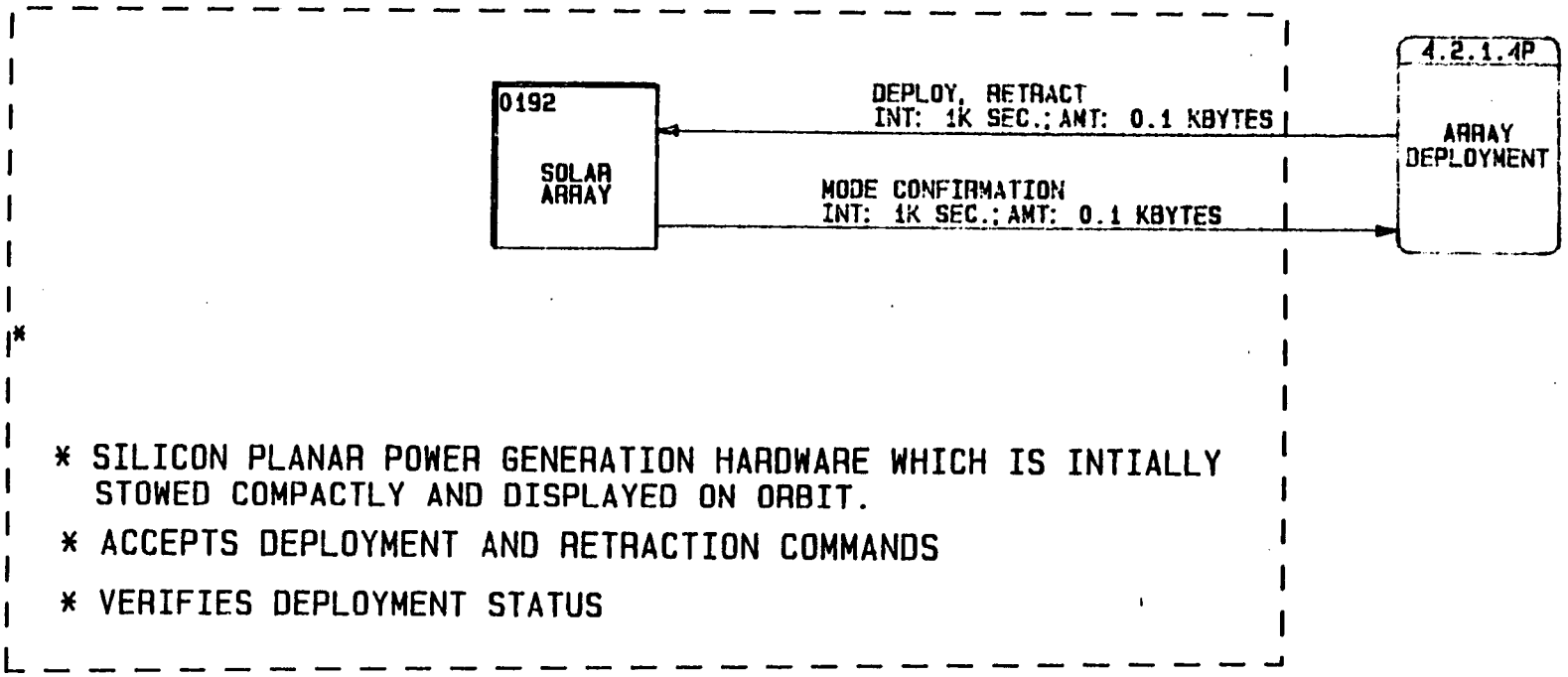
EXTERNAL INTERFACE: POWER SOURCE CONFIGURATION SWITCH GEAR



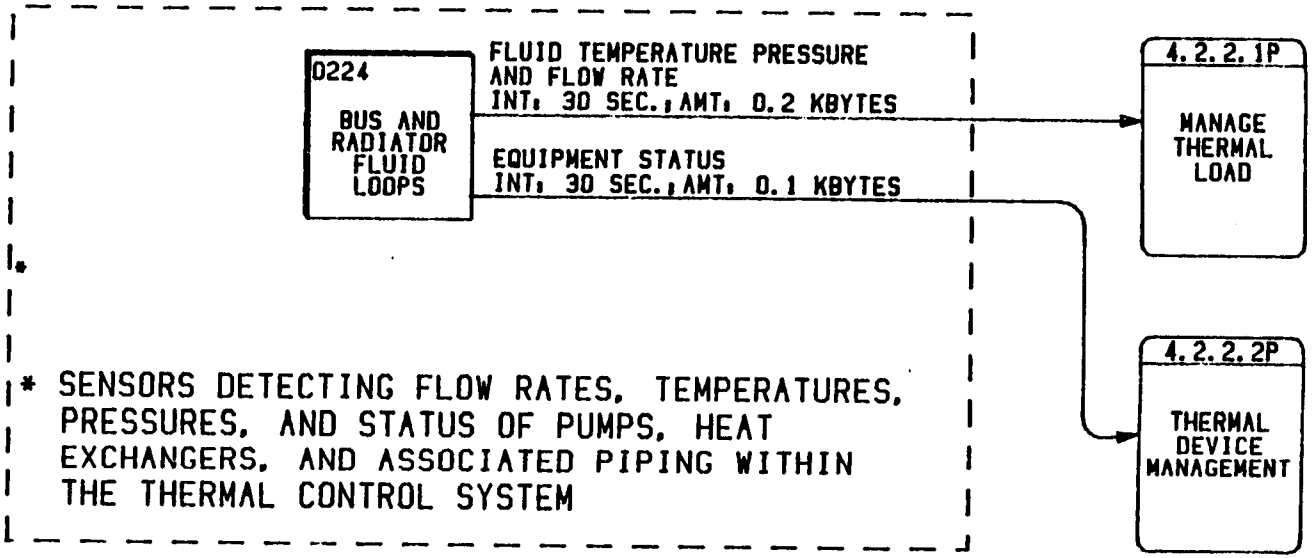
EXTERNAL INTERFACE: ENERGY STORAGE UNITS



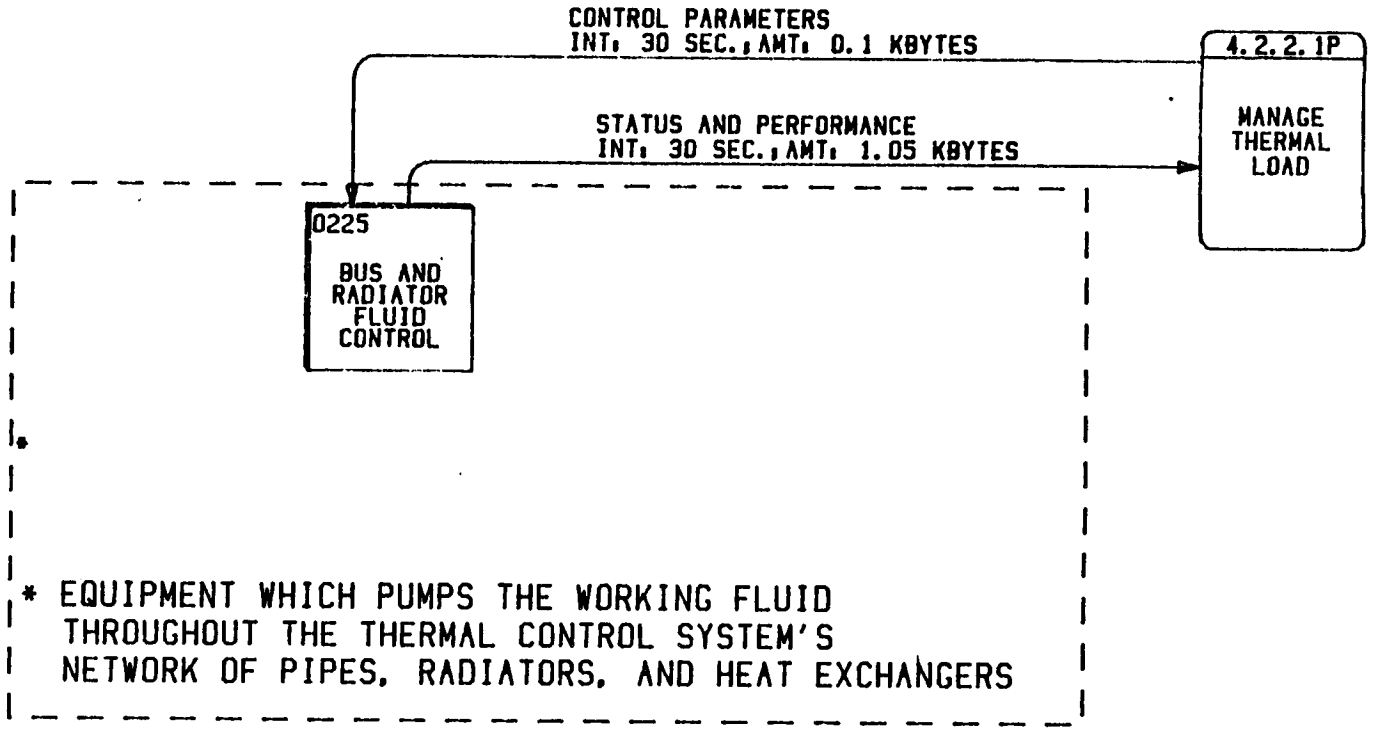
EXTERNAL INTERFACE: DISTRIBUTION/LOAD SWITCHES



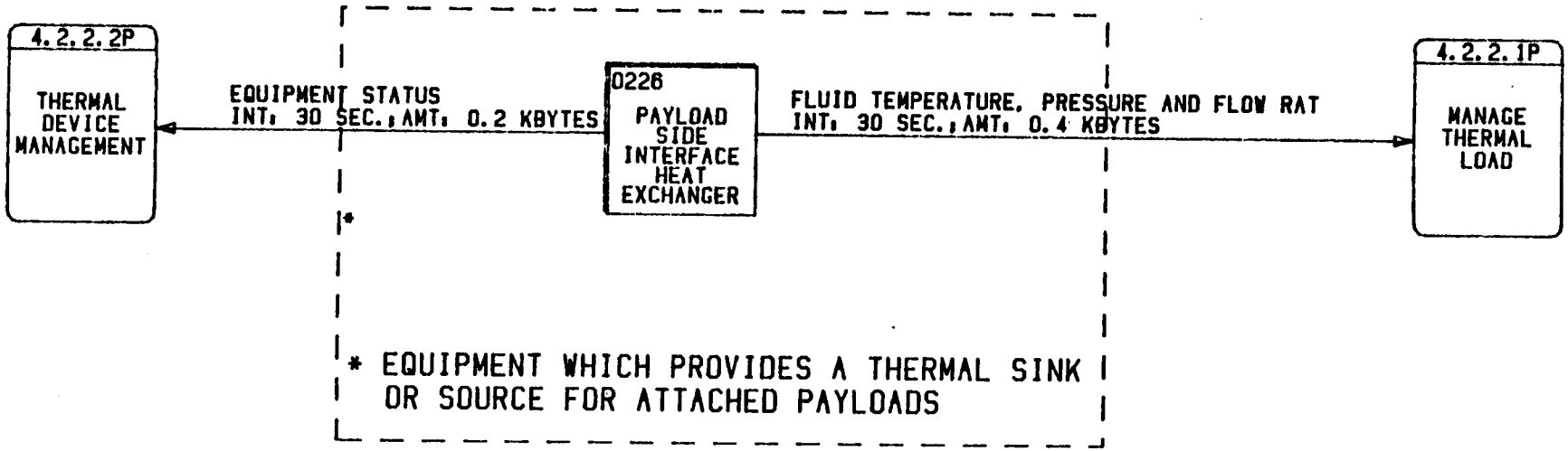
EXTERNAL INTERFACE: SOLAR ARRAY



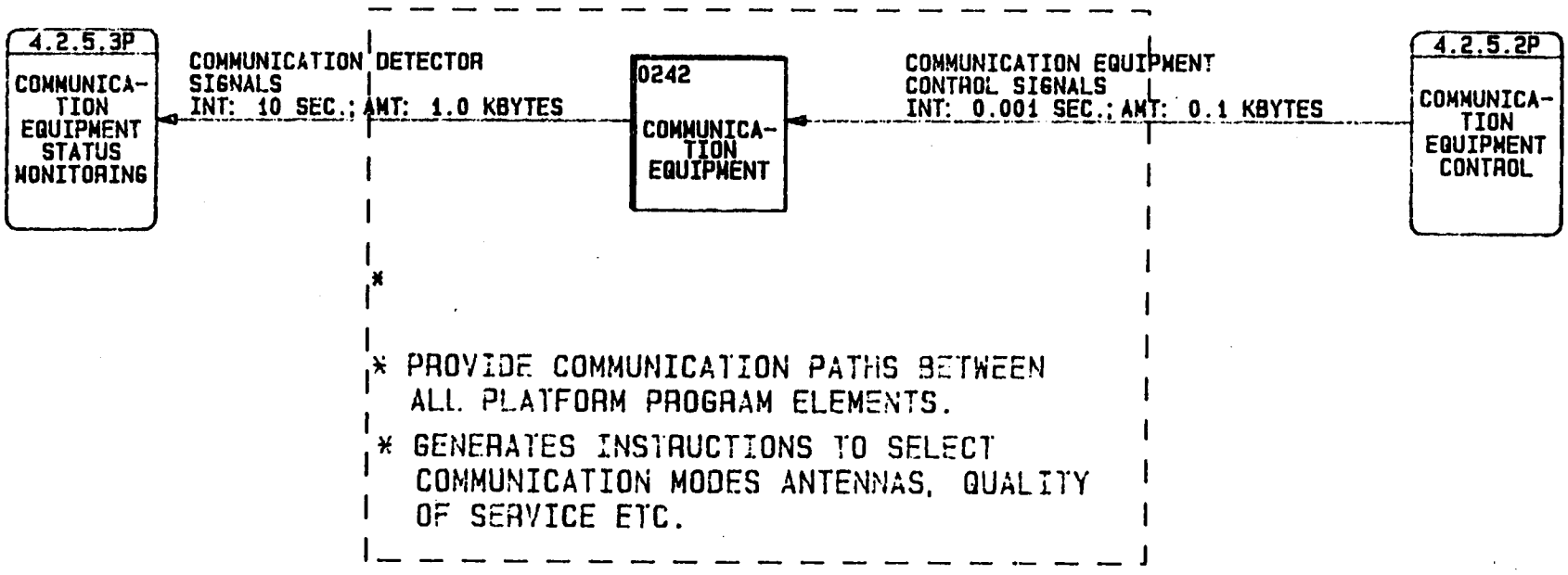
EXTERNAL INTERFACE: BUS AND RADIATOR FLUID LOOPS



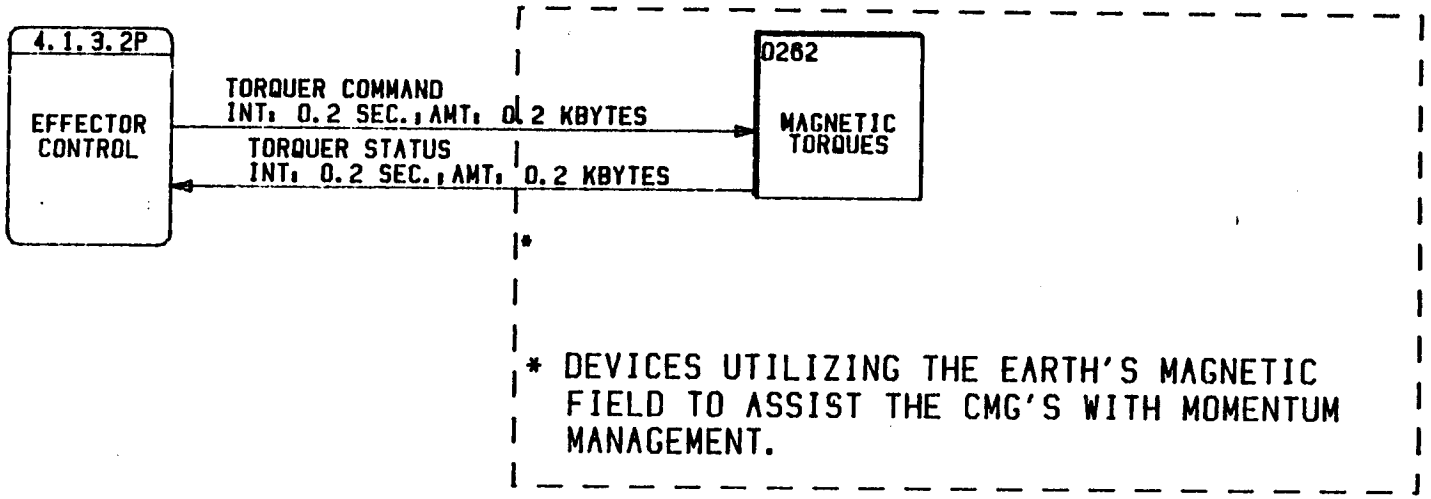
EXTERNAL INTERFACE: BUS AND RADIATOR FLUID CONTROL



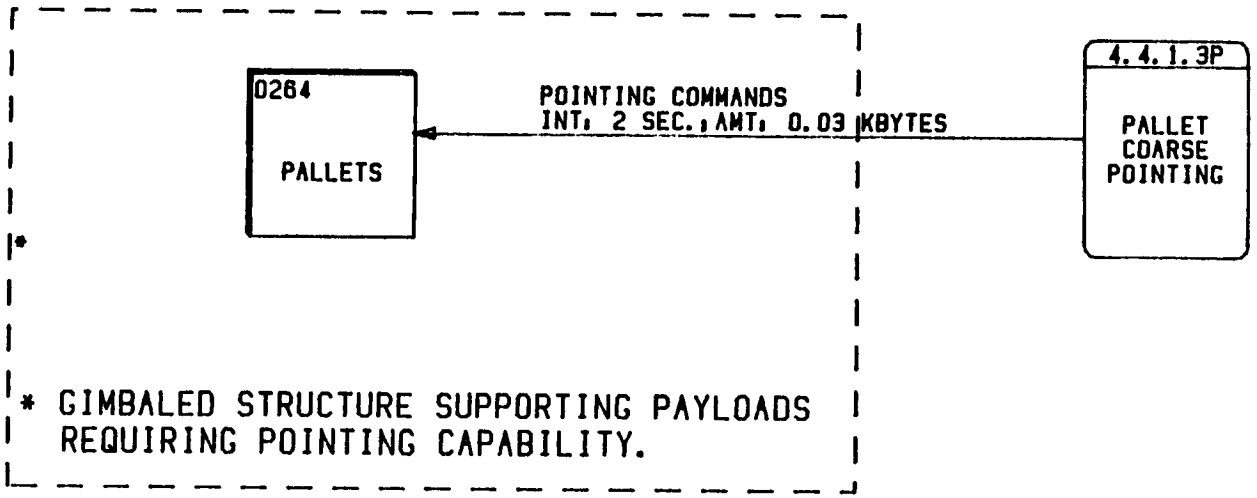
EXTERNAL INTERFACE: PAYLOAD SIDE INTERFACE HEAT EXCHANGER



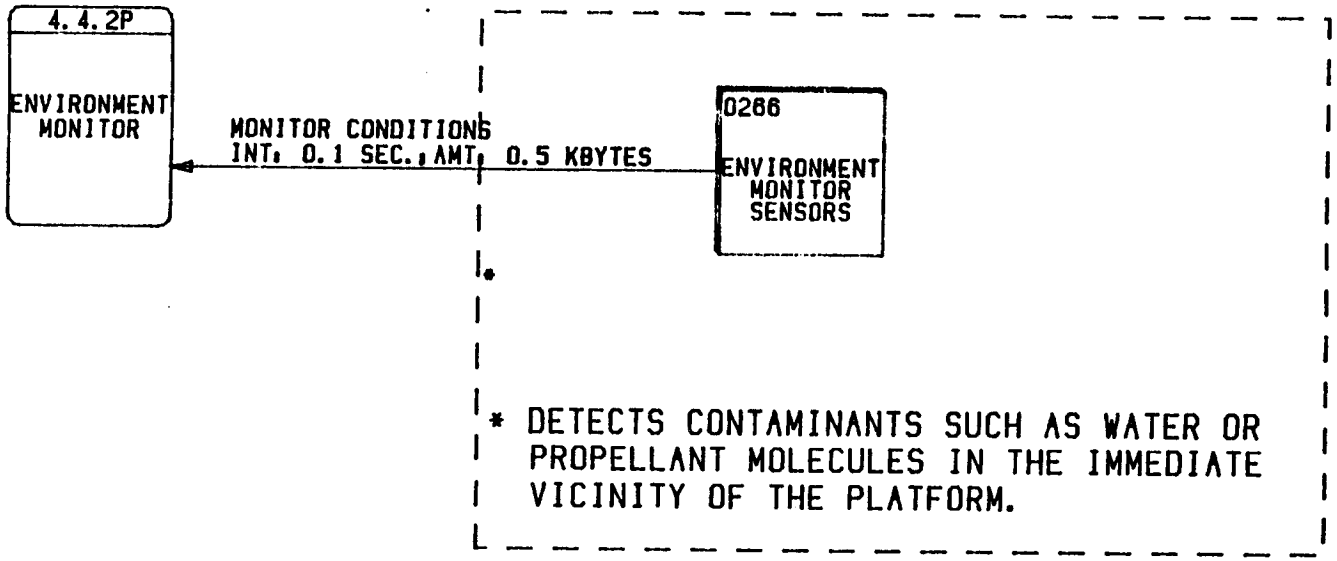
EXTERNAL INTERFACE: COMMUNICATION EQUIPMENT



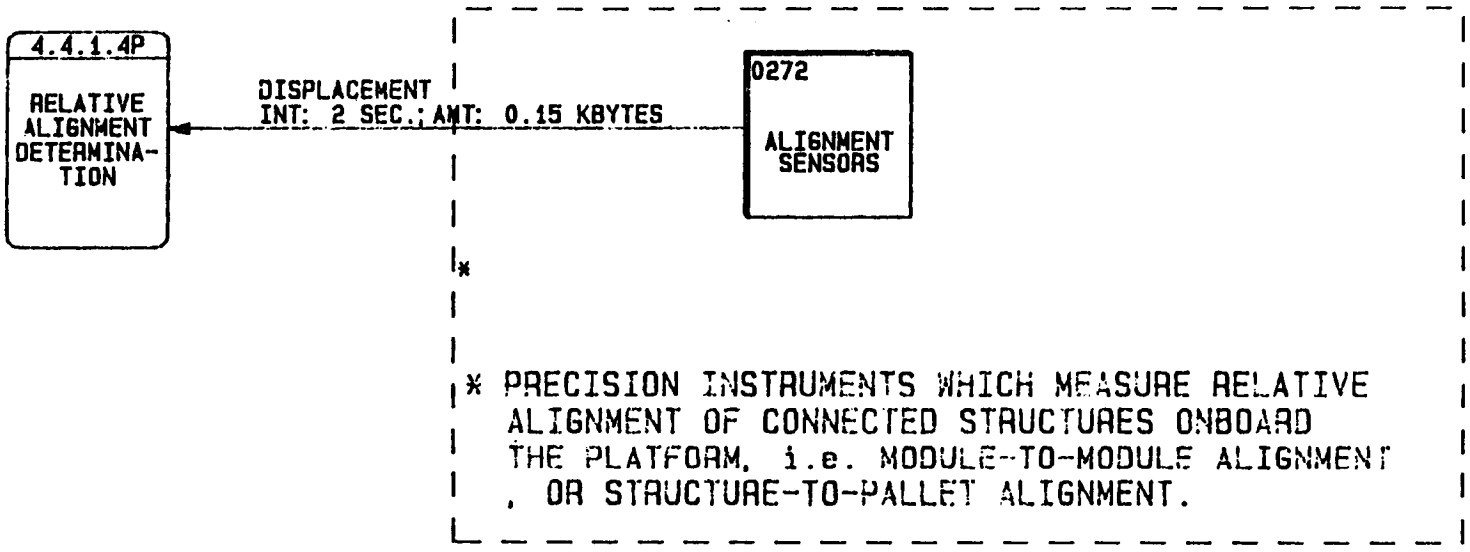
EXTERNAL INTERFACE: MAGNETIC TORQUERS



EXTERNAL INTERFACE: PALLET



EXTERNAL INTERFACE: ENVIRONMENT MONITOR SENSORS



EXTERNAL INTERFACE: ALIGNMENT SENSORS

APPENDIX D

DATA FLOW DIAGRAMS

Appendix D

Data Flow Diagrams

Data flow diagrams have been developed to show the relationship among functions in the SSDS functions list. These diagrams show the logical design of the system without concern for the physical design.

The data flow diagram conventions used in Structural Systems Analysis were explained briefly in the task 1 report. That explanation is repeated here for the convenience of the reader.

Structured Systems Analysis (SSA) has been used extensively throughout the SSDS study to develop the logical operation of the system. Data flow diagrams are used to provide a graphic presentation of the results of SSA, and to show the overall working of the system being analyzed. There are four conventions used in data flow diagrams, as illustrated in Figure D-1.

- External agencies enter data into the system and receive data from the system. They do not otherwise interact with the system. External agencies are designated by squares with a double line at the top and left. For simplicity of the diagram, an external agency may be duplicated on the diagram. A diagonal line across the bottom right corner indicates a duplication.

- Processes transform flows of data, usually in some fundamental way that alters its form and content. A process is designated by a rounded corner rectangle. A process enclosed by a dashed line represents an interconnection to another data flow diagram. The enclosed function is on another branch of the functions tree. It appears on another data flow diagram with its complete logical interconnections.

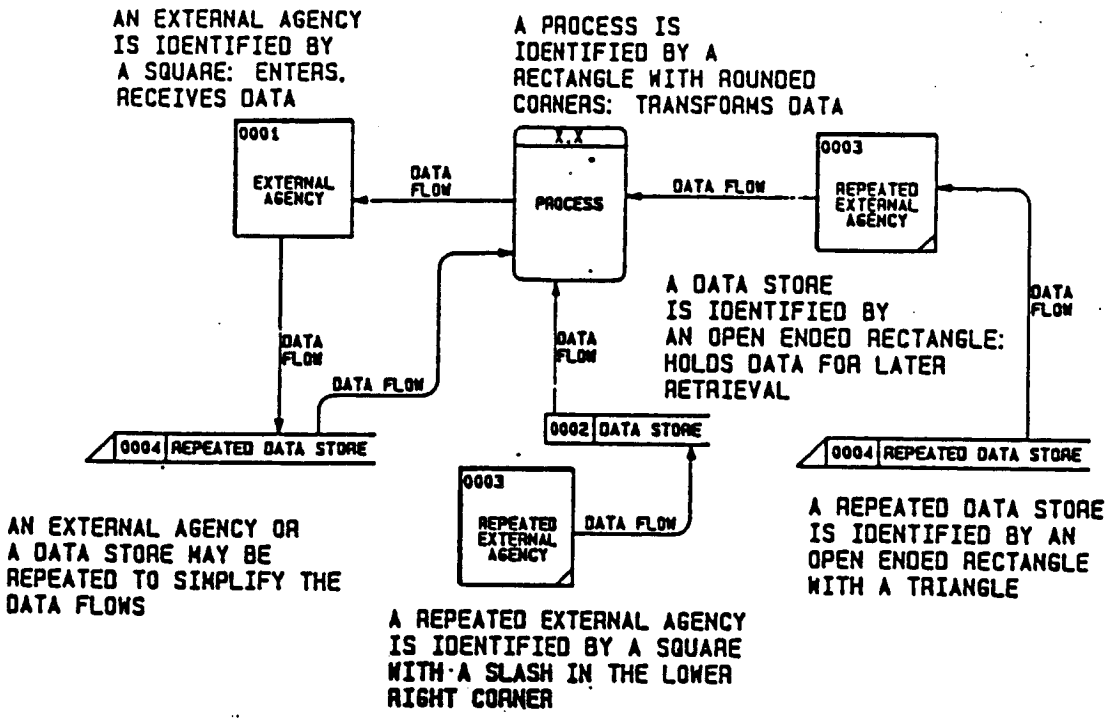


Figure D-1. DFD Symbol Conventions

- Data Stores contain data to be made available to other processes when the processes do not necessarily take place in immediate sequence. Therefore, the data in a data store should have a significant lifetime. Data stores are designated by extended, open sided rectangles. Data stores may also be duplicated to simplify the diagram.

- Data Flows identify the data moving among processes, data stores and external agencies. The data flows are designated by labeled arrows.

Structured systems analysis is used to develop multiple levels of detail to describe what the system does. The top level (Level 0 DFD) shows the entire system in its simplest form. The level 0 analysis concentrates on the end-to-end paths connecting external agencies. It becomes an outwardly focused description, focusing on the questions, "Who will be using the system?", "What do they want the system to do?", and "What are the major data input to the system?" The processes depicted are very top level and generic. Subsequent levels of DFDs will add progressively more detail.

The data flow diagrams contained in this appendix are the complete set describing the SSDS. The diagrams are hierarchial in order.

- The level zero diagram depicts the entire system at the topmost level.

- Level one diagrams expand the detail for each of the seven top level functions.

- Level two diagrams provide further detail on subfunctions. In general, there is a level two diagram for each two-digit function in the functions list (e.g., 4.2) having further subdivisions. The two exceptions are functions 2.3, for which the next lower level diagram is trivial, and 5.1, for which there is little functional interconnection.

- Level three diagrams provide further detail for those functions having four digit subdivisions, such as 4.1.1 Navigation.

With the above noted exceptions, each functions in the functions list appear on a data flow diagram.

The data dictionary entries in Appendix E present supporting data to aid in interpreting the data flow diagrams. Input/output rates are shown in Appendix A-9 of the task 1 report.

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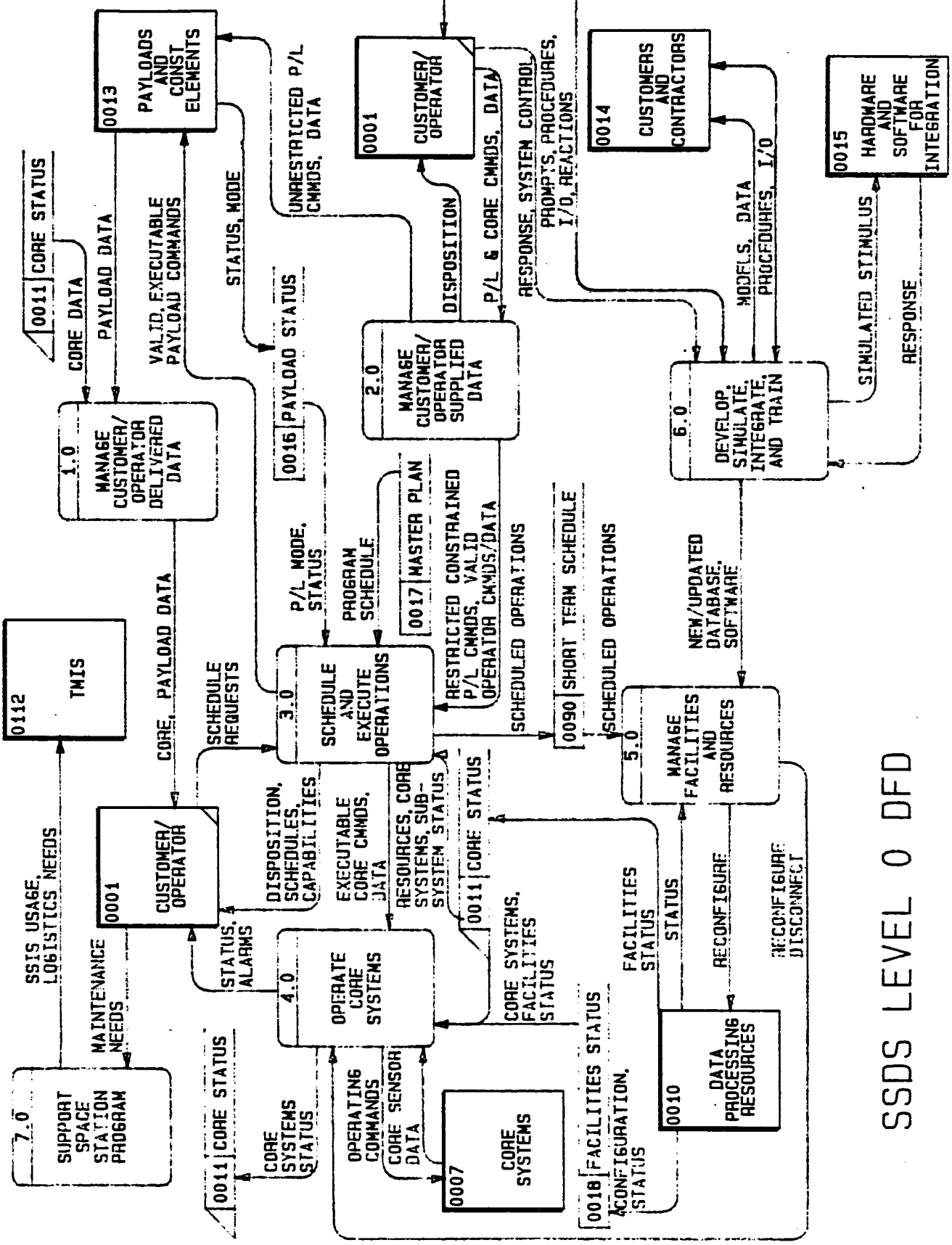
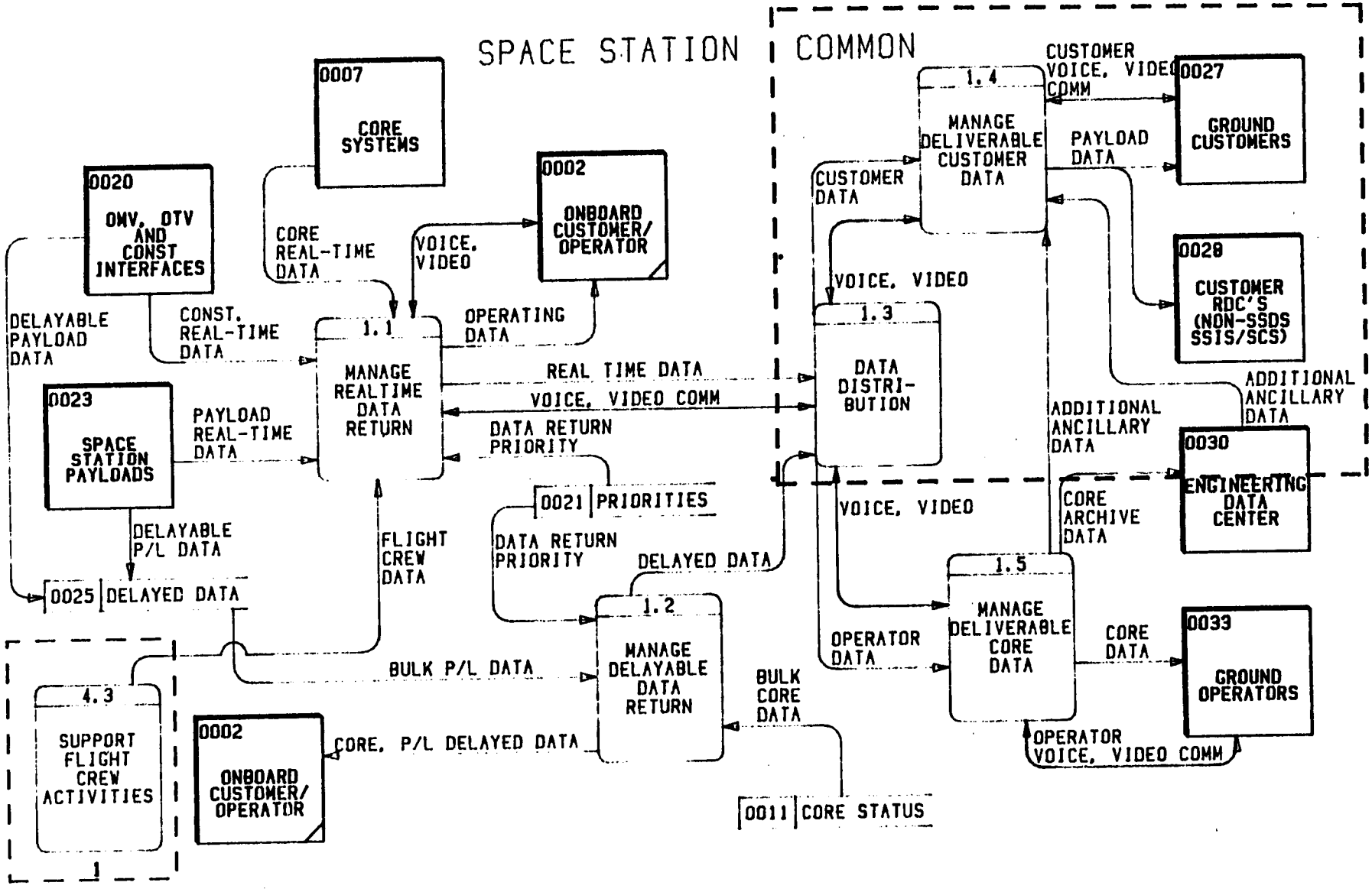
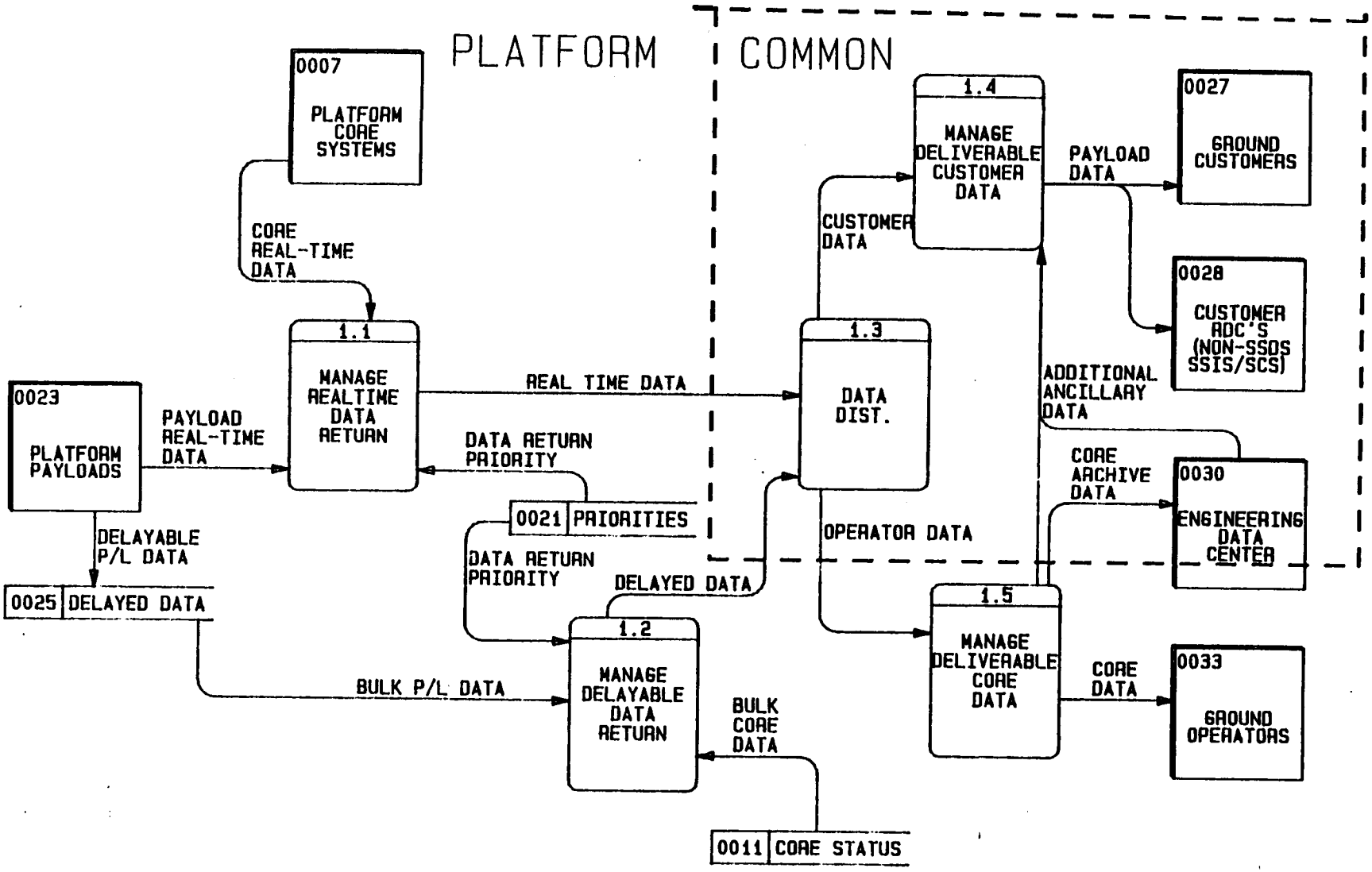


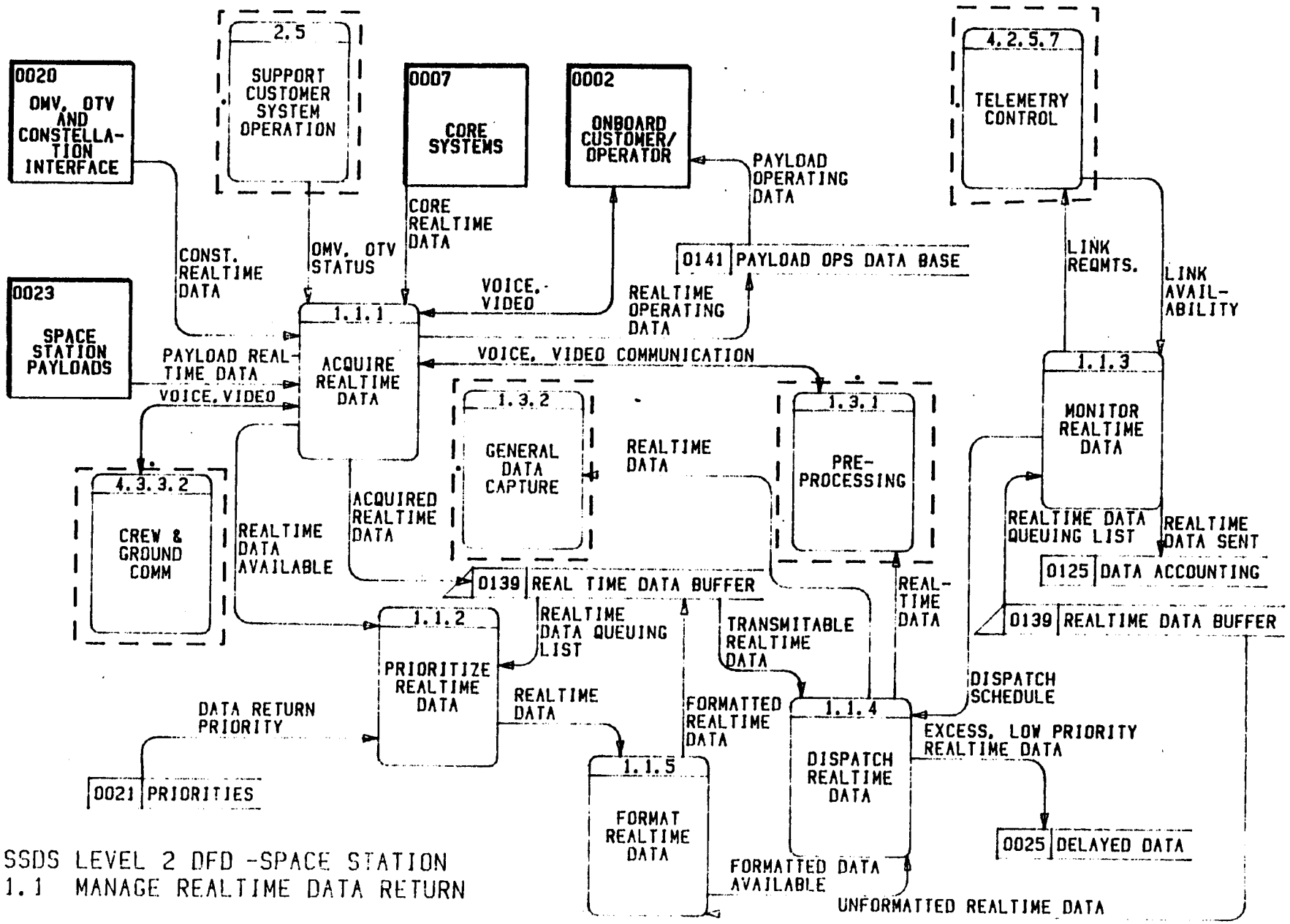
SSDS LEVEL 0 DFD



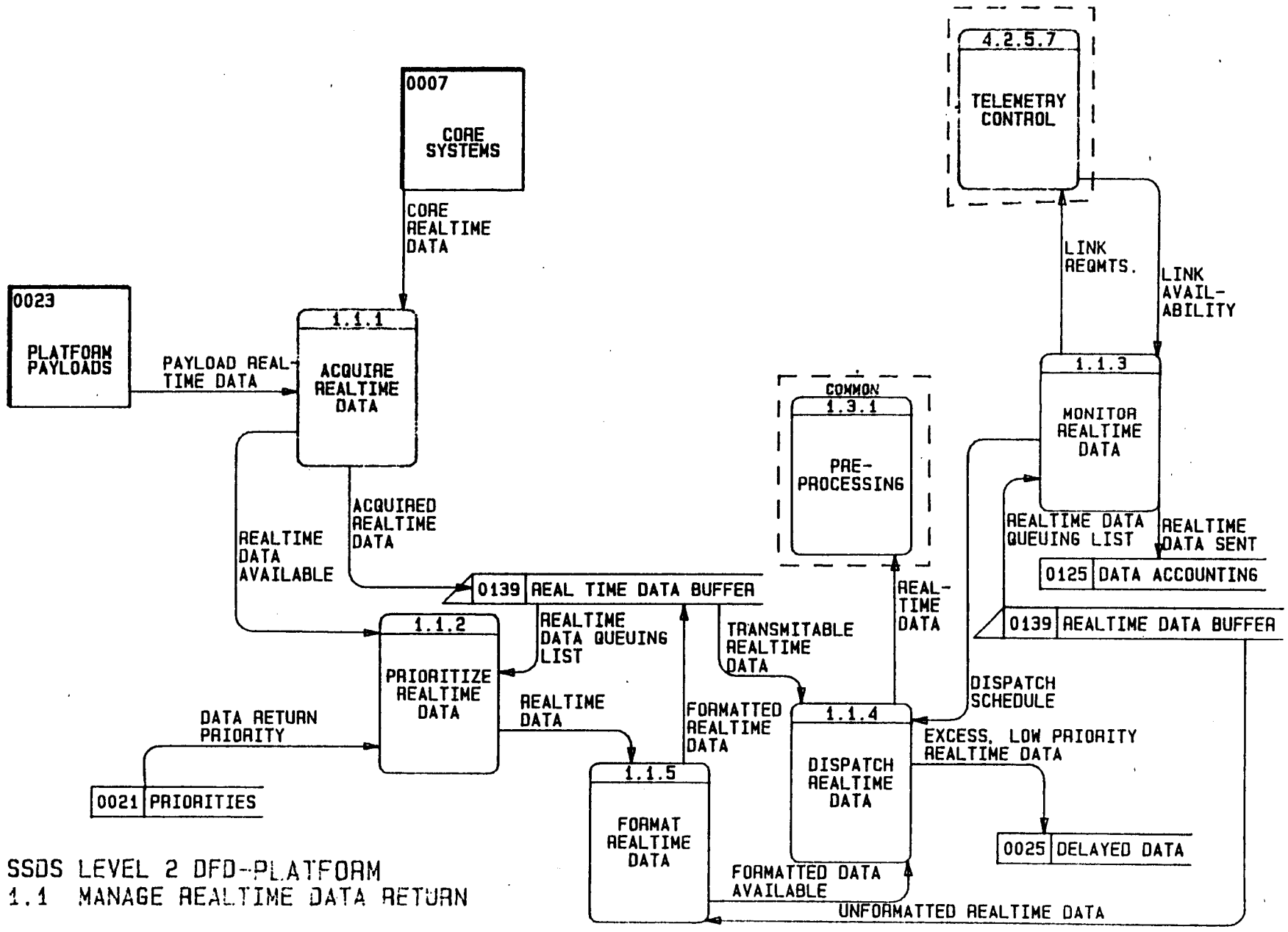
SSDS LEVEL 1 DFD-SPACE STATION
1.0 MANAGE CUSTOMER/OPERATOR DELIVERED DATA



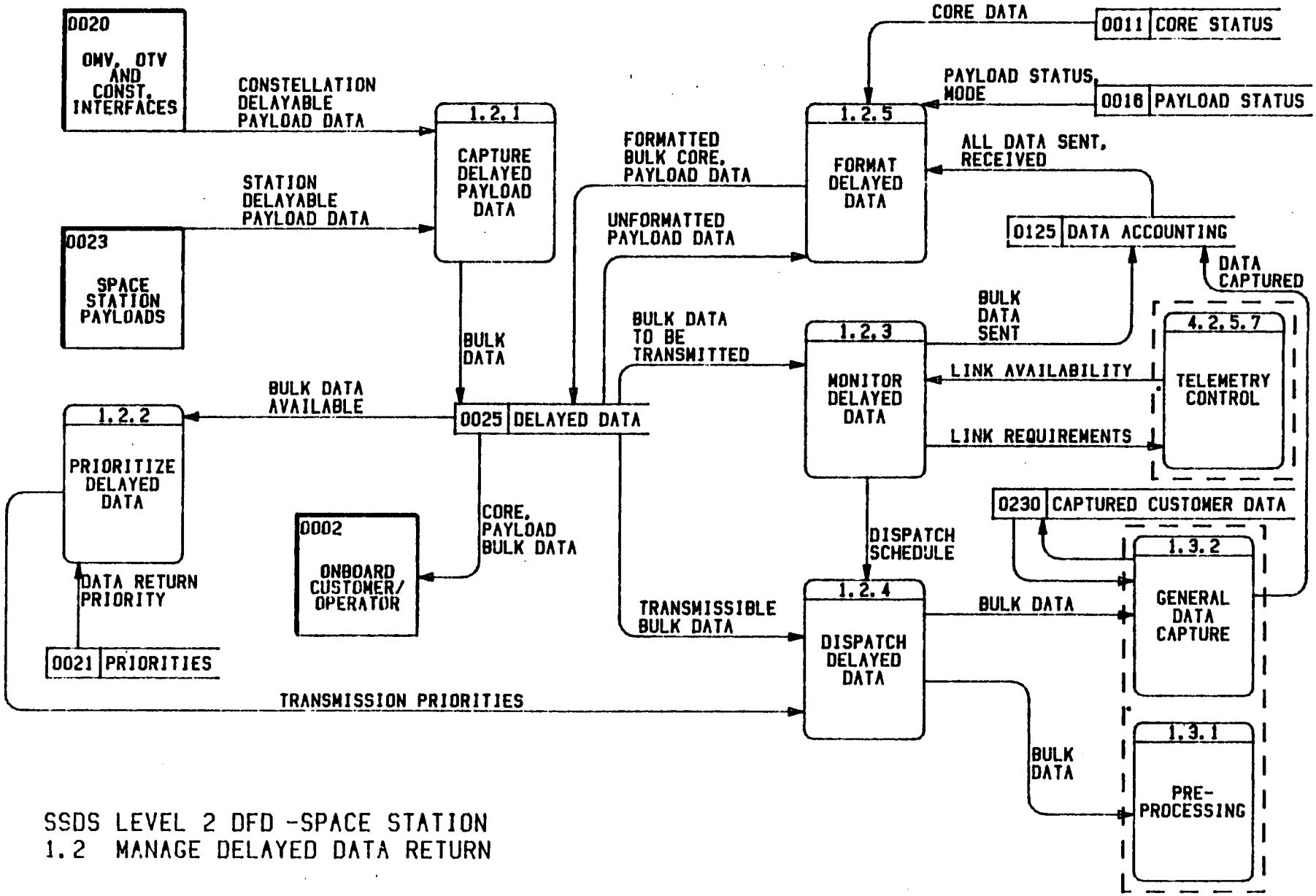
SSDS LEVEL 1 DFD-PLATFORMS
1.0 MANAGE CUSTOMER/OPERATOR DELIVERED DATA
FIGURE 6-9



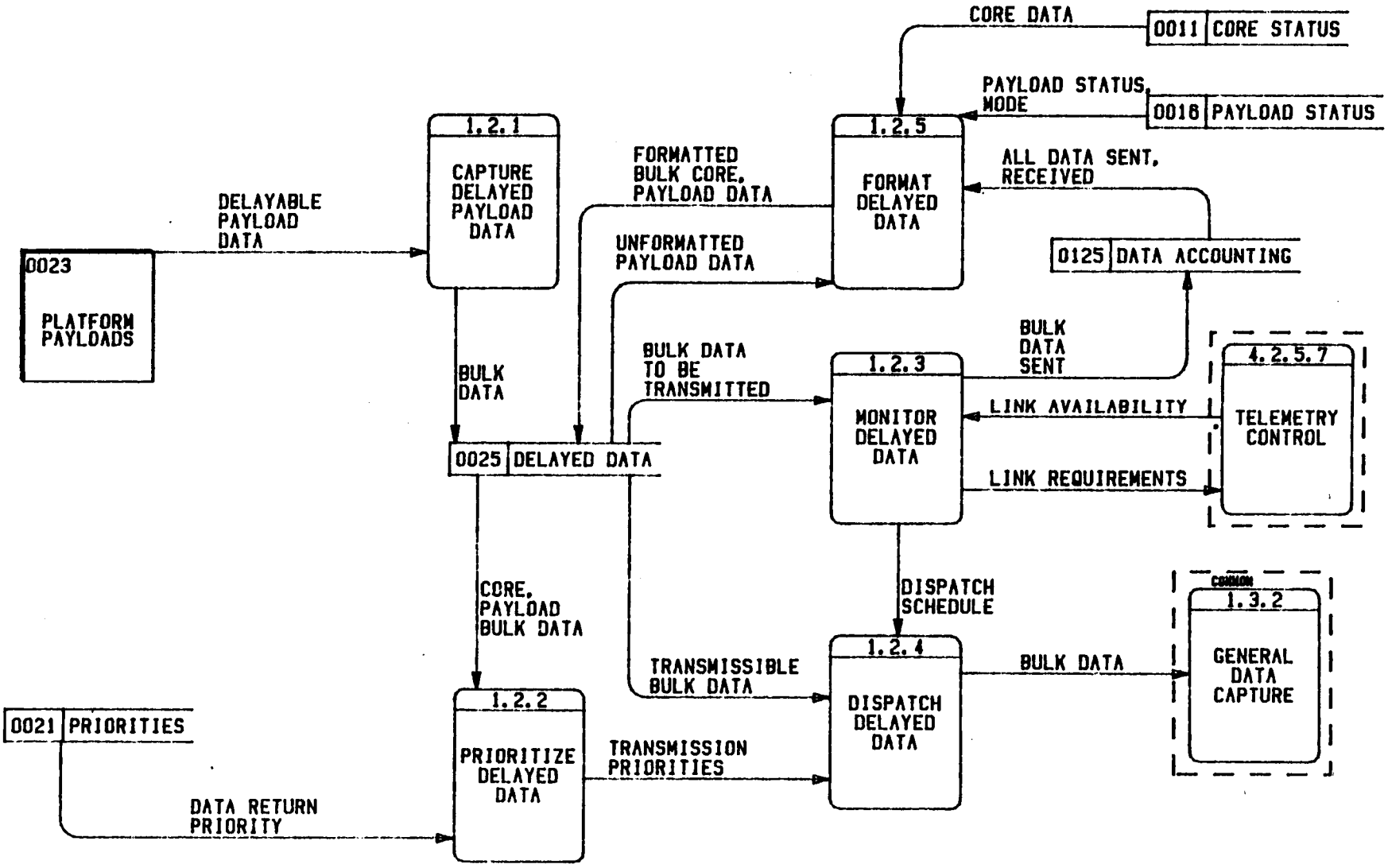
SSDS LEVEL 2 DFD -SPACE STATION
1.1 MANAGE REALTIME DATA RETURN



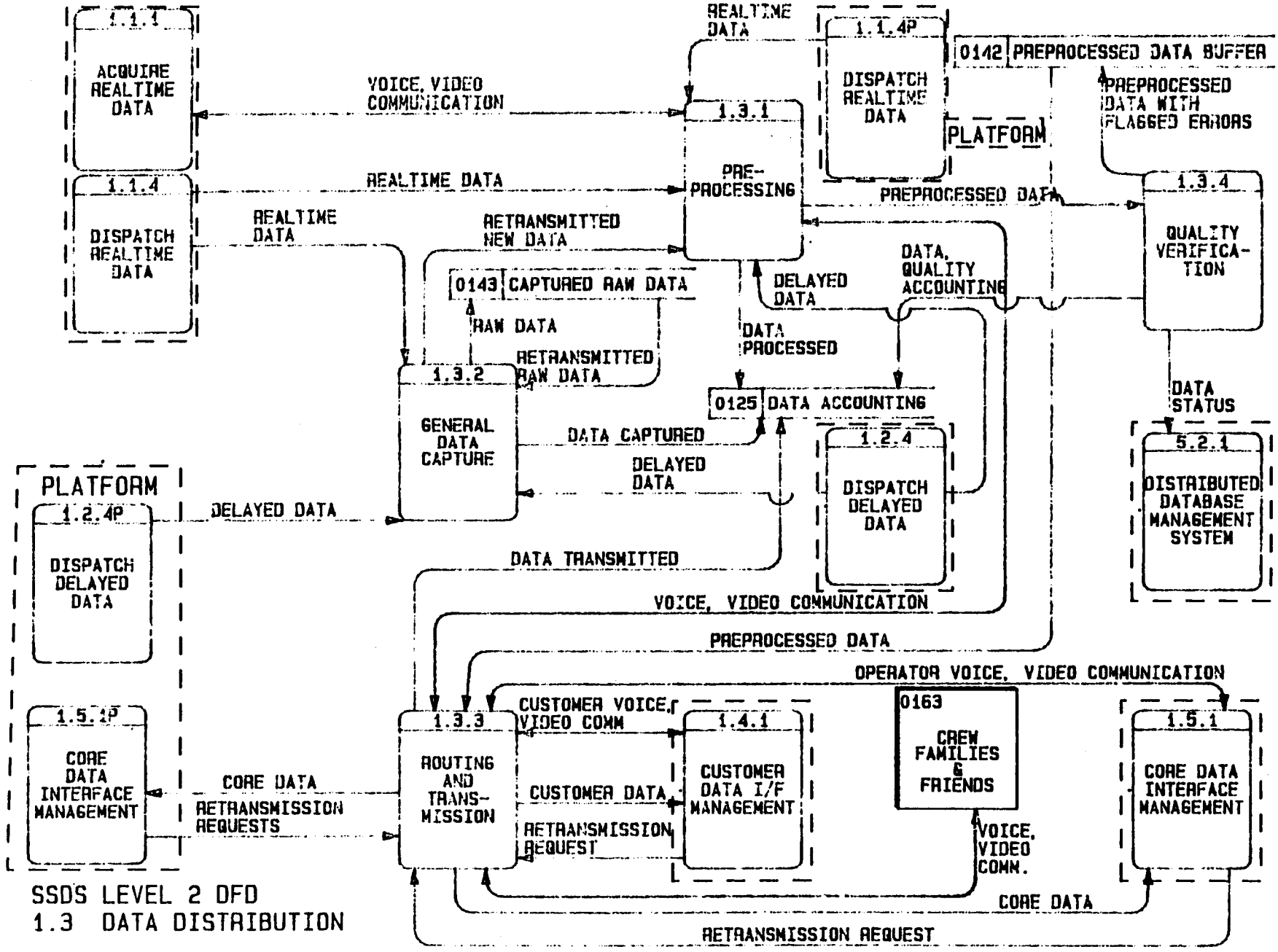
SSDS LEVEL 2 DFD-PLATFORM
1.1 MANAGE REALTIME DATA RETURN



SSDS LEVEL 2 DFD -SPACE STATION
1.2 MANAGE DELAYED DATA RETURN

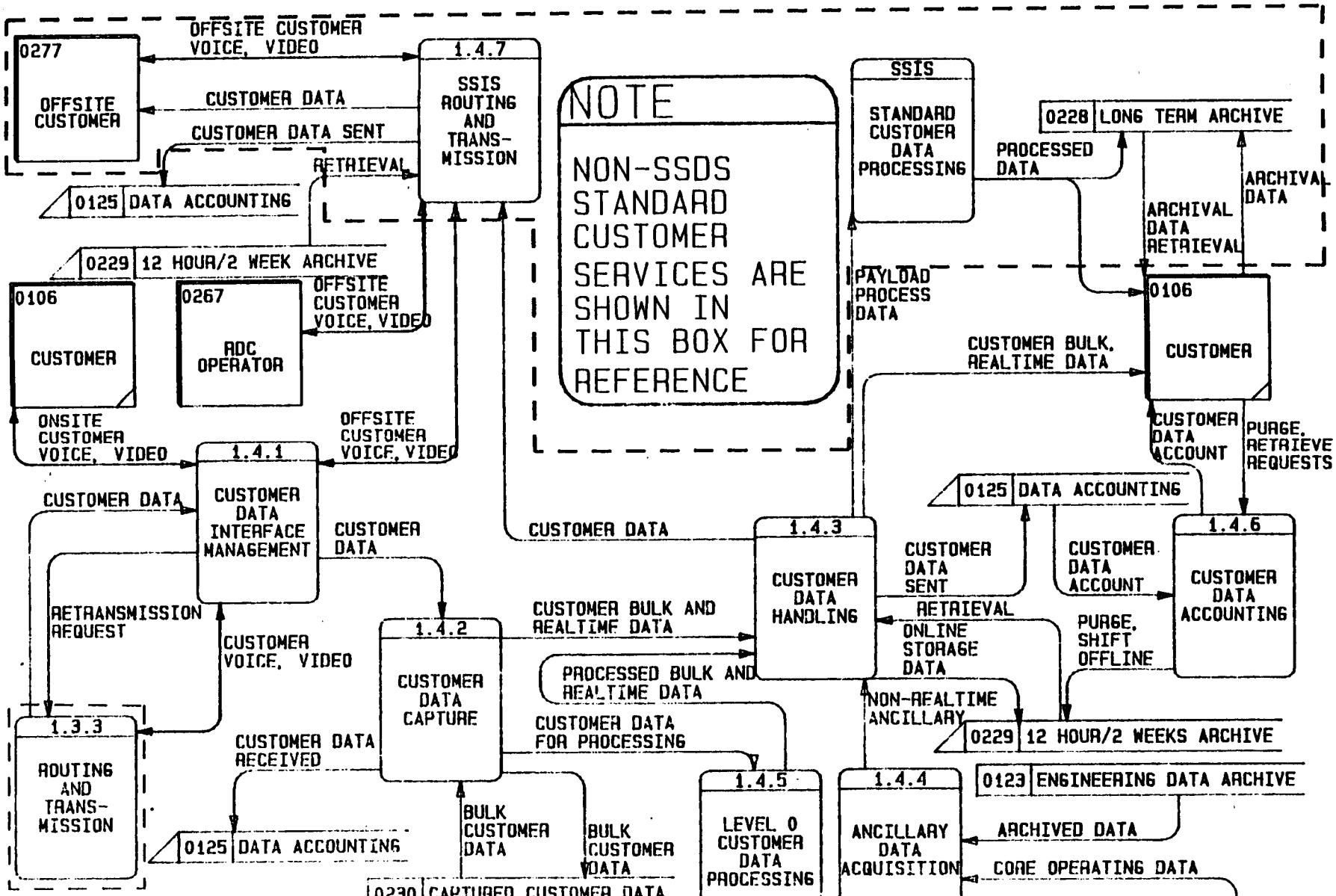


SSDS LEVEL 2 DFD-PLATFORM
1.2 MANAGE DELAYED DATA RETURN



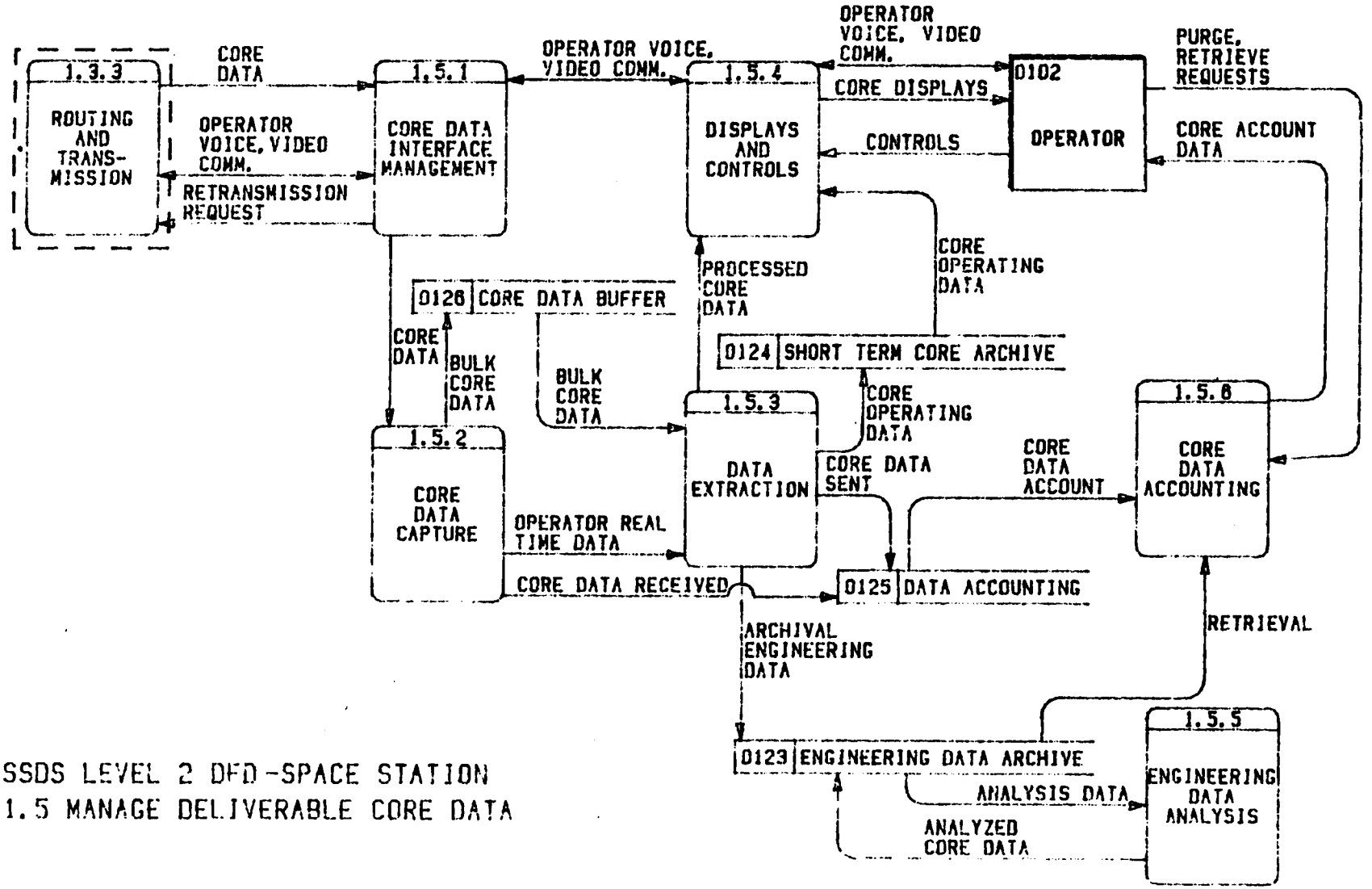
SSDS LEVEL 2 DFD
1.3 DATA DISTRIBUTION

ORIGINAL PAGE IS OF POOR QUALITY

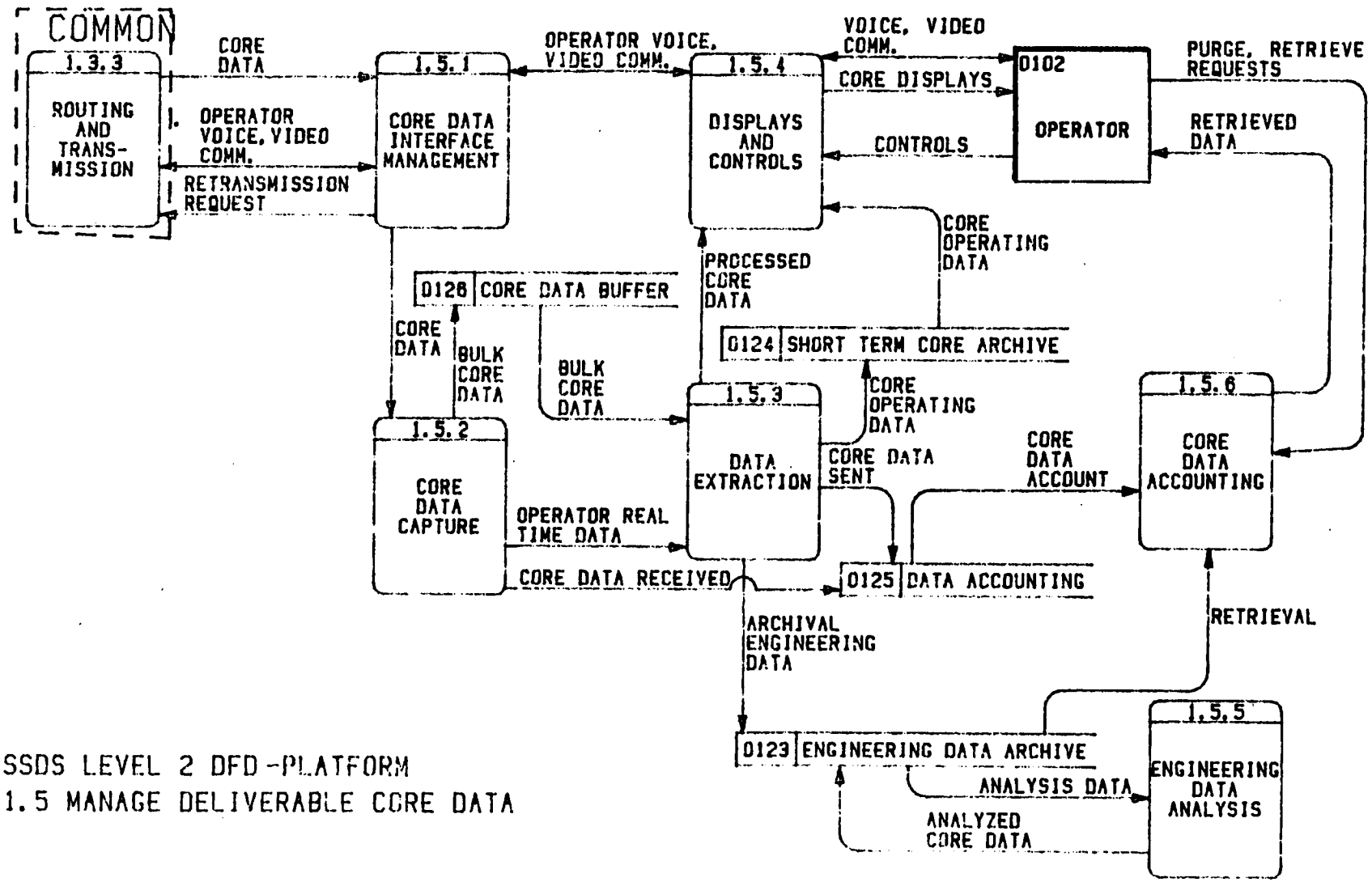


SSDS LEVEL 2 DFD-COMMON

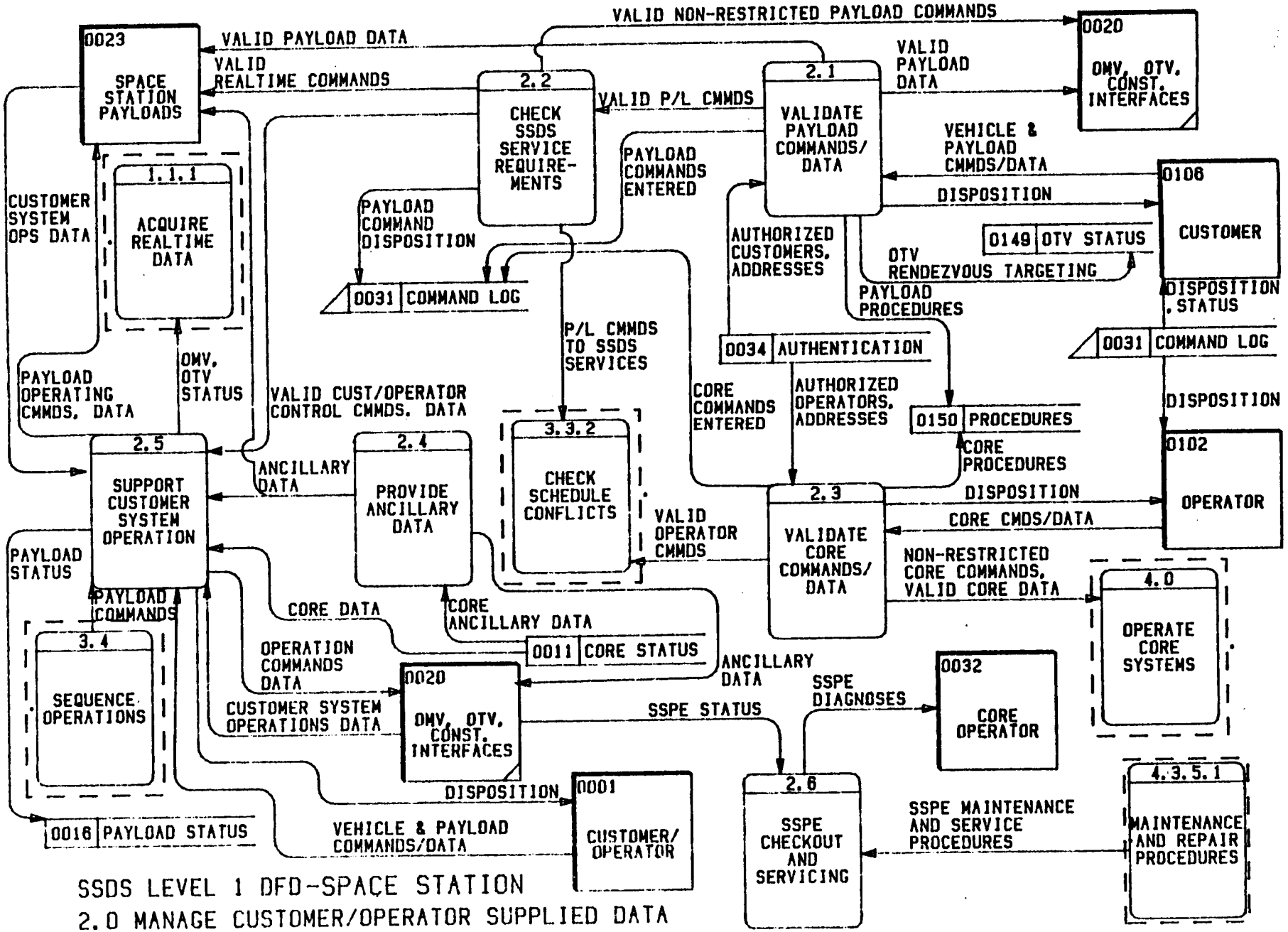
1.4 MANAGE DELIVERABLE CUSTOMER DATA



SSDS LEVEL 2 DFD-SPACE STATION
1.5 MANAGE DELIVERABLE CORE DATA

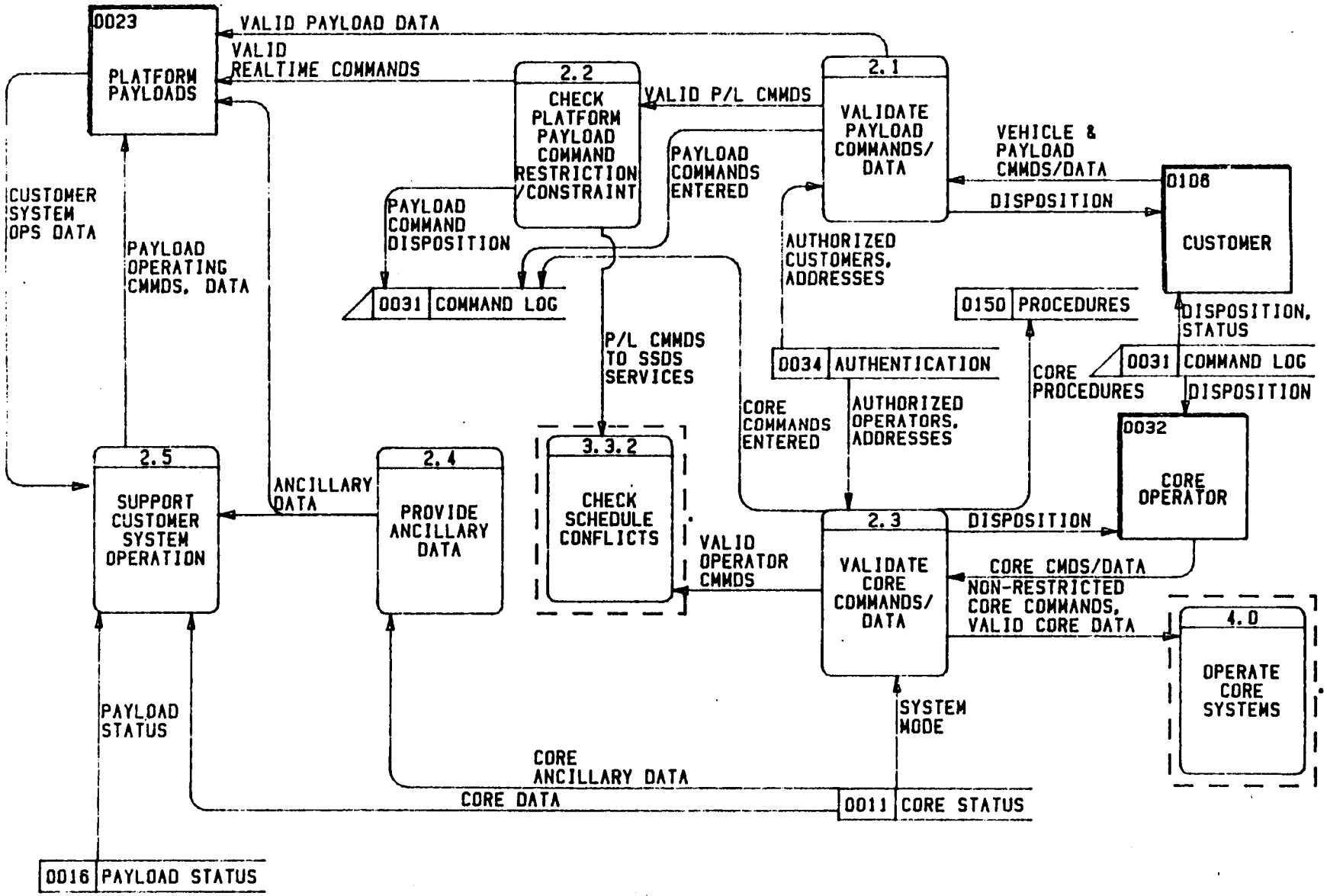


SSDS LEVEL 2 DFD-PLATFORM
1.5 MANAGE DELIVERABLE CORE DATA



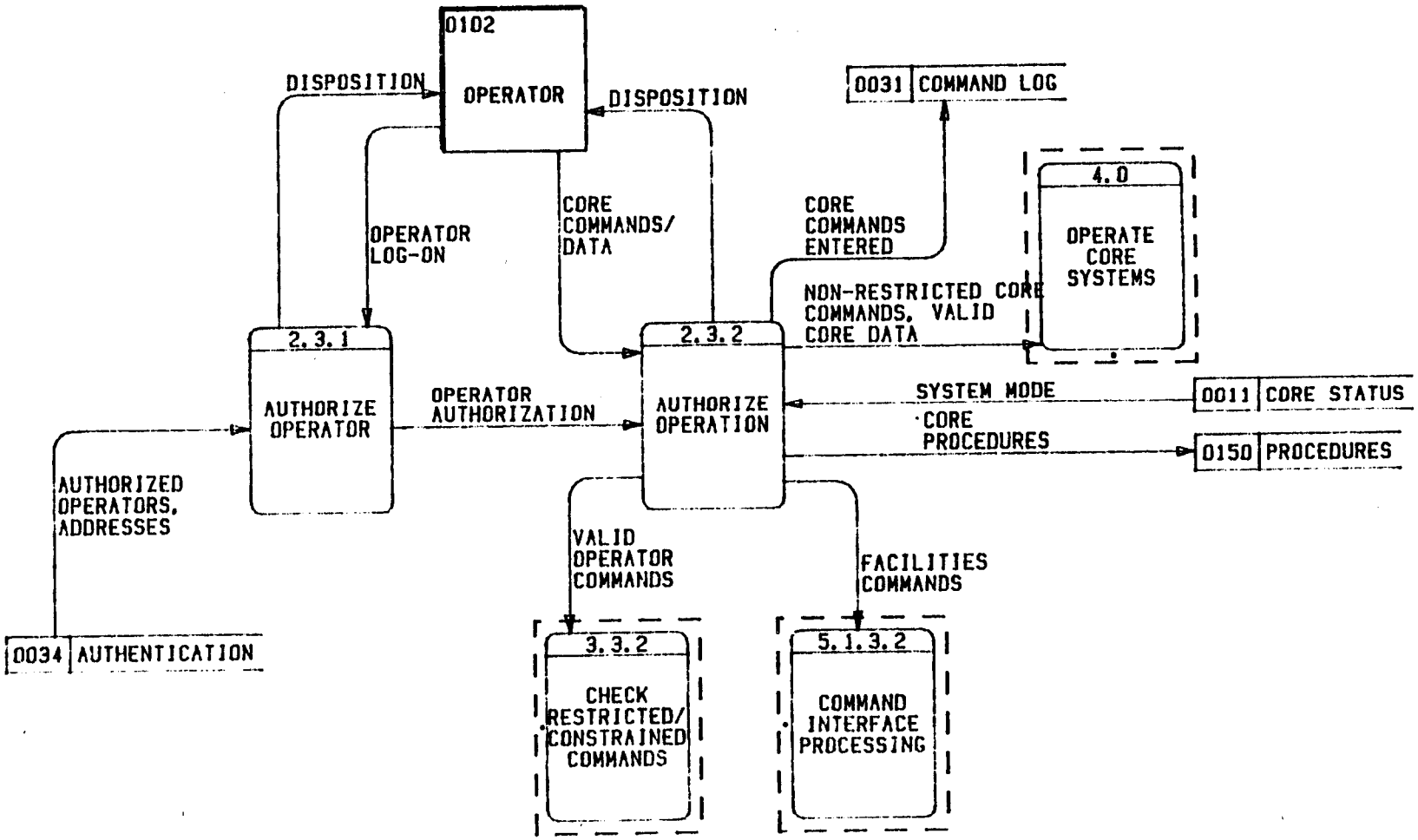
SSDS LEVEL 1 DFD-SPACE STATION

2.0 MANAGE CUSTOMER/OPERATOR SUPPLIED DATA

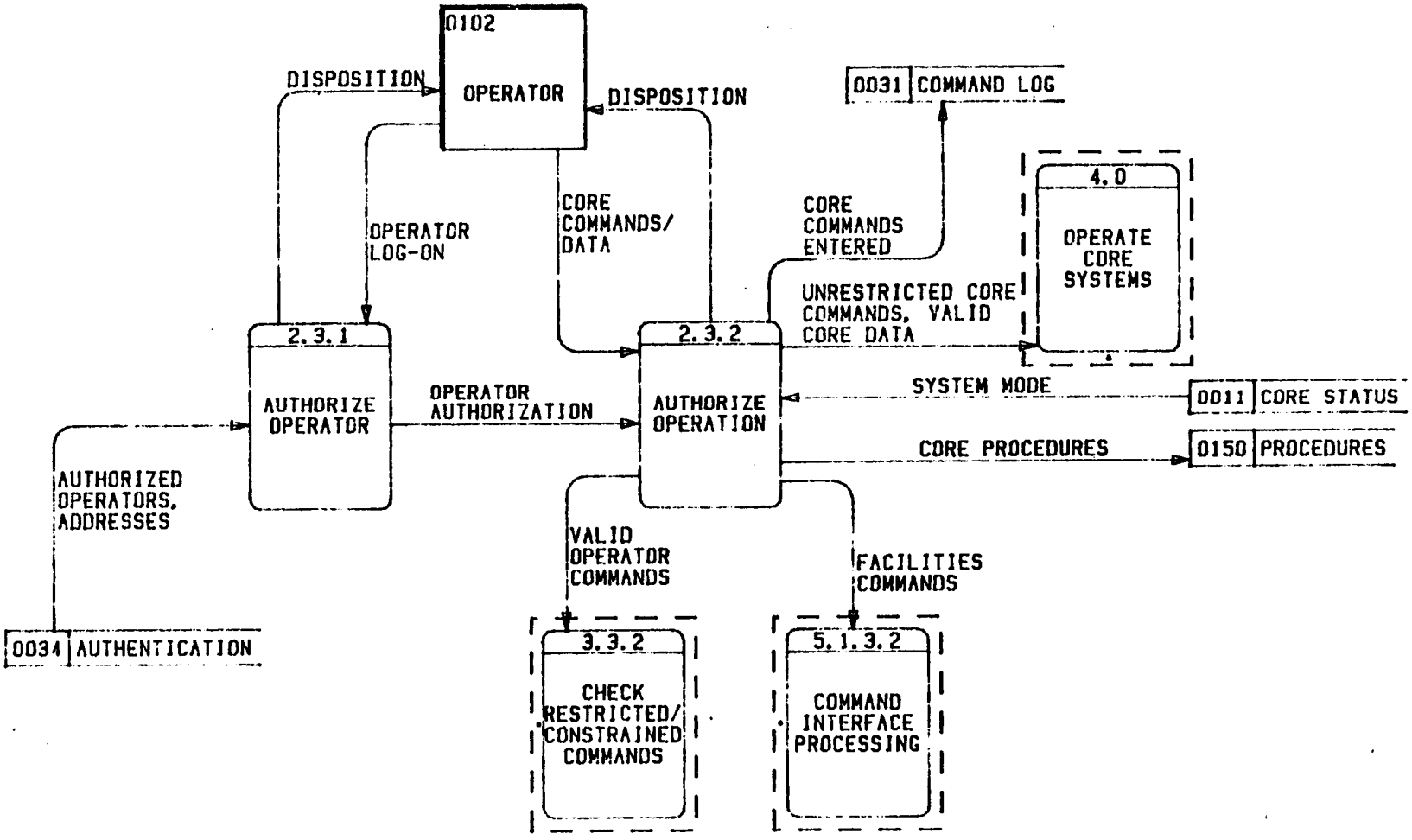


SSDS LEVEL 1 DFD-PLATFORM

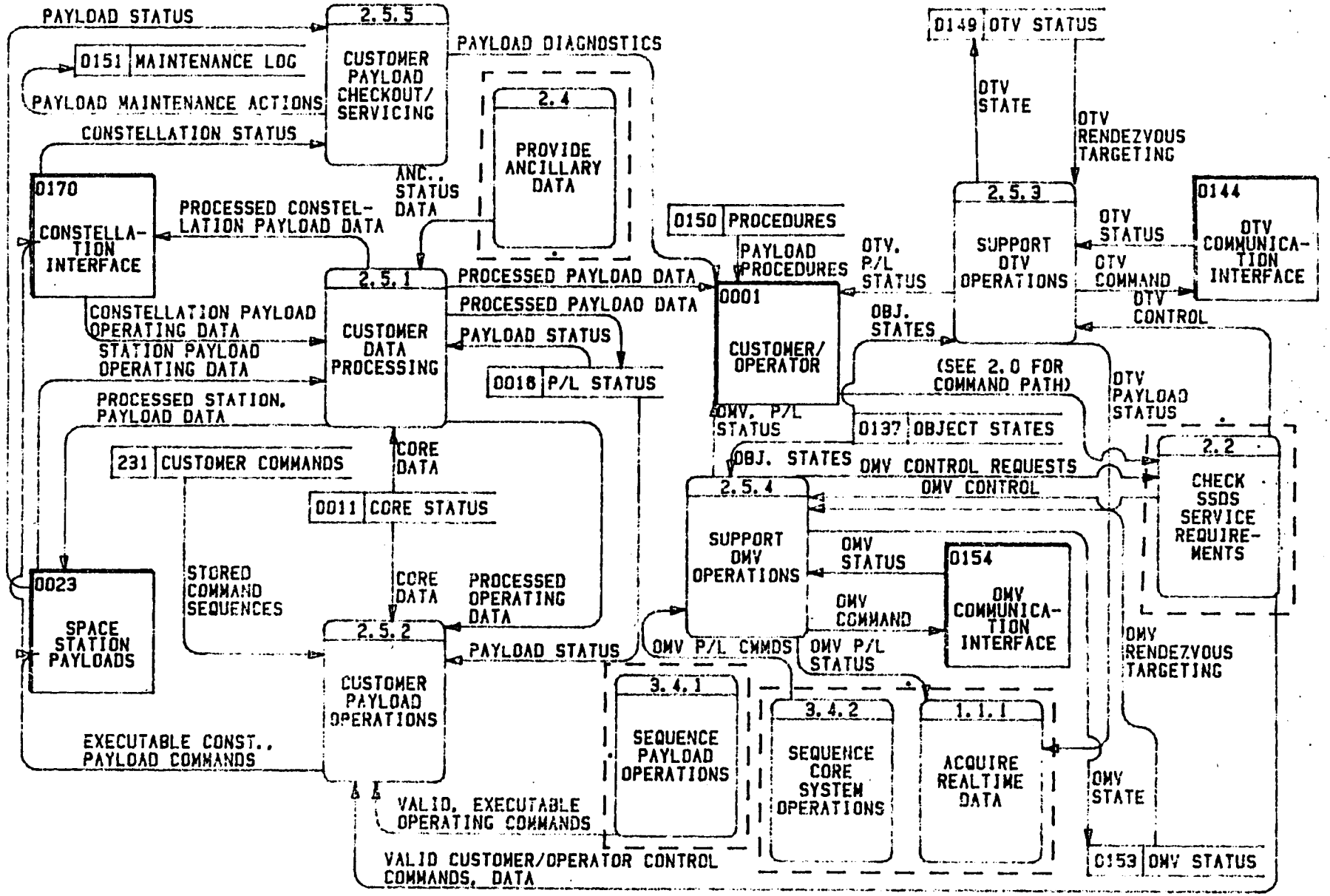
2.0 MANAGE CUSTOMER/OPERATOR SUPPLIED DATA



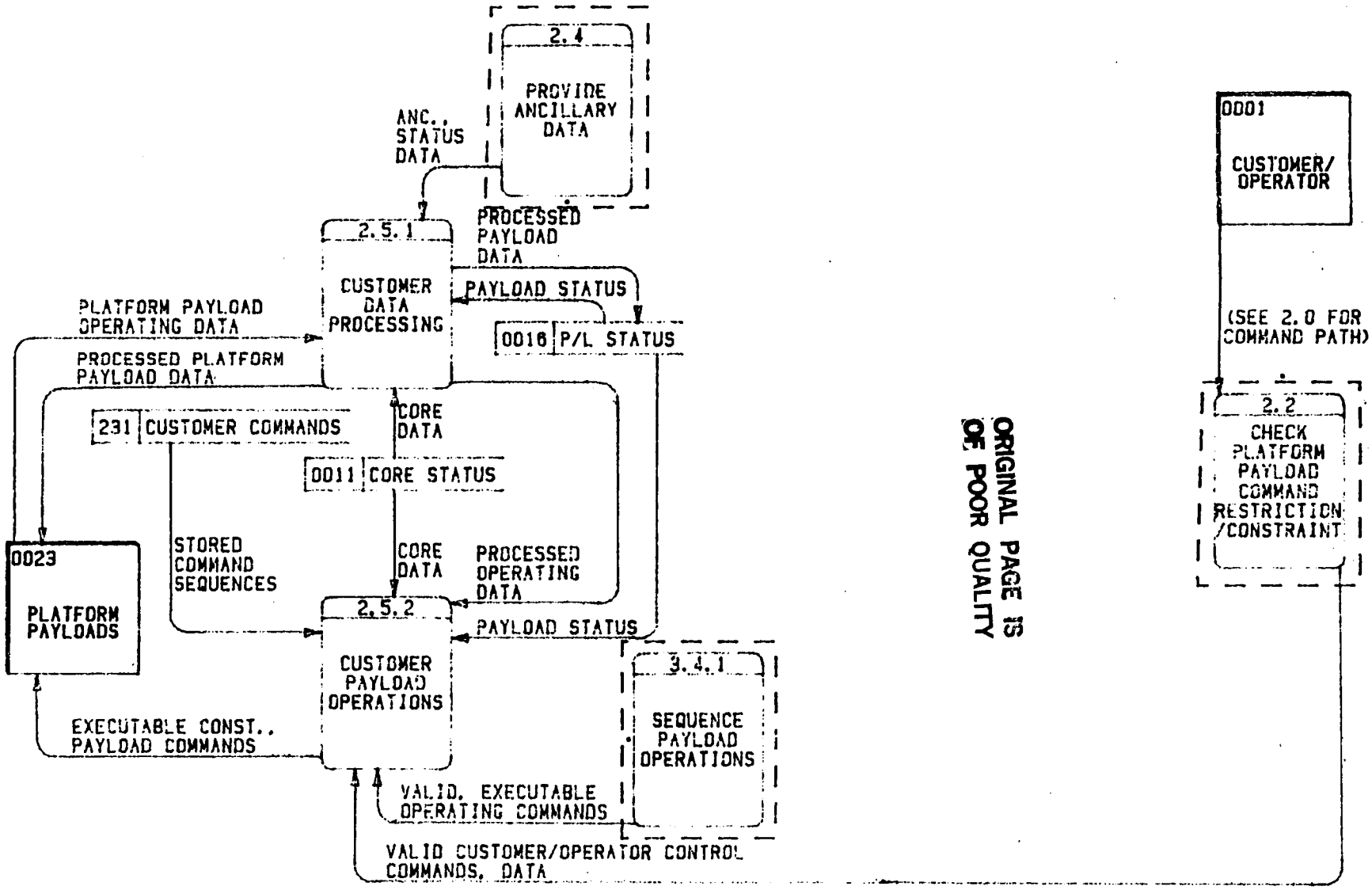
SSDS LEVEL 2 DFD-SPACE STATION
2.3 VALIDATE CORE COMMANDS/DATA



SSDS LEVEL 2 DFD-PLATFORM
2.3 VALIDATE CORE COMMANDS/DATA



SSDS LEVEL 2 DFD-SPACE STATION
2.5 SUPPORT CUSTOMER SYSTEM OPERATION



SSDS LEVEL 2 DFD--PLATFORM
2.5 SUPPORT CUSTOMER SYSTEM OPERATION

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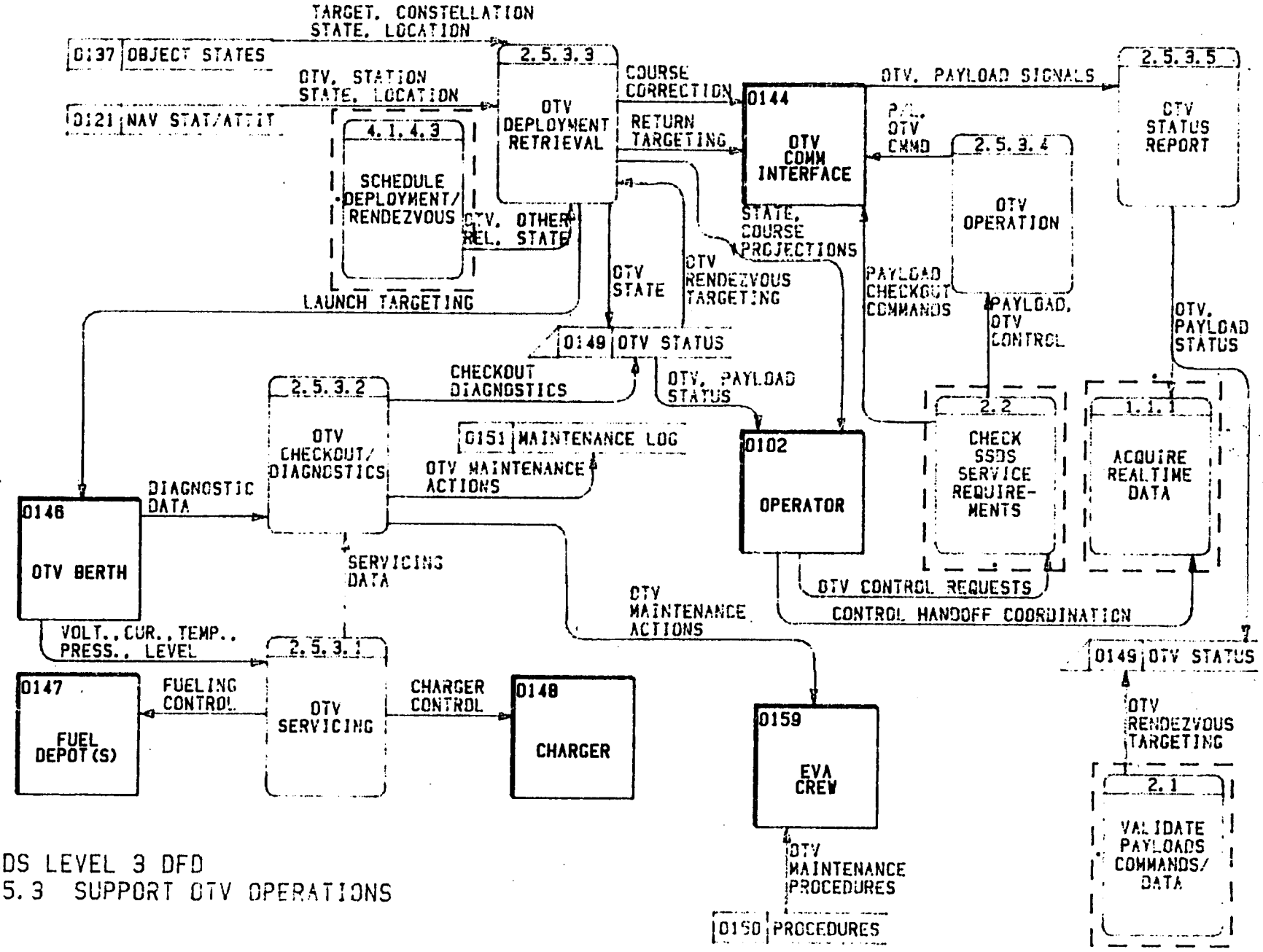
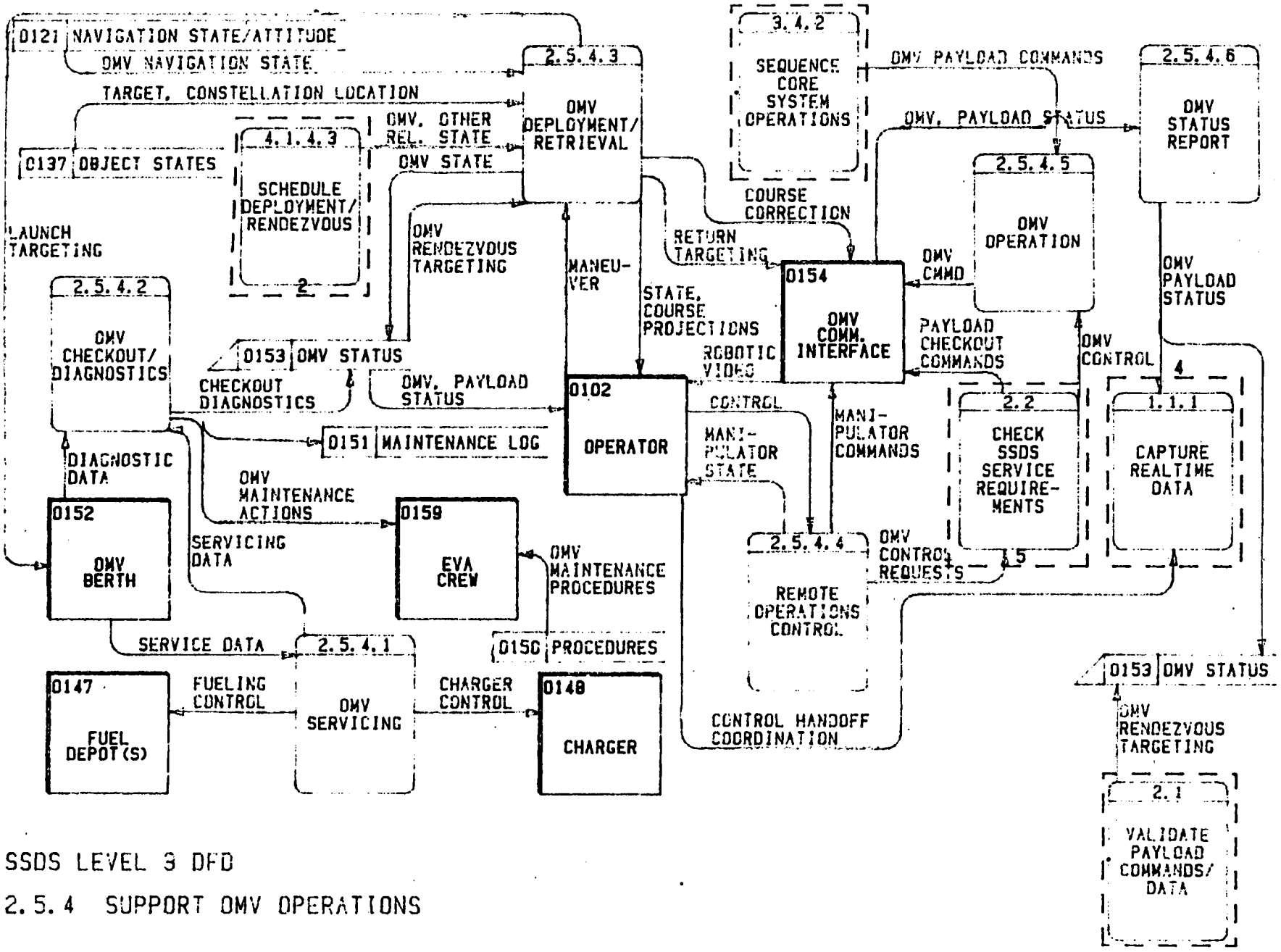
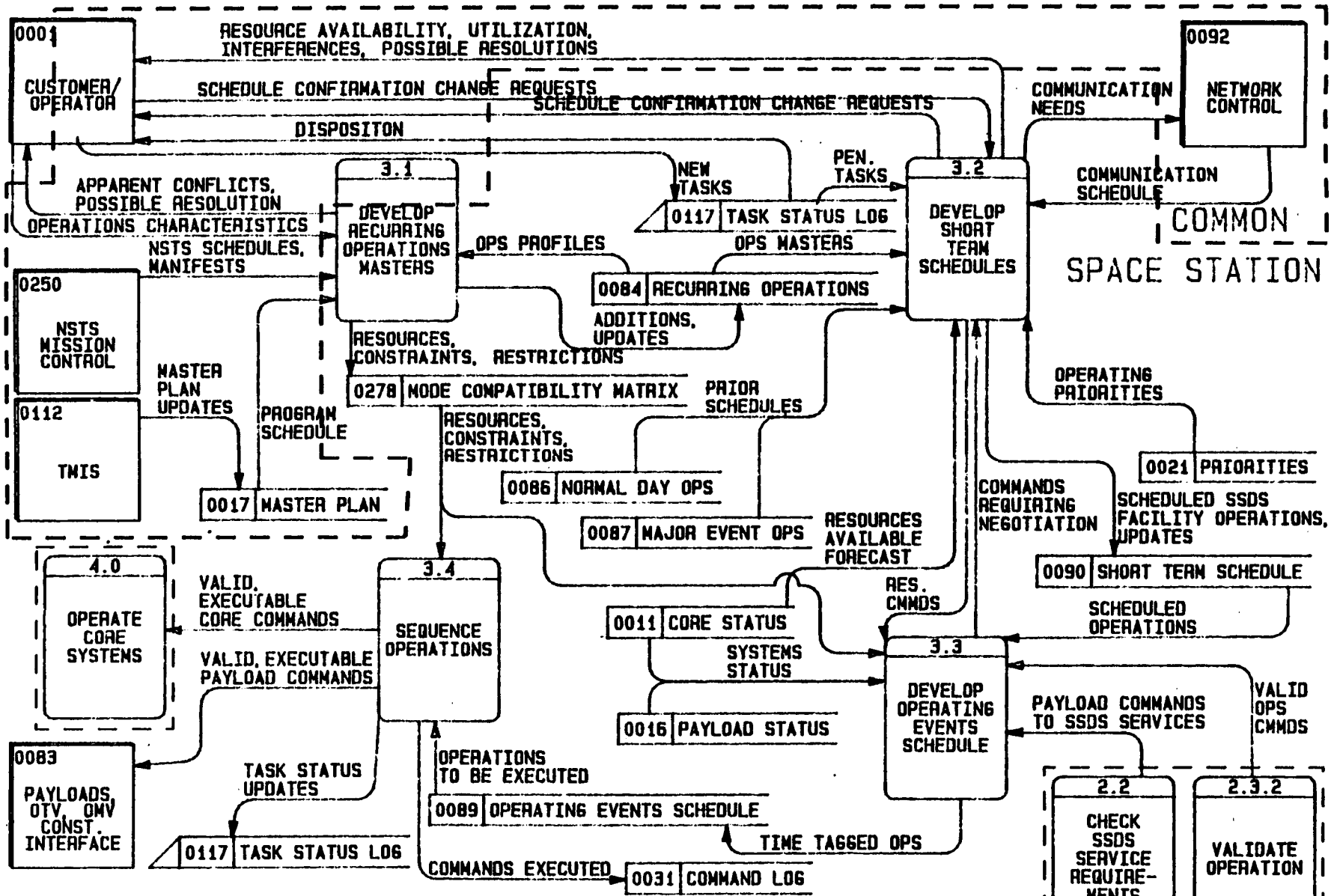


SSDS LEVEL 3 DFD
2.5.3 SUPPORT OTV OPERATIONS

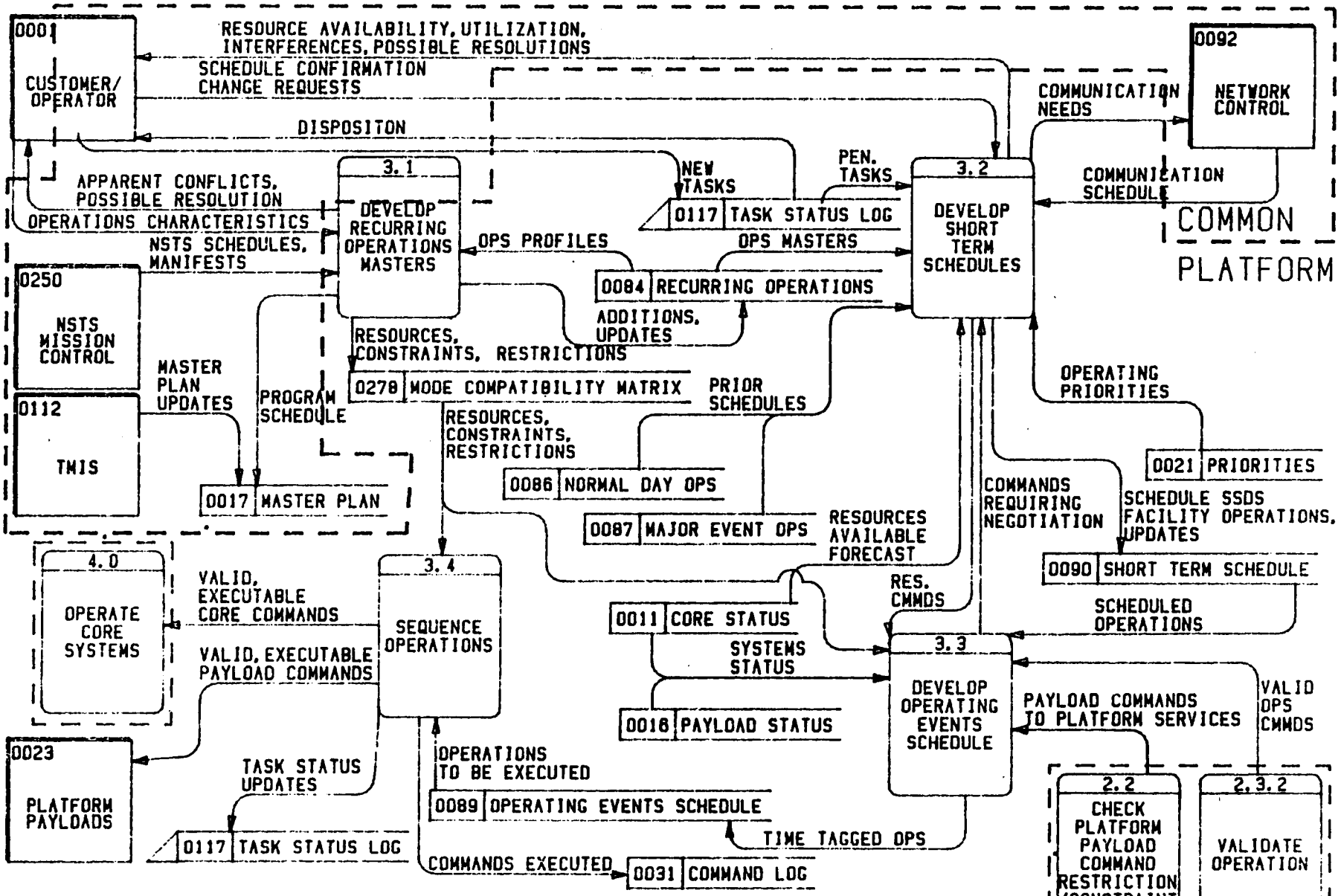


SSDS LEVEL 3 DFD

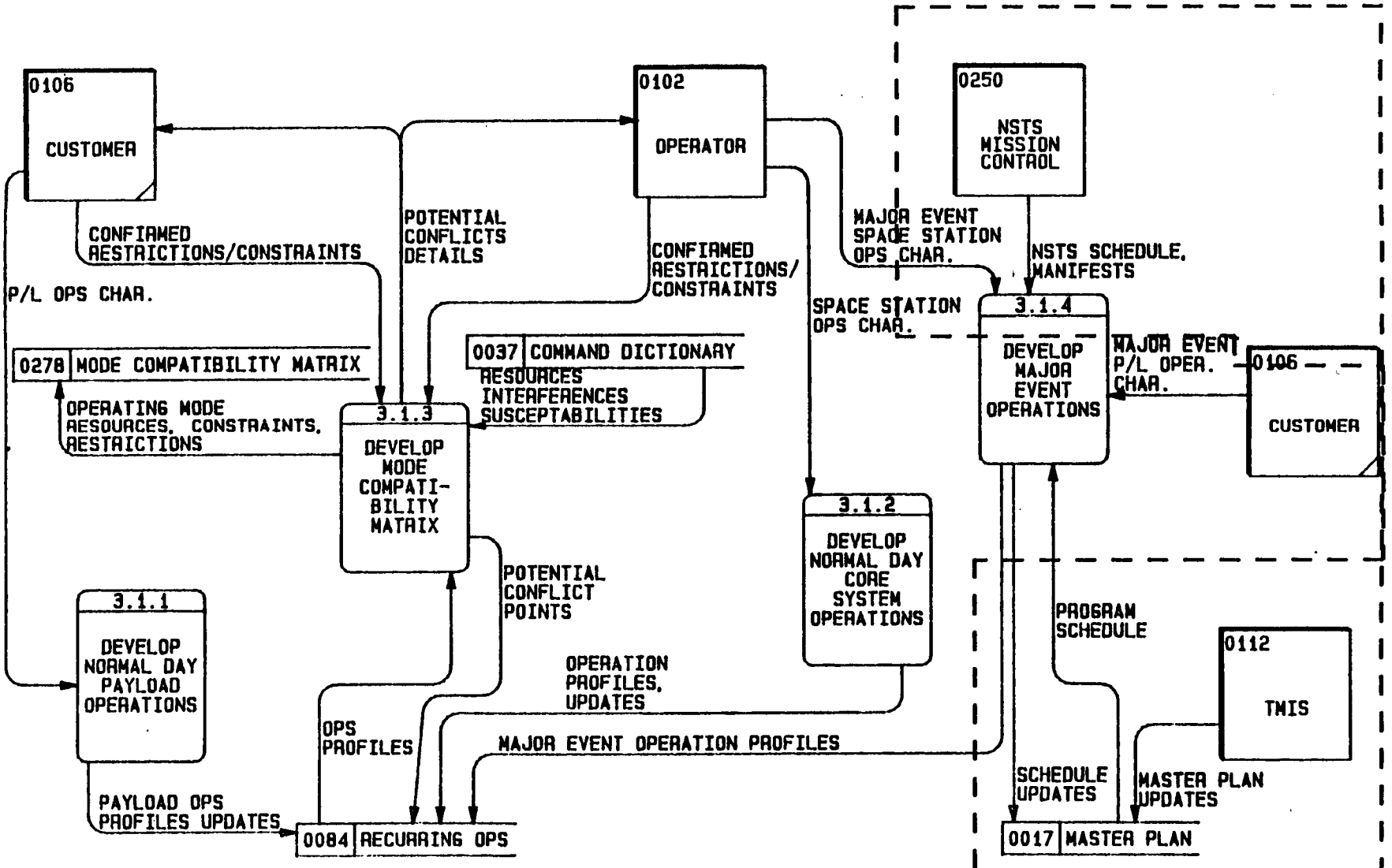
2.5.4 SUPPORT OMV OPERATIONS



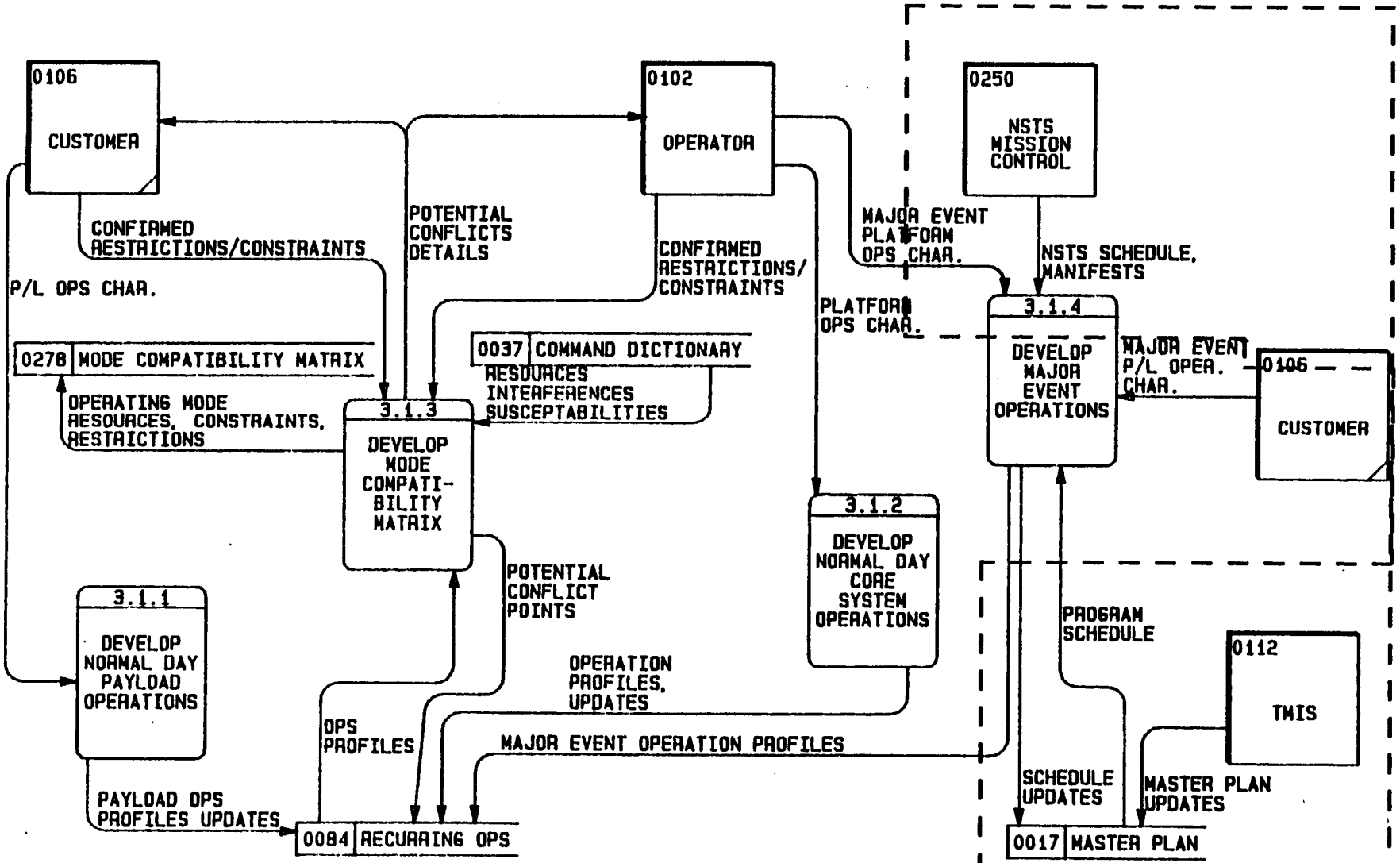
SSDS LEVEL 1 DFD--SPACE STATION
3.0 SCHEDULE AND EXECUTE OPERATIONS



SSDS LEVEL 1 DFD-PLATFORM
3.0 SCHEDULE AND EXECUTE OPERATIONS



SSDS LEVEL 2 DFD -SPACE STATION
3.1 DEVELOP RECURRING OPERATIONS MASTERS



SSDS LEVEL 2 DFD -PLATFORM
3.1 DEVELOP RECURRING OPERATIONS MASTERS

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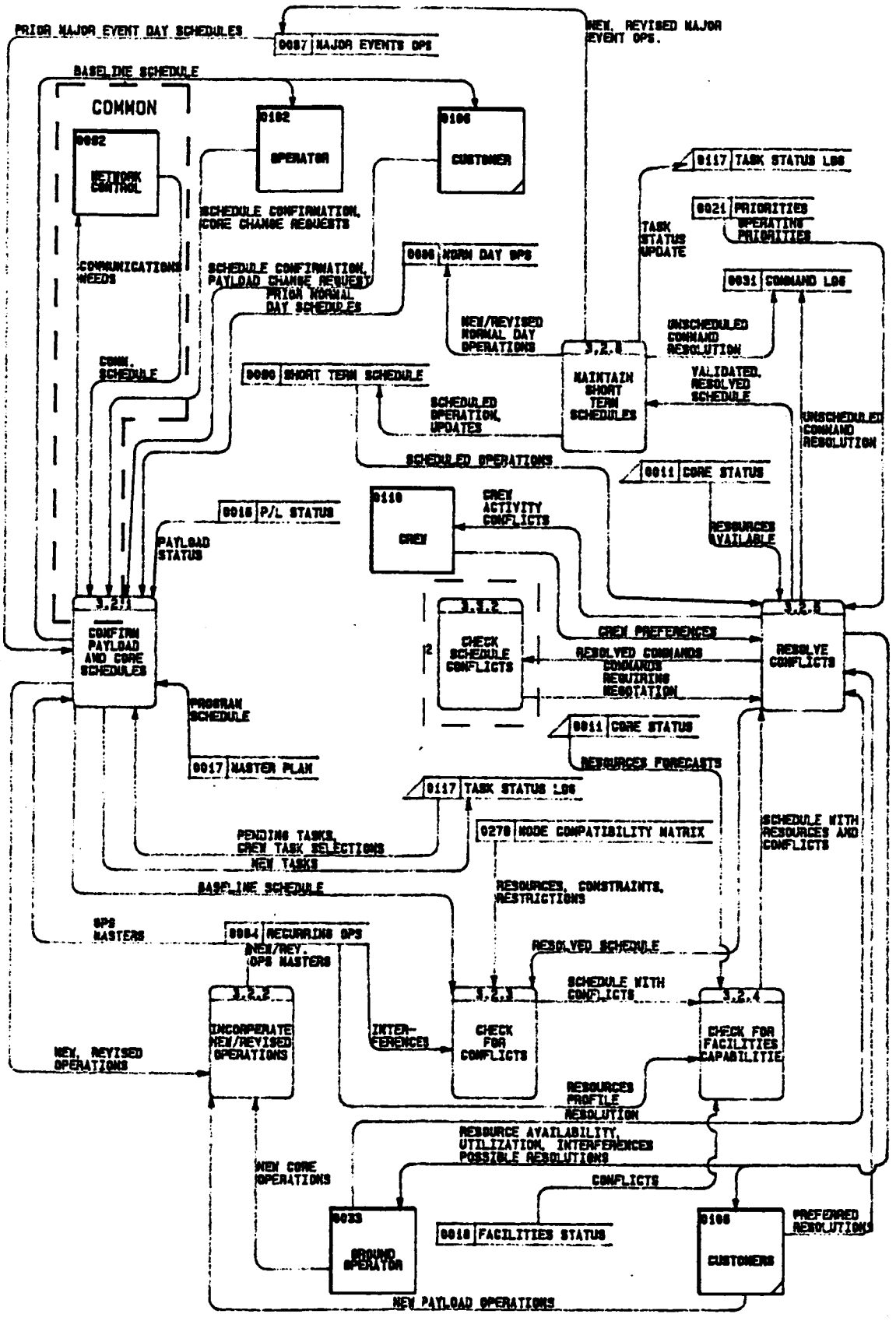

SSDS LEVEL 2-SPACE STATION
3.2 DEVELOP SHORT TERM SCHEDULES

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ORIGINAL PAGE IS
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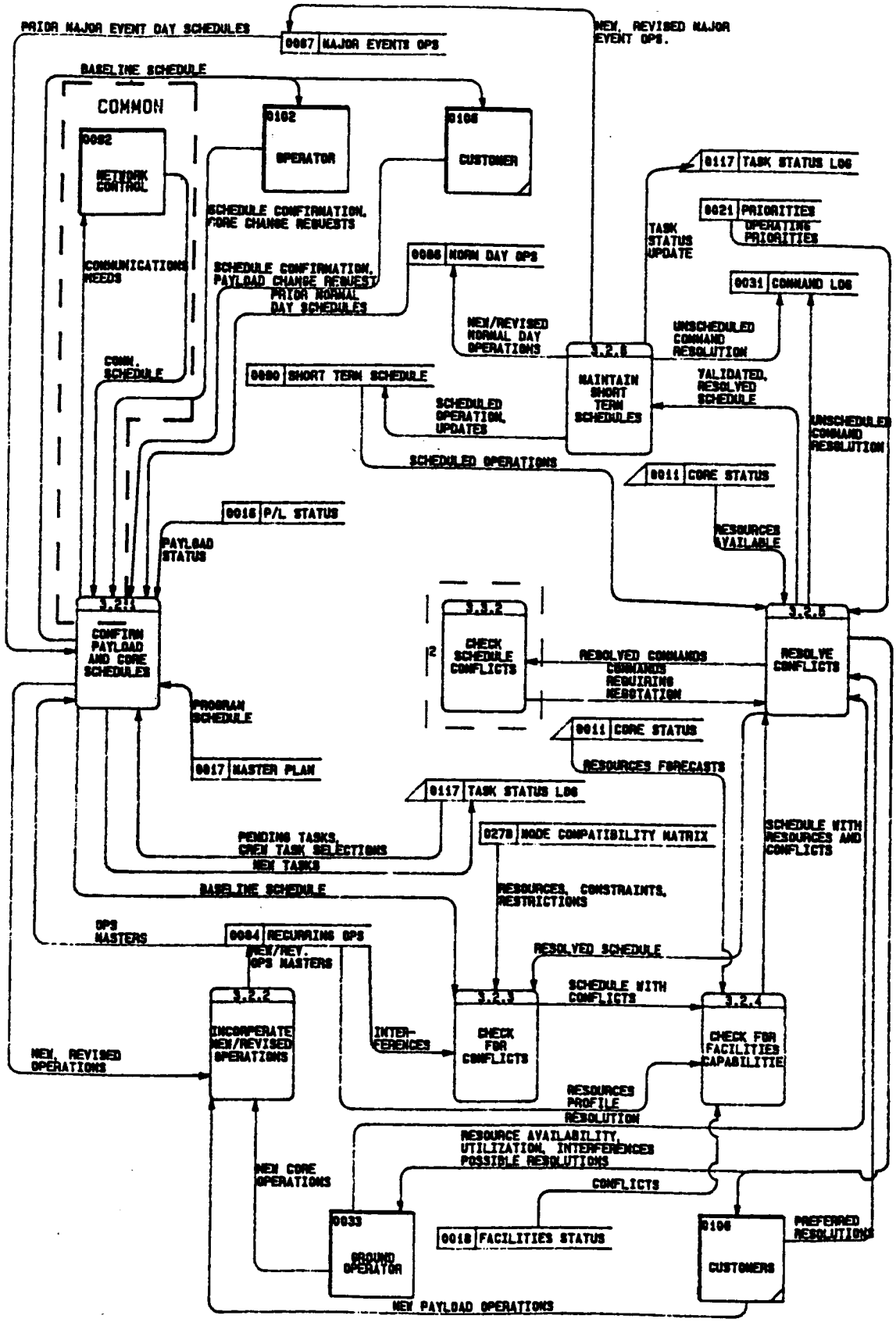
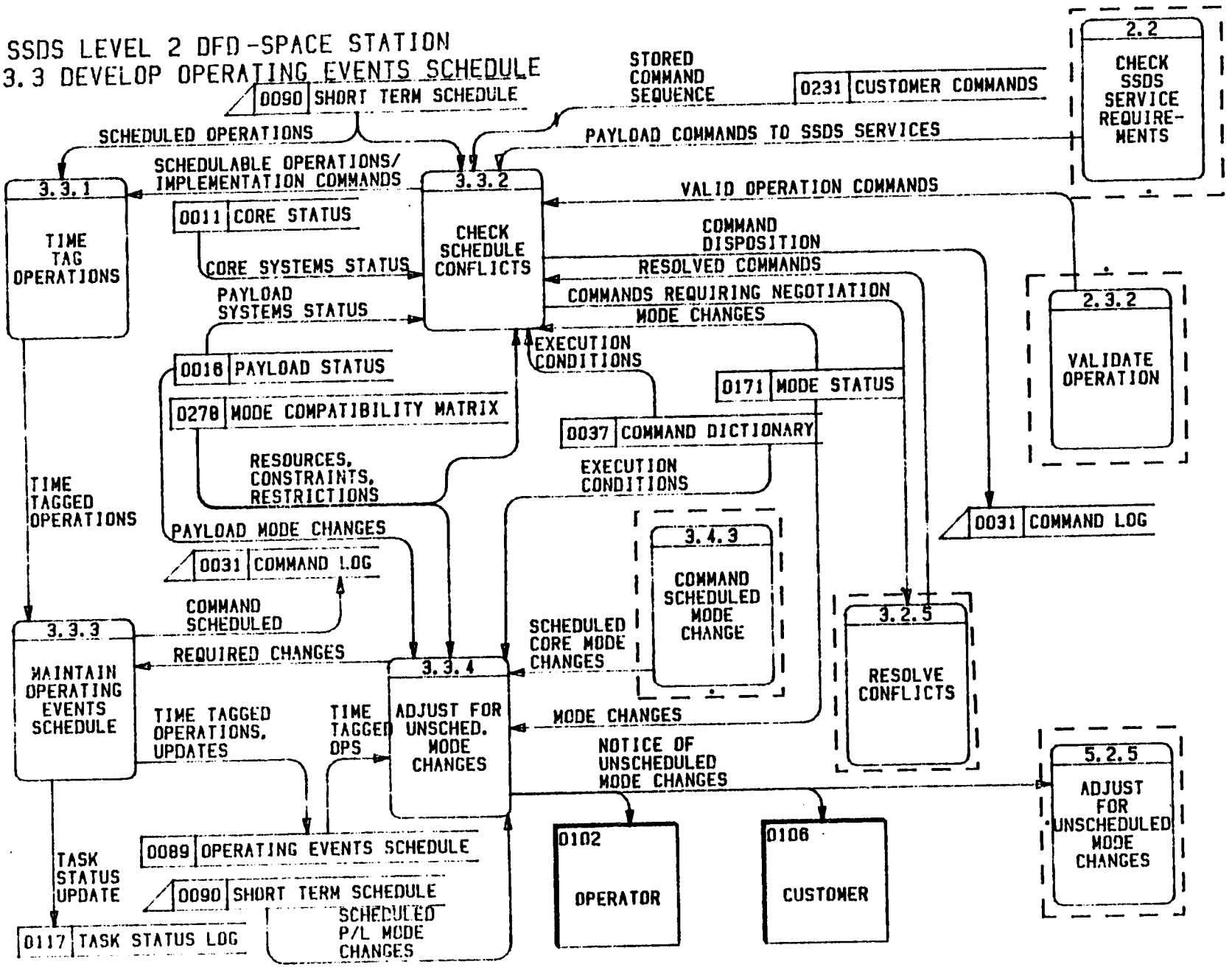
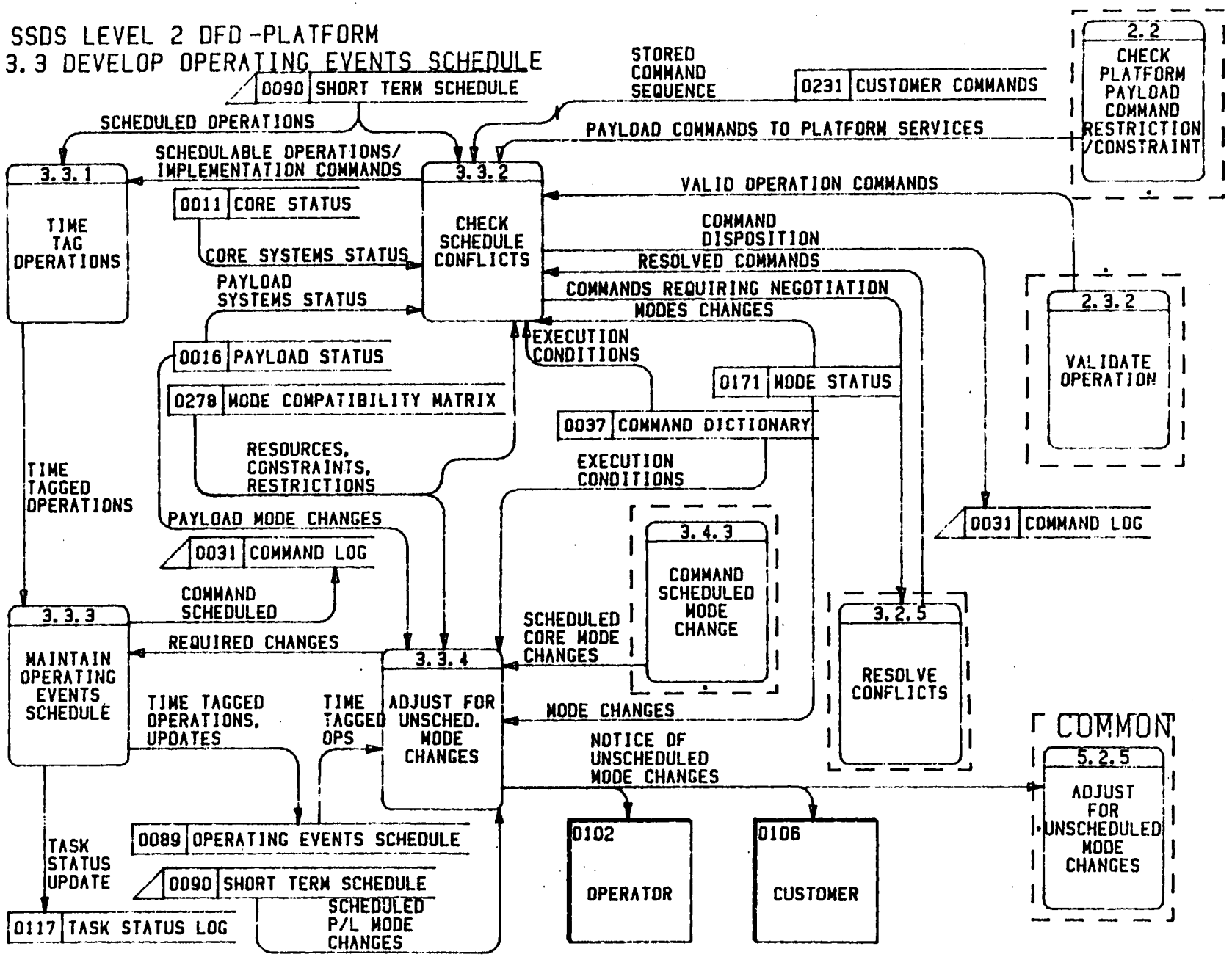


SSDS LEVEL 2-PLATFORM
3.2 DEVELOP SHORT TERM SCHEDULES


SSDS LEVEL 2 DFD-SPACE STATION
3.3 DEVELOP OPERATING EVENTS SCHEDULE
0090 SHORT TERM SCHEDULE
STORED COMMAND SEQUENCE
0231 CUSTOMER COMMANDS
2.2 CHECK SSDS SERVICE REQUIRE-MENTS
PAYLOAD COMMANDS TO SSDS SERVICES
SCHEDULED OPERATIONS
SCHEDULABLE OPERATIONS/ IMPLEMENTATION COMMANDS
3.3.1 TIME TAG OPERATIONS
3.3.2 CHECK SCHEDULE CONFLICTS
VALID OPERATION COMMANDS
0011 CORE STATUS
CORE SYSTEMS STATUS
PAYLOAD SYSTEMS STATUS
COMMAND DISPOSITION
RESOLVED COMMANDS
COMMANDS REQUIRING NEGOTIATION
MODE CHANGES
2.3.2 VALIDATE OPERATION
EXECUTION CONDITIONS
0016 PAYLOAD STATUS
0171 MODE STATUS
0278 MODE COMPATIBILITY MATRIX
0037 COMMAND DICTIONARY
RESOURCES, CONSTRAINTS, RESTRICTIONS
EXECUTION CONDITIONS
TIME TAGGED OPERATIONS
PAYLOAD MODE CHANGES
0031 COMMAND LOG
3.4.3 COMMAND SCHEDULED MODE CHANGE
0031 COMMAND LOG
COMMAND SCHEDULED
3.3.3 MAINTAIN OPERATING EVENTS SCHEDULE
REQUIRED CHANGES
3.3.4 ADJUST FOR UNSCHED. MODE CHANGES
SCHEDULED CORE MODE CHANGES
3.2.5 RESOLVE CONFLICTS
TIME TAGGED OPERATIONS, UPDATES
TIME TAGGED OPS
MODE CHANGES
NOTICE OF UNSCHEDULED MODE CHANGES
5.2.5 ADJUST FOR UNSCHEDULED MODE CHANGES
0089 OPERATING EVENTS SCHEDULE
0102 OPERATOR
0106 CUSTOMER
TASK STATUS UPDATE
0090 SHORT TERM SCHEDULE
SCHEDULED P/L MODE CHANGES
0117 TASK STATUS LOG


SSDS LEVEL 2 DFD -PLATFORM
3.3 DEVELOP OPERATING EVENTS SCHEDULE
0090 SHORT TERM SCHEDULE
STORED COMMAND SEQUENCE
0231 CUSTOMER COMMANDS
2.2 CHECK PLATFORM PAYLOAD COMMAND RESTRICTION /CONSTRAINT
SCHEDULED OPERATIONS
PAYLOAD COMMANDS TO PLATFORM SERVICES
SCHEDULABLE OPERATIONS/ IMPLEMENTATION COMMANDS
3.3.1 TIME TAG OPERATIONS
3.3.2 CHECK SCHEDULE CONFLICTS
VALID OPERATION COMMANDS
0011 CORE STATUS
CORE SYSTEMS STATUS
COMMAND DISPOSITION
RESOLVED COMMANDS
PAYLOAD SYSTEMS STATUS
COMMANDS REQUIRING NEGOTIATION
MODES CHANGES
2.3.2 VALIDATE OPERATION
EXECUTION CONDITIONS
0016 PAYLOAD STATUS
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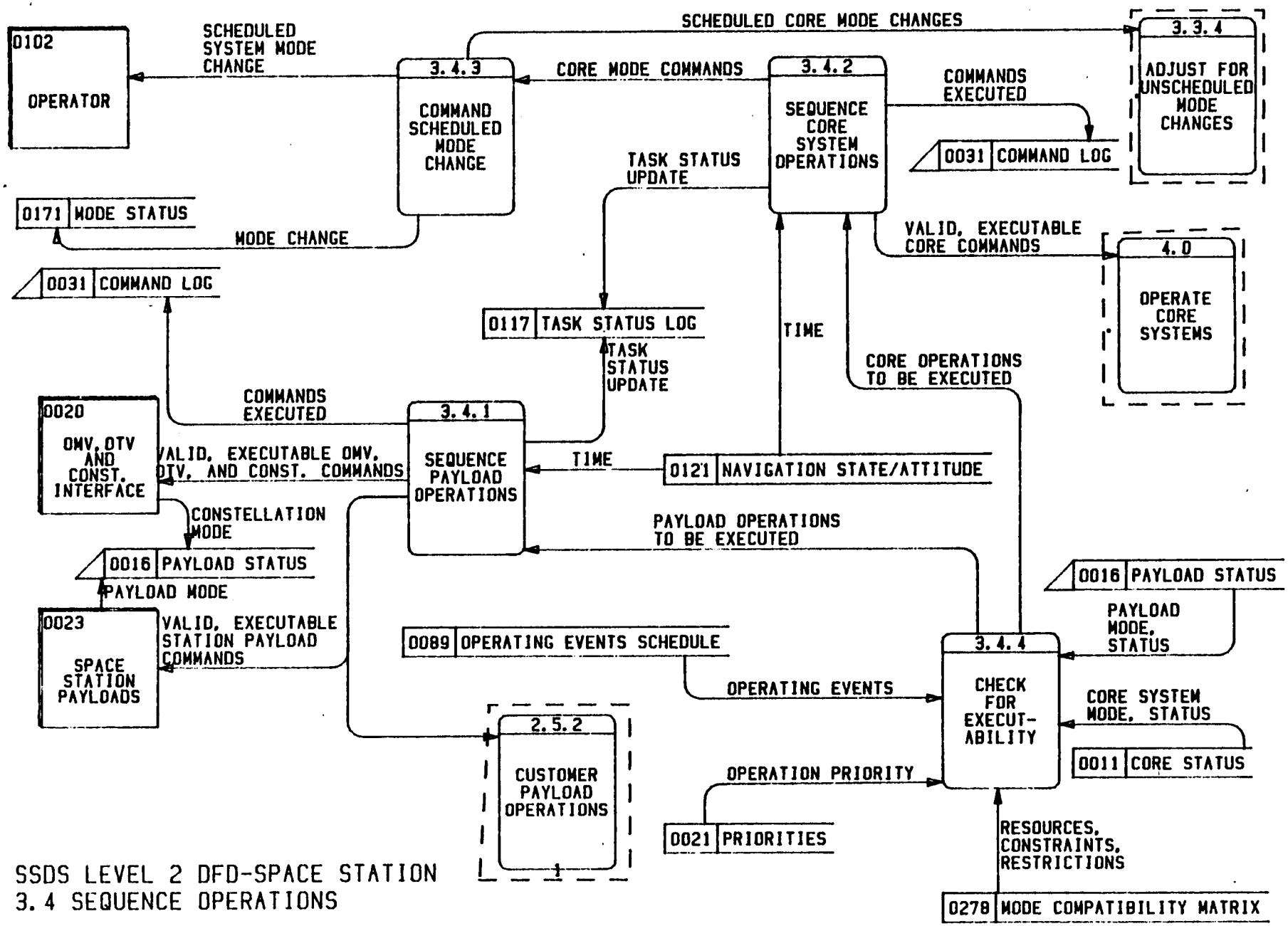
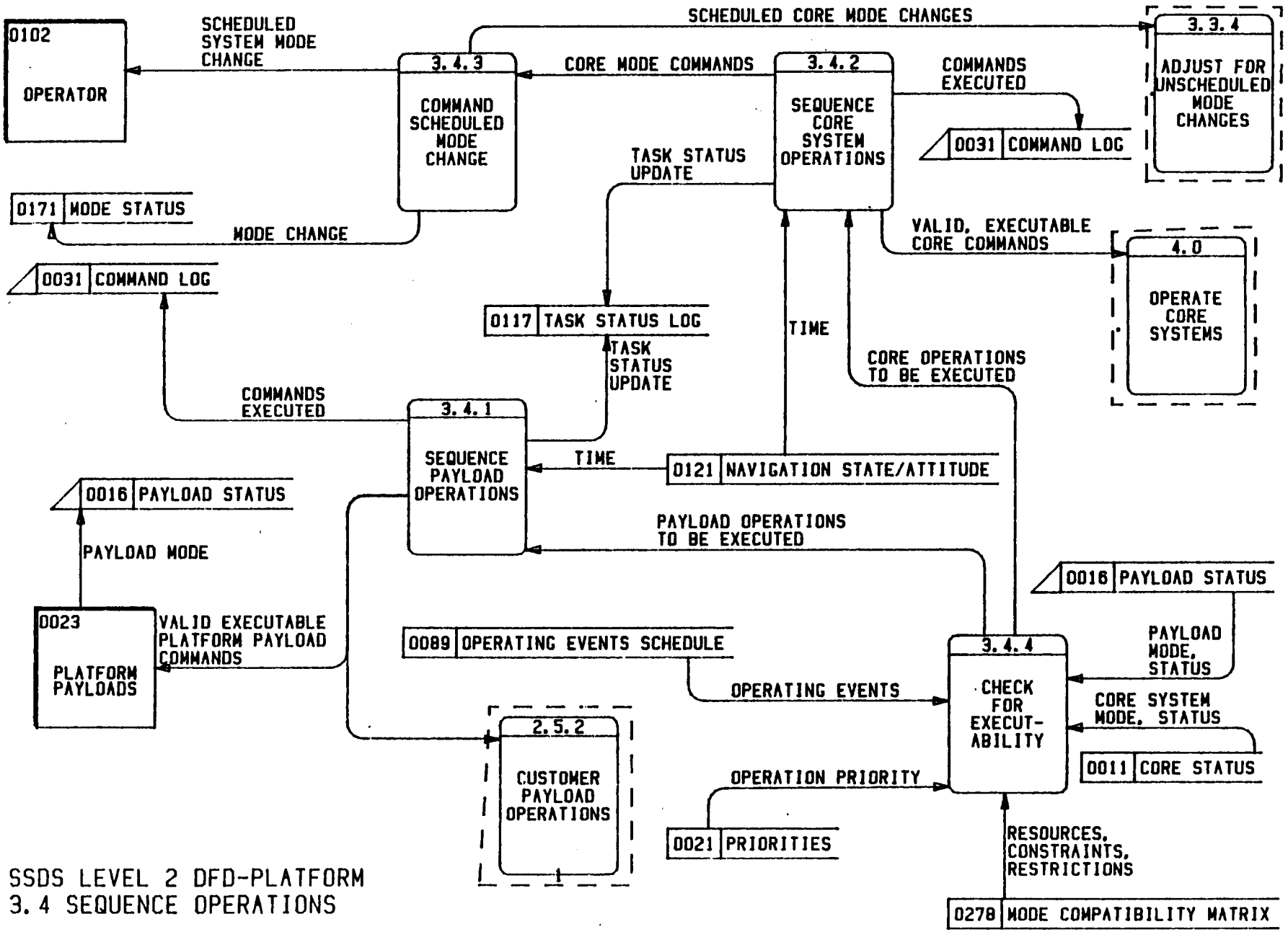
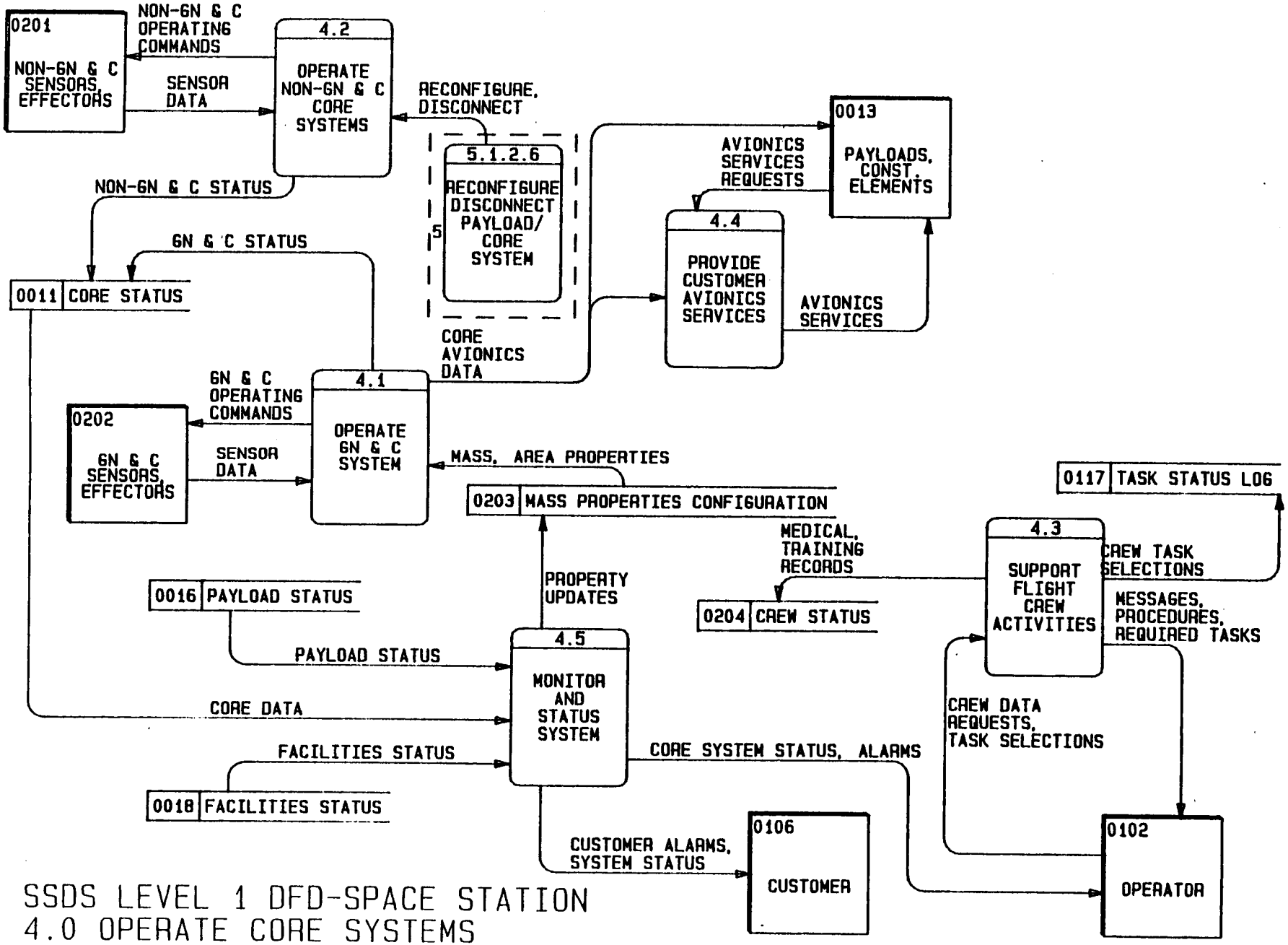
0037 COMMAND DICTIONARY
RESOURCES, CONSTRAINTS, RESTRICTIONS
EXECUTION CONDITIONS
TIME TAGGED OPERATIONS
PAYLOAD MODE CHANGES
0031 COMMAND LOG
3.4.3 COMMAND SCHEDULED MODE CHANGE
0031 COMMAND LOG
COMMAND SCHEDULED
3.3.3 MAINTAIN OPERATING EVENTS SCHEDULE
REQUIRED CHANGES
3.3.4 ADJUST FOR UNSCHED. MODE CHANGES
SCHEDULED CORE MODE CHANGES
3.2.5 RESOLVE CONFLICTS
MODE CHANGES
TIME TAGGED OPERATIONS, UPDATES
TIME TAGGED OPS
NOTICE OF UNSCHEDULED MODE CHANGES
COMMON
5.2.5 ADJUST FOR UNSCHEDULED MODE CHANGES
0089 OPERATING EVENTS SCHEDULE
0102 OPERATOR
0106 CUSTOMER
TASK STATUS UPDATE
0090 SHORT TERM SCHEDULE
SCHEDULED P/L MODE CHANGES
0117 TASK STATUS LOG



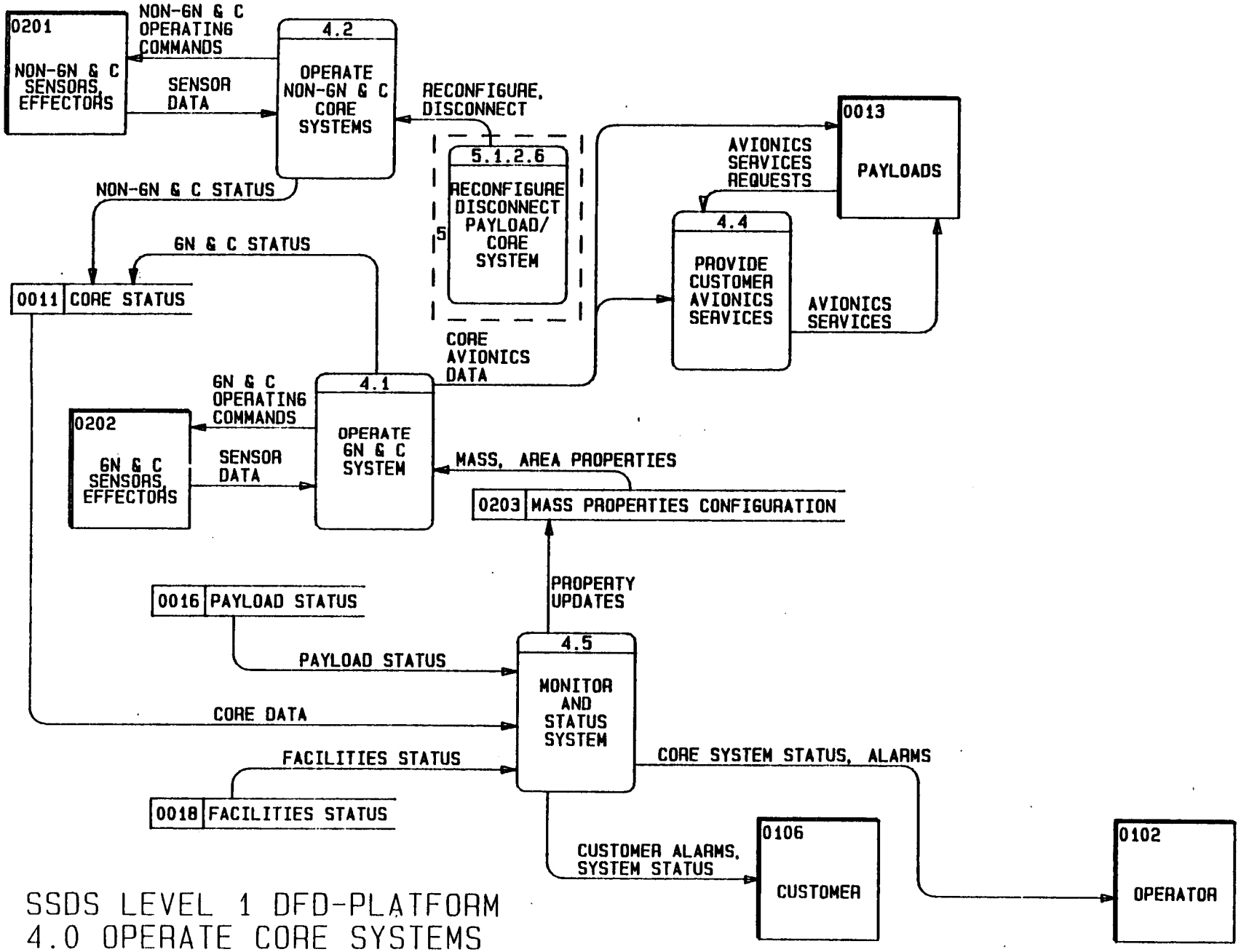
SSDS LEVEL 2 DFD-SPACE STATION
3.4 SEQUENCE OPERATIONS



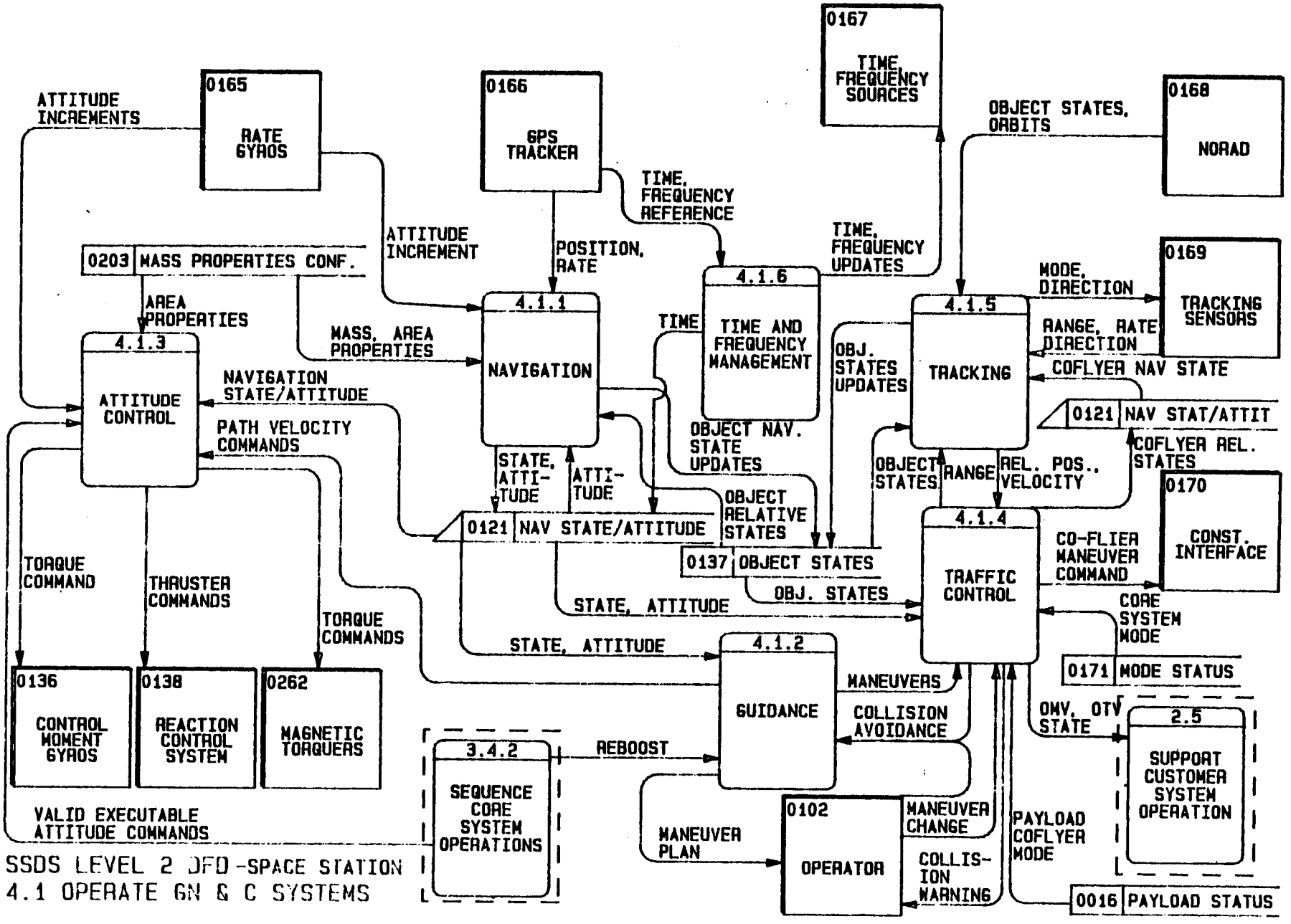
SSDS LEVEL 2 DFD-PLATFORM
3.4 SEQUENCE OPERATIONS



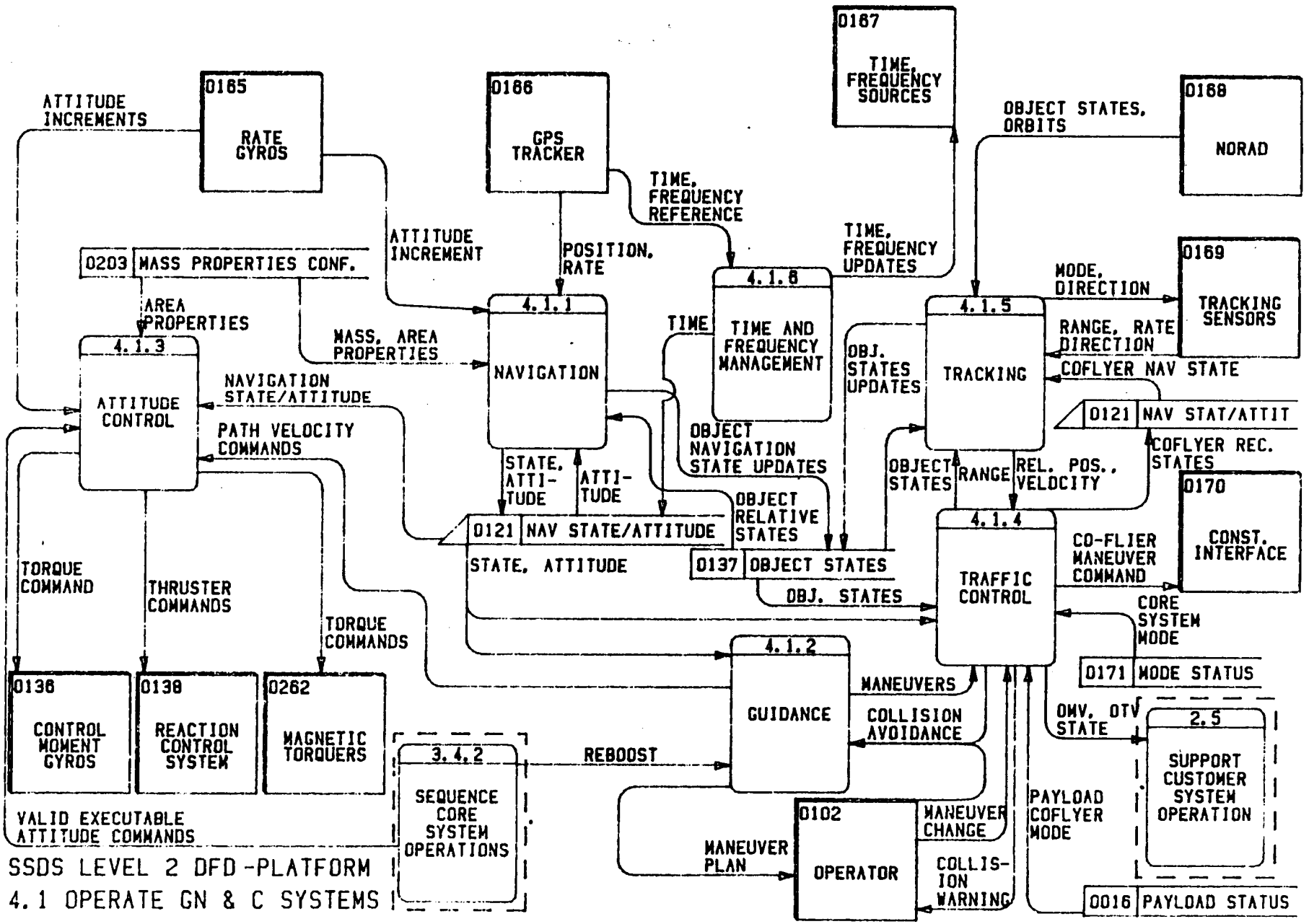
SSDS LEVEL 1 DFD-SPACE STATION
4.0 OPERATE CORE SYSTEMS

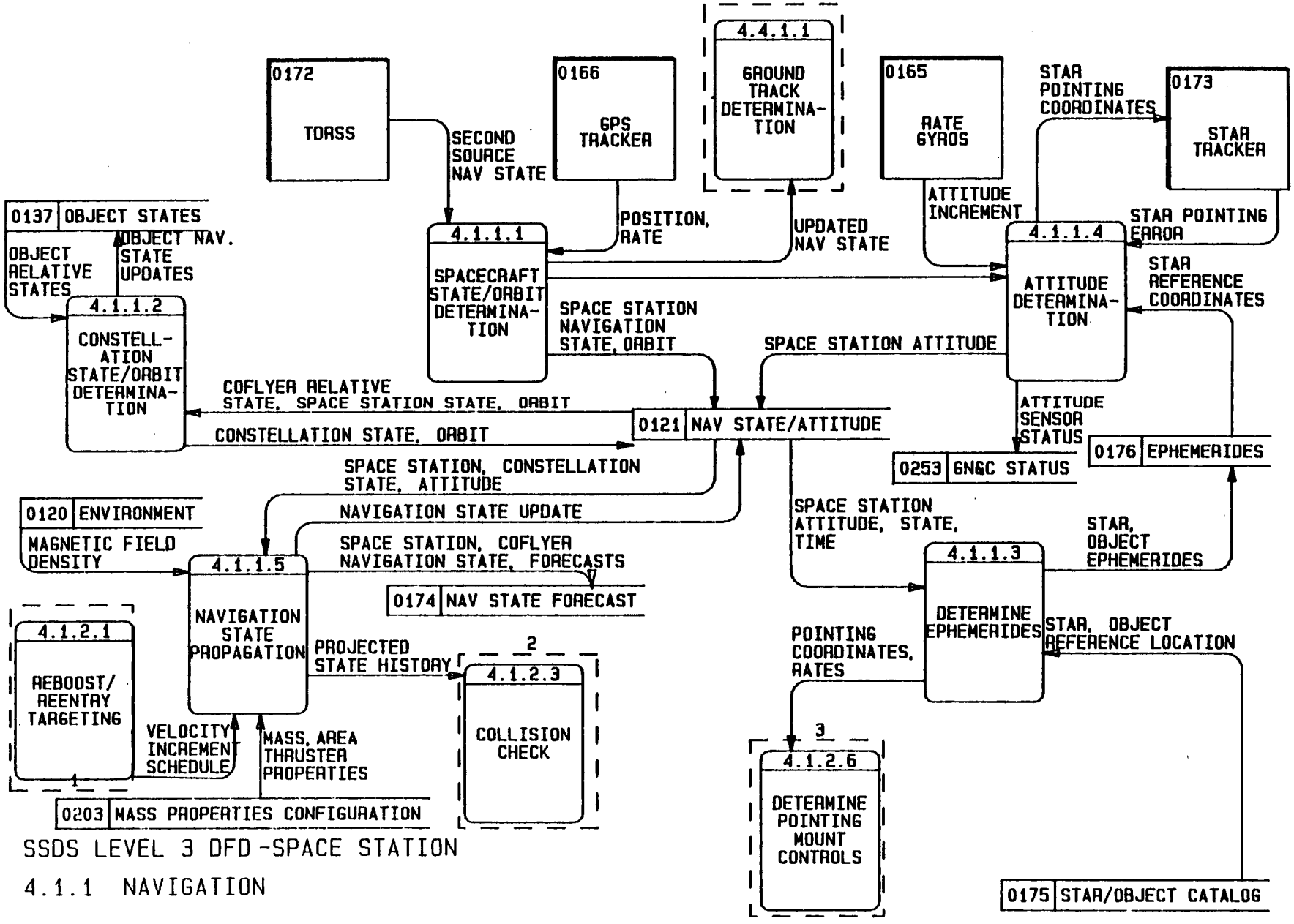


SSDS LEVEL 1 DFD-PLATFORM
4.0 OPERATE CORE SYSTEMS



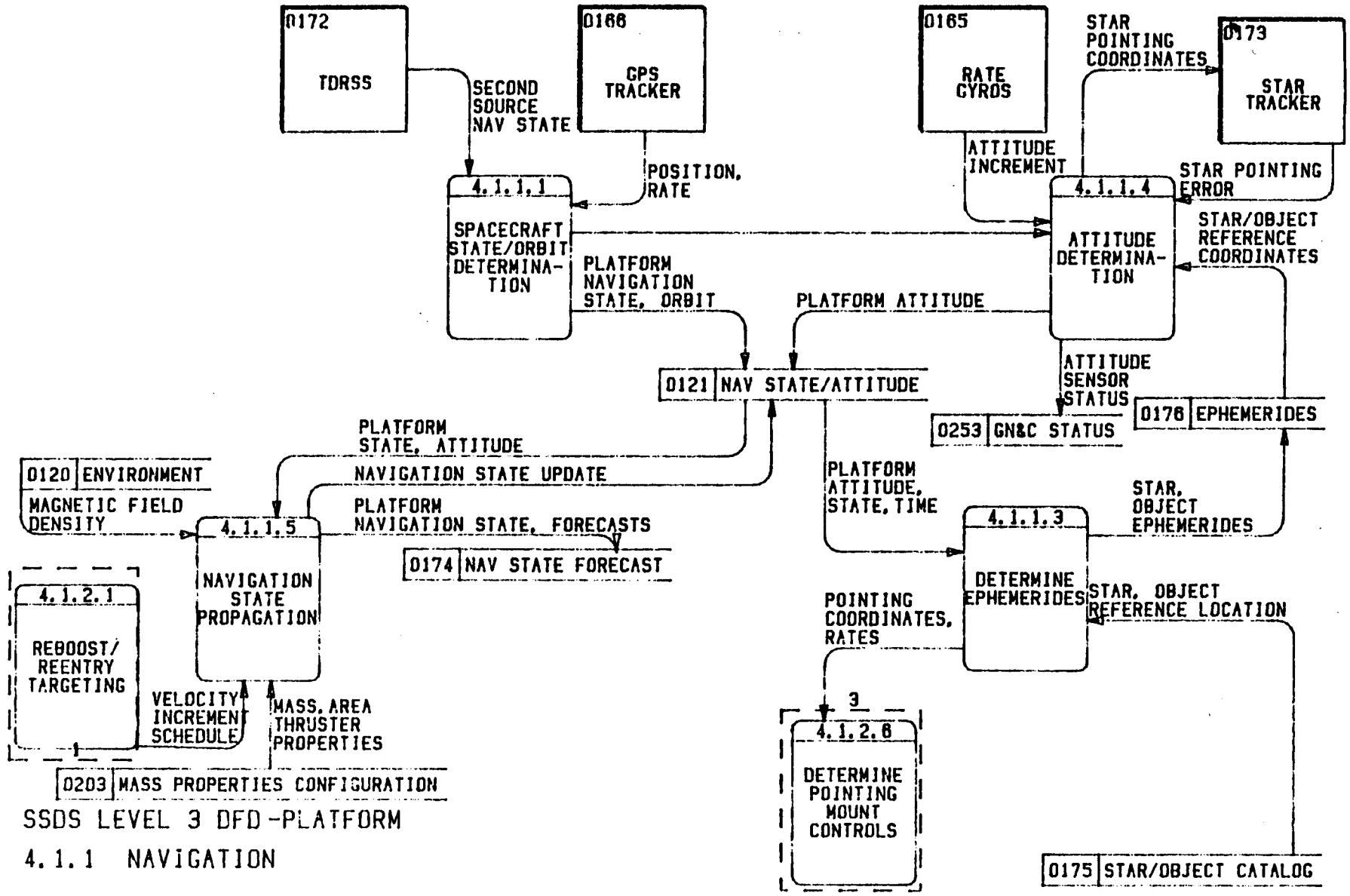
SSDS LEVEL 2 DFD-SPACE STATION
4.1 OPERATE GN & C SYSTEMS


0167
TIME, FREQUENCY SOURCES
0168
NORAD
OBJECT STATES, ORBITS
0165
RATE GYROS
ATTITUDE INCREMENTS
0166
GPS TRACKER
TIME, FREQUENCY REFERENCE
TIME, FREQUENCY UPDATES
0203 MASS PROPERTIES CONF.
ATTITUDE INCREMENT
POSITION, RATE
4.1.6
TIME AND FREQUENCY MANAGEMENT
4.1.5
TRACKING
MODE, DIRECTION
0169
TRACKING SENSORS
RANGE, RATE DIRECTION
COFLYER NAV STATE
AREA PROPERTIES
4.1.1
NAVIGATION
MASS, AREA PROPERTIES
TIME
OBJ. STATES UPDATES
4.1.3
ATTITUDE CONTROL
NAVIGATION STATE/ATTITUDE
PATH VELOCITY COMMANDS
0121 NAV STAT/ATTIT
COFLYER REC. STATES
OBJECT NAVIGATION STATE UPDATES
STATE, ATTI-TUDE
ATTI-TUDE
OBJECT STATES
RANGE
REL. POS., VELOCITY
0170
CONST. INTERFACE
OBJECT RELATIVE STATES
0121 NAV STATE/ATTITUDE
4.1.4
TRAFFIC CONTROL
CO-FLIER MANEUVER COMMAND
STATE, ATTITUDE
0137 OBJECT STATES
OBJ. STATES
TORQUE COMMAND
THRUSTER COMMANDS
TORQUE COMMANDS
CORE SYSTEM MODE
0171 MODE STATUS
4.1.2
GUIDANCE
MANEUVERS
COLLISION AVOIDANCE
OMV, OTV STATE
2.5
SUPPORT CUSTOMER SYSTEM OPERATION
0136
CONTROL MOMENT GYROS
0138
REACTION CONTROL SYSTEM
0262
MAGNETIC TORQUERS
3.4.2
SEQUENCE CORE SYSTEM OPERATIONS
REBOOST
VALID EXECUTABLE ATTITUDE COMMANDS
0102
OPERATOR
MANEUVER CHANGE
PAYLOAD COFLYER MODE
MANEUVER PLAN
COLLIS-ION WARNING
0016 PAYLOAD STATUS
SSDS LEVEL 2 DFD-PLATFORM
4.1 OPERATE GN & C SYSTEMS



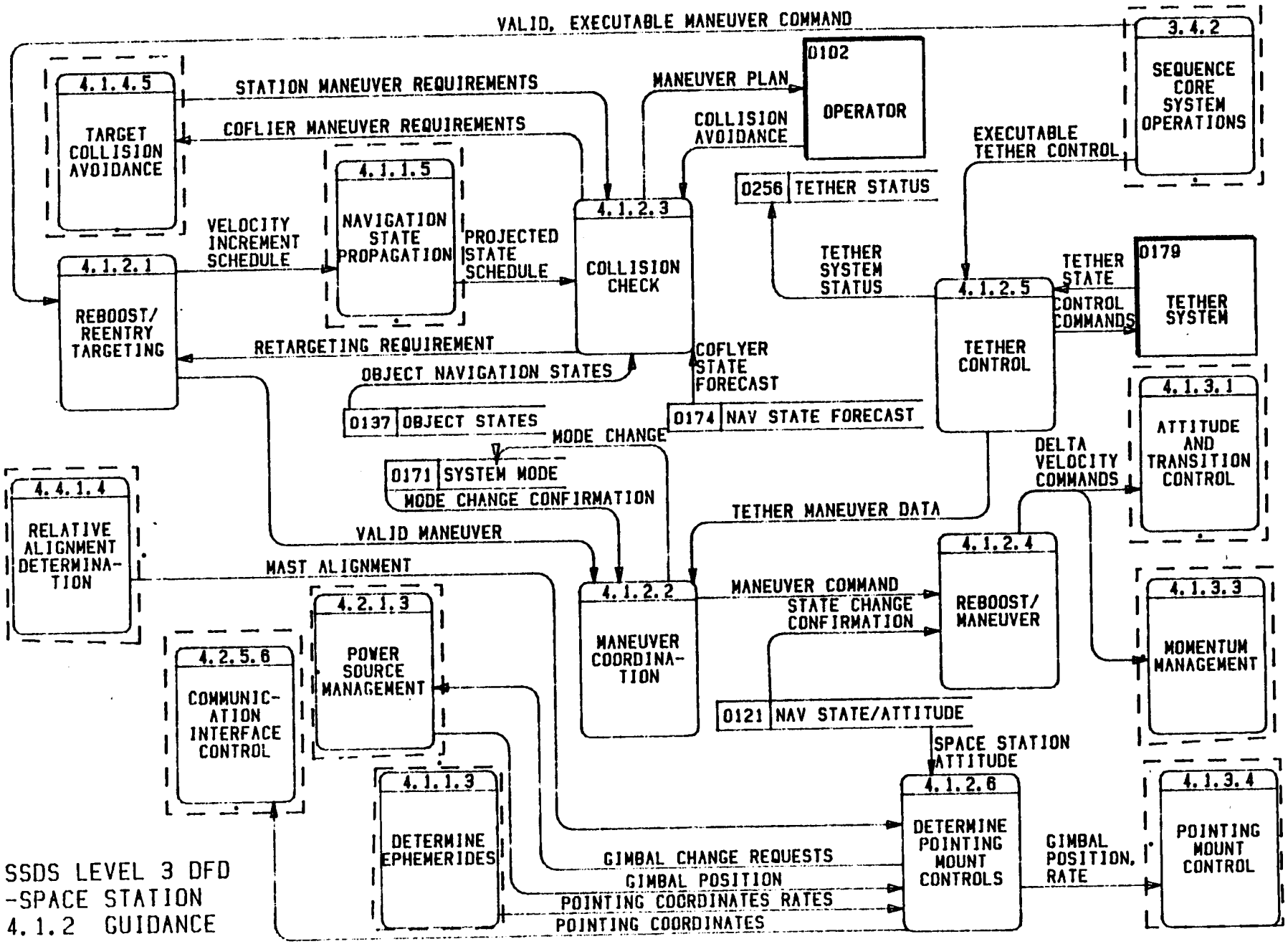
SSDS LEVEL 3 DFD -SPACE STATION

4.1.1 NAVIGATION

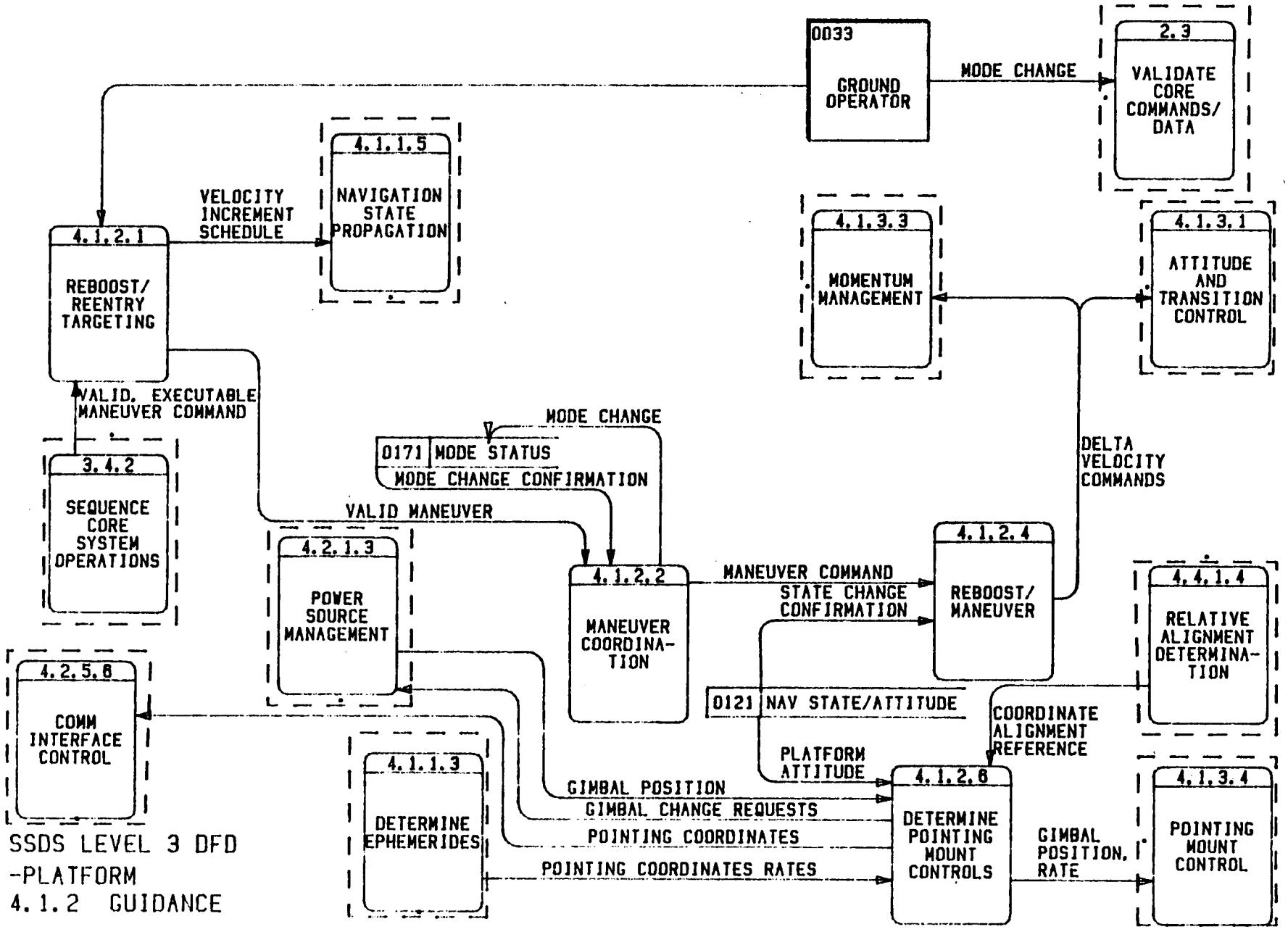


SSDS LEVEL 3 DFD-PLATFORM

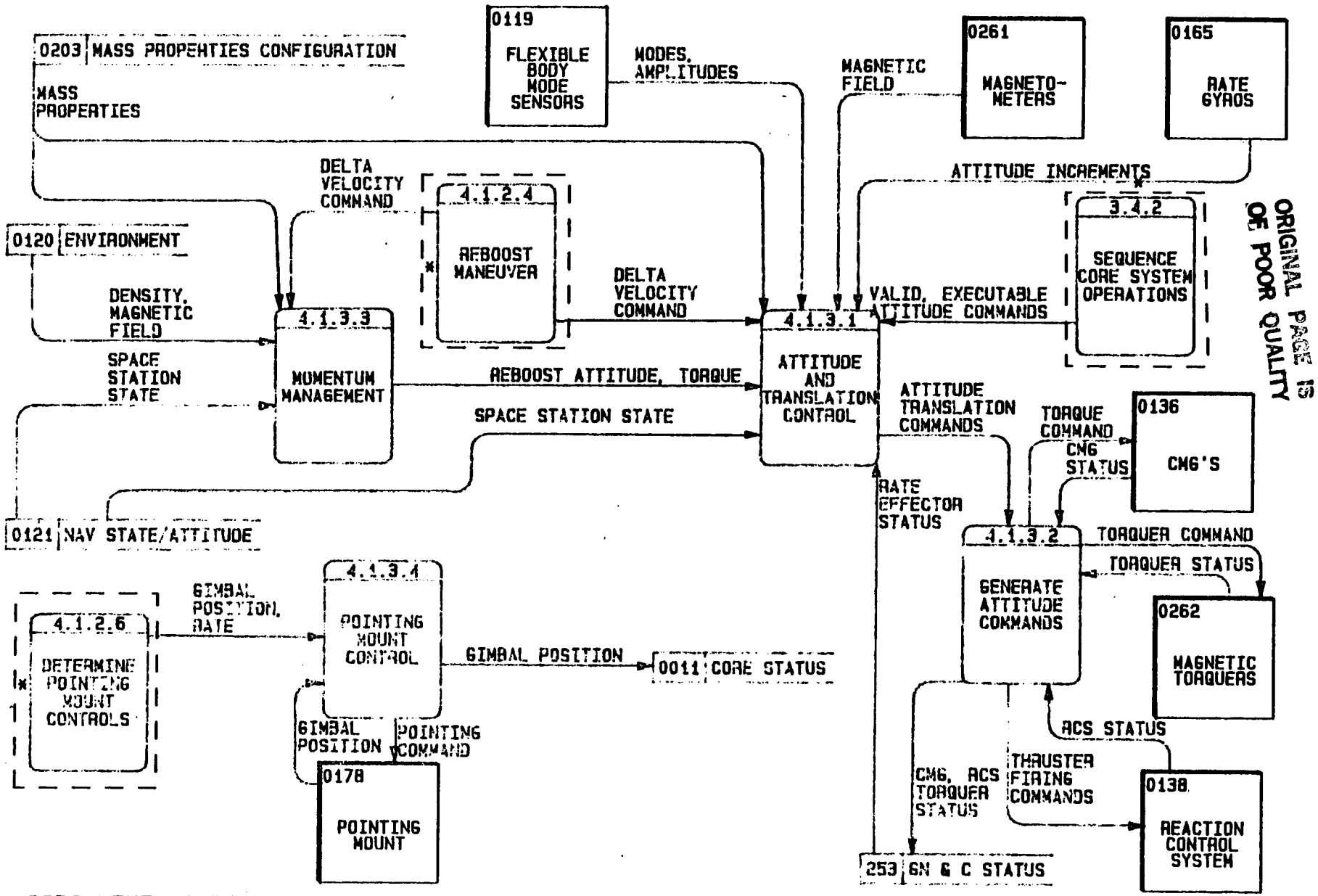
4.1.1 NAVIGATION



SSDS LEVEL 3 DFD
-SPACE STATION
4.1.2 GUIDANCE



SSDS LEVEL 3 DFD
-PLATFORM
4.1.2 GUIDANCE



SSDS LEVEL 3 DFD -SPACE STATION
4.1.3 ATTITUDE CONTROL

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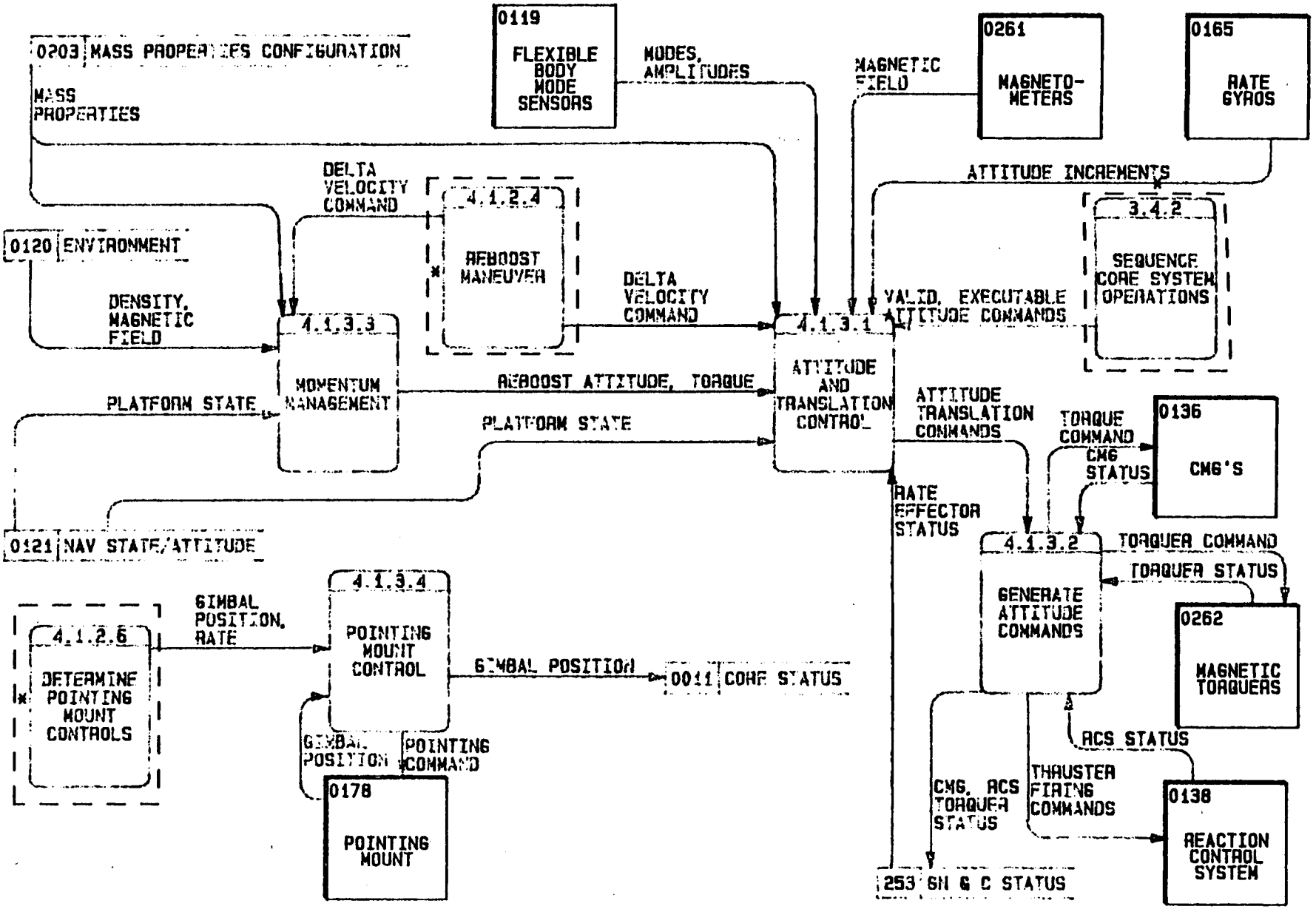
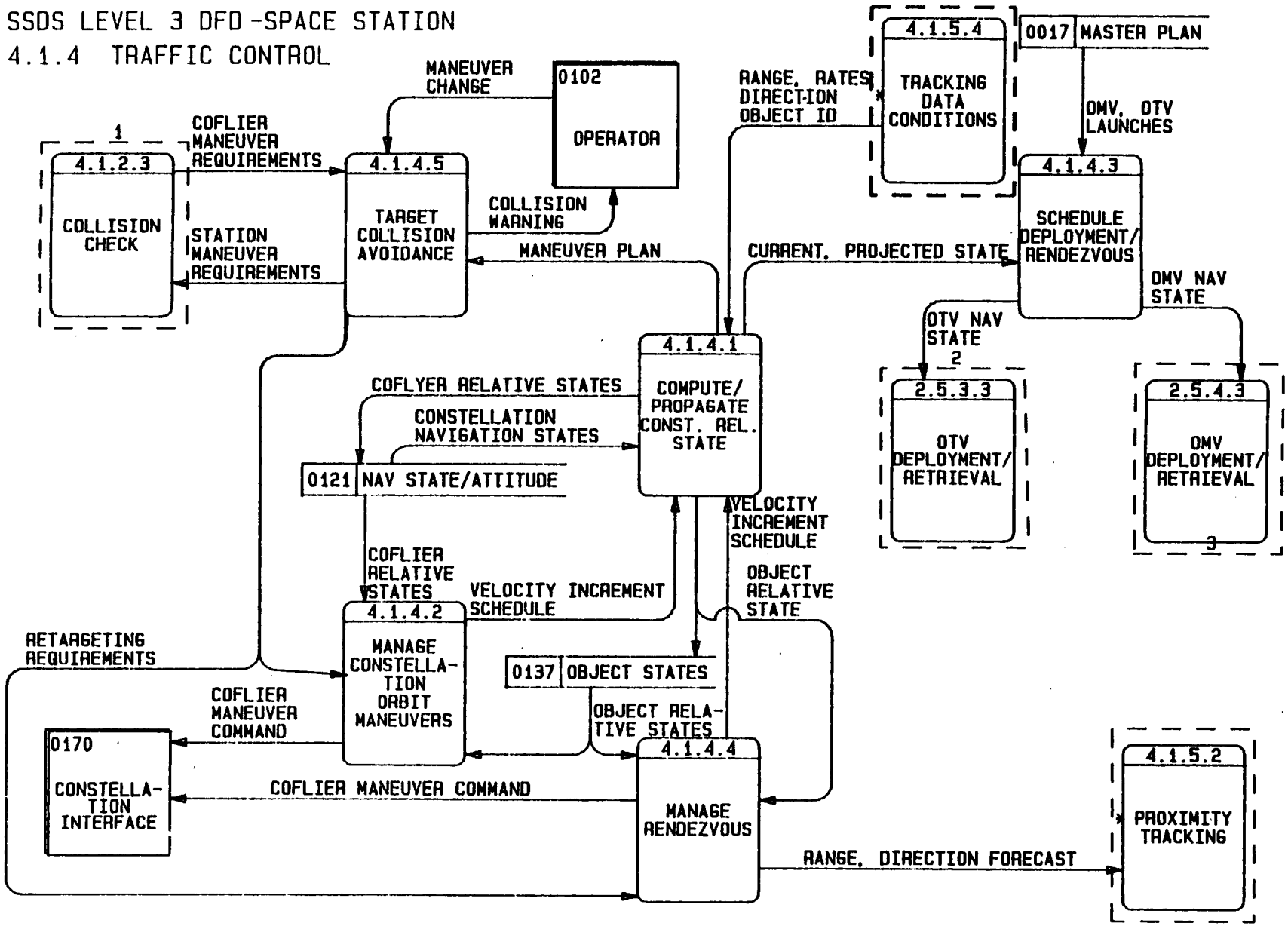
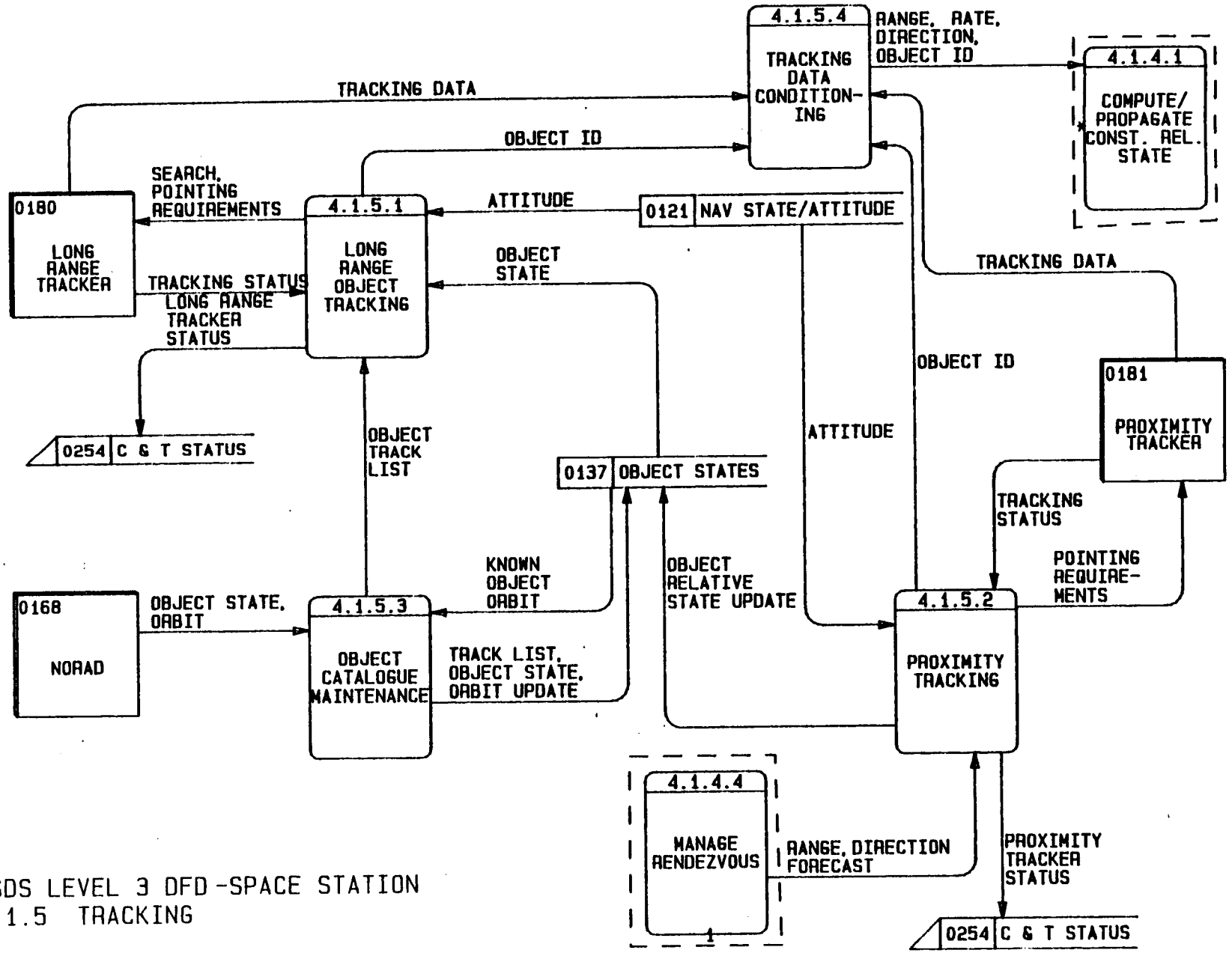


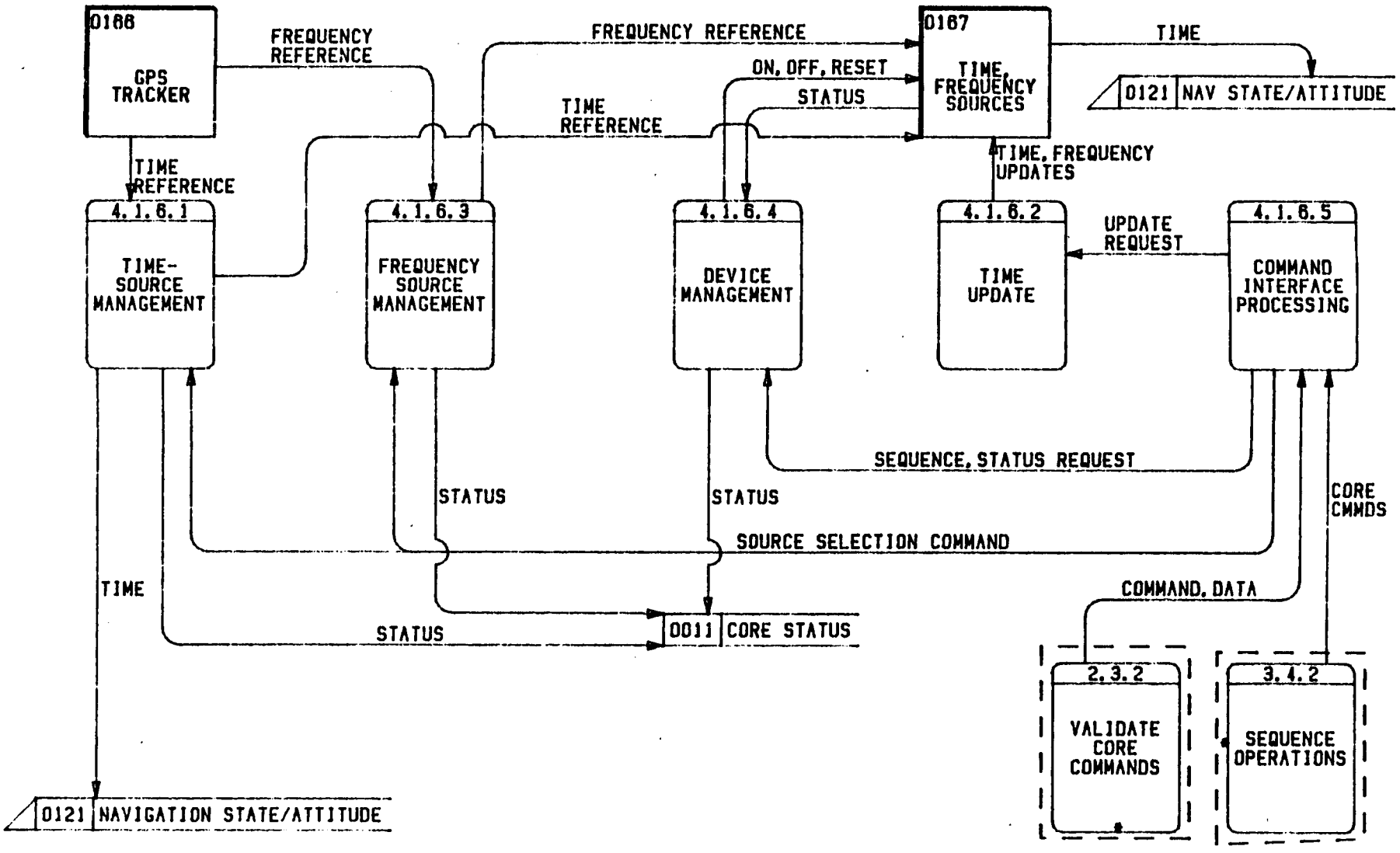
SSDS LEVEL 3 DFD -PLATFORM
4.1.3 ATTITUDE CONTROL

SSDS LEVEL 3 DFD-SPACE STATION
4.1.4 TRAFFIC CONTROL

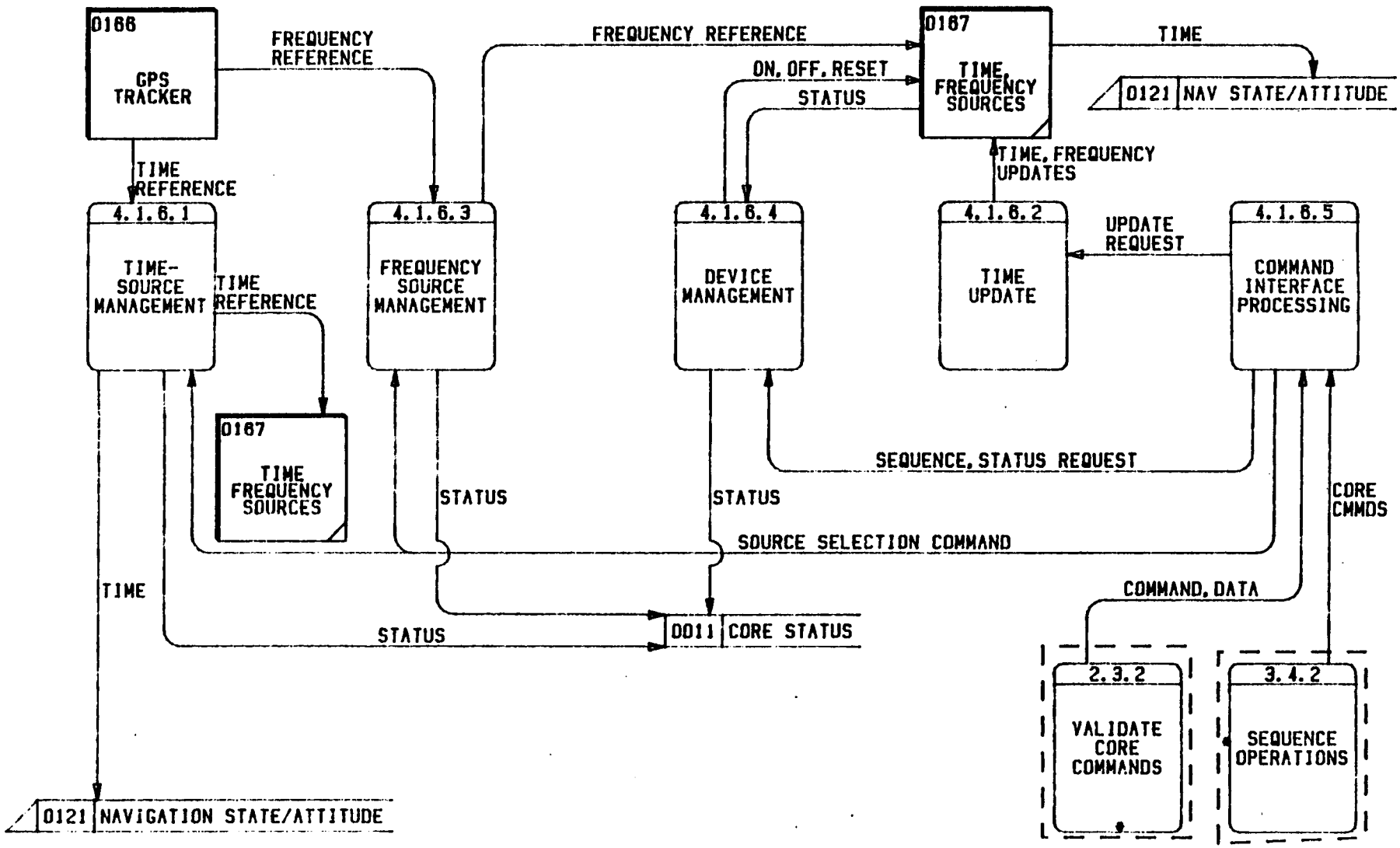




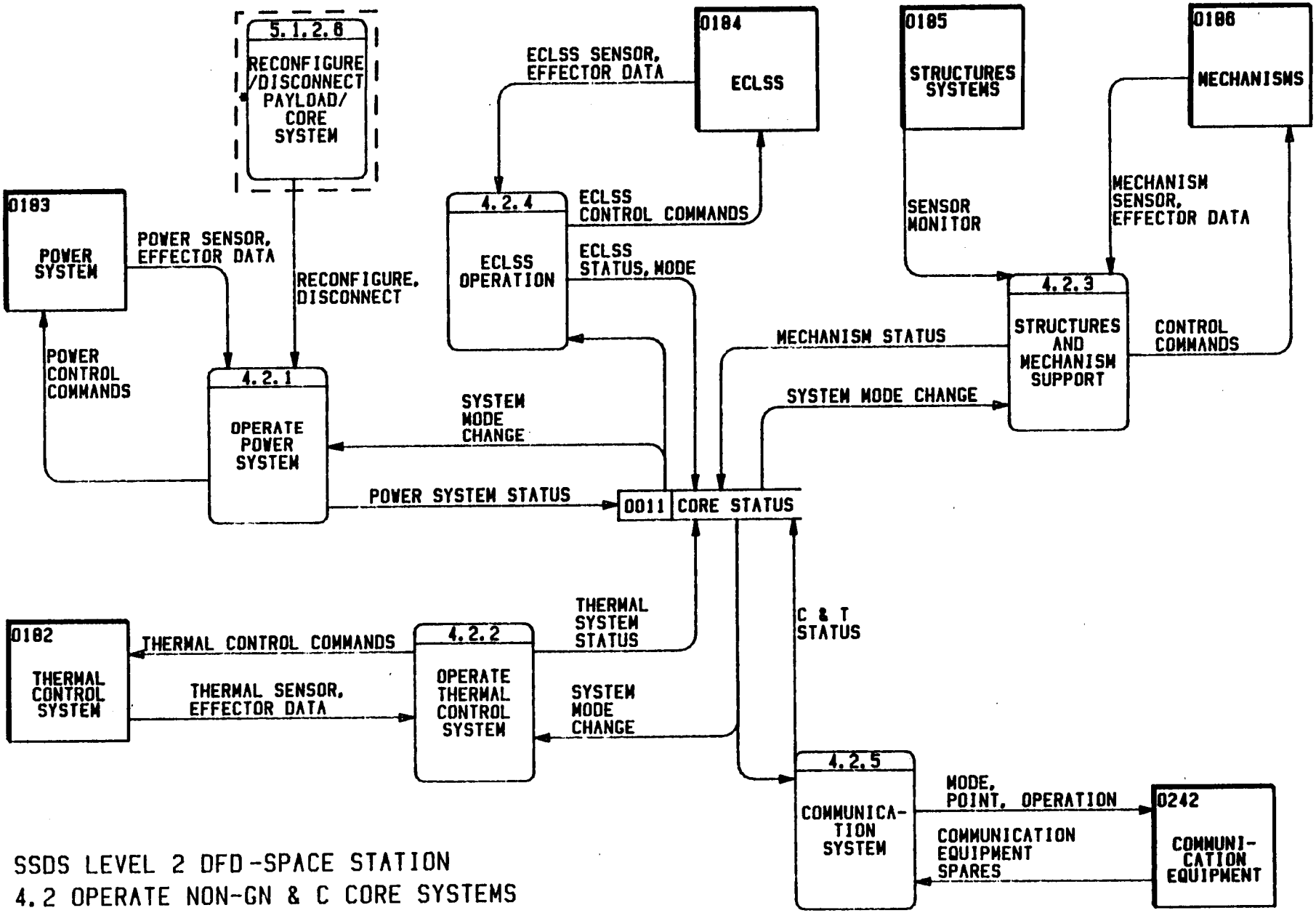
SSDS LEVEL 3 DFD -SPACE STATION
4.1.5 TRACKING



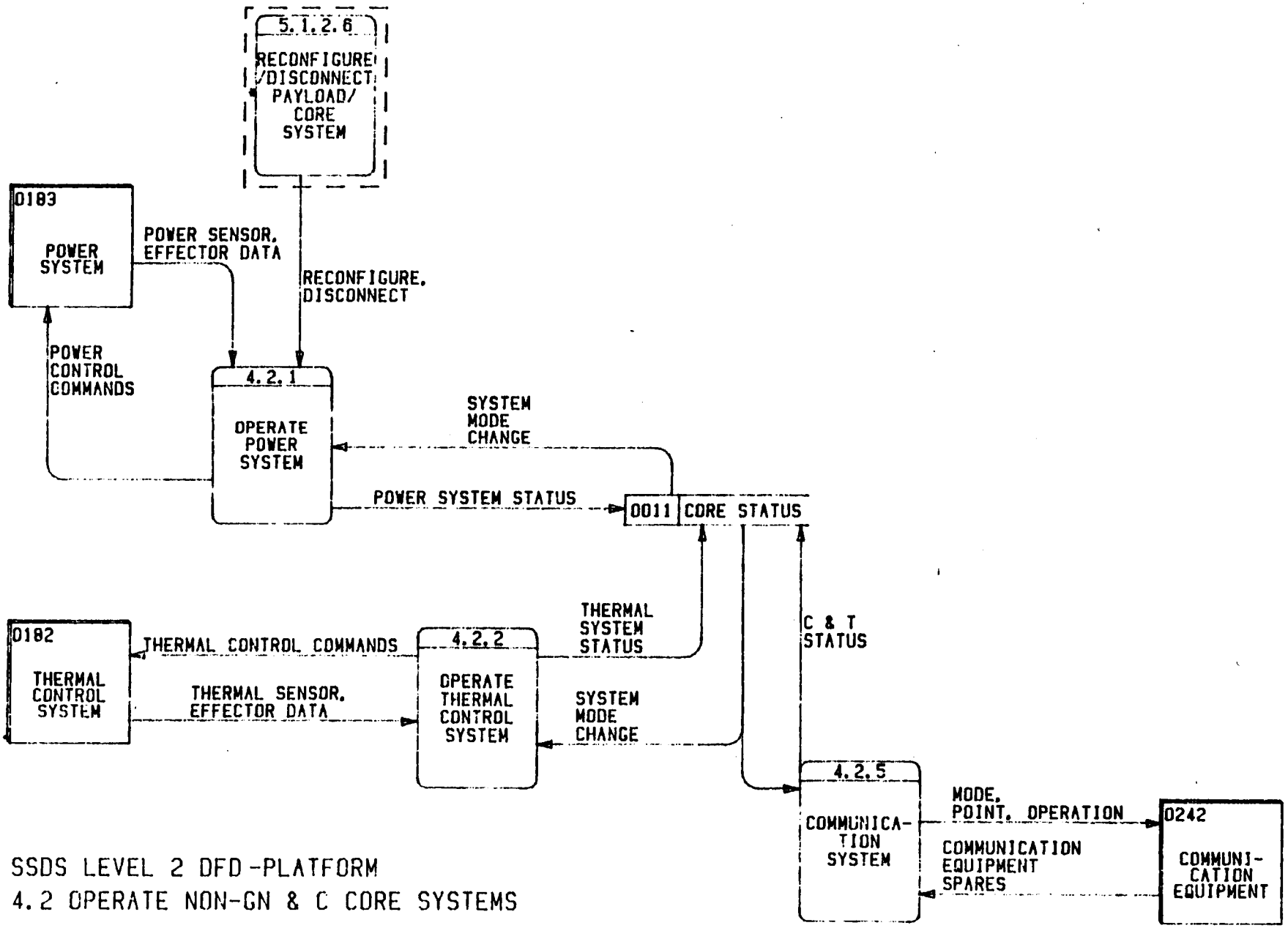
SSDS LEVEL 3 DFD-SPACE STATION
4.1.6 TIME AND FREQUENCY MANAGEMENT



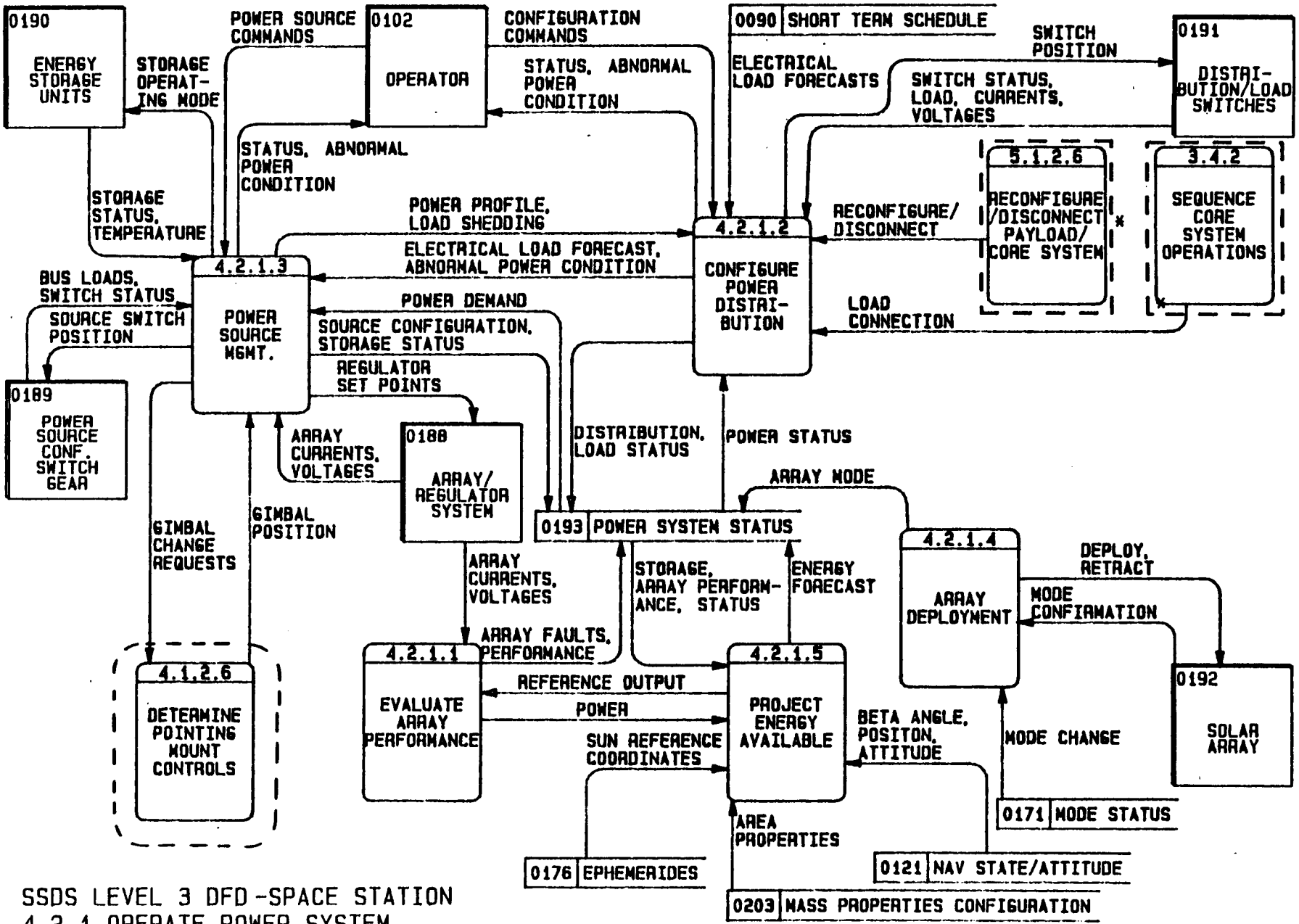
SSDS LEVEL 3 DFD-PLATFORM
4.1.6 TIME AND FREQUENCY MANAGEMENT



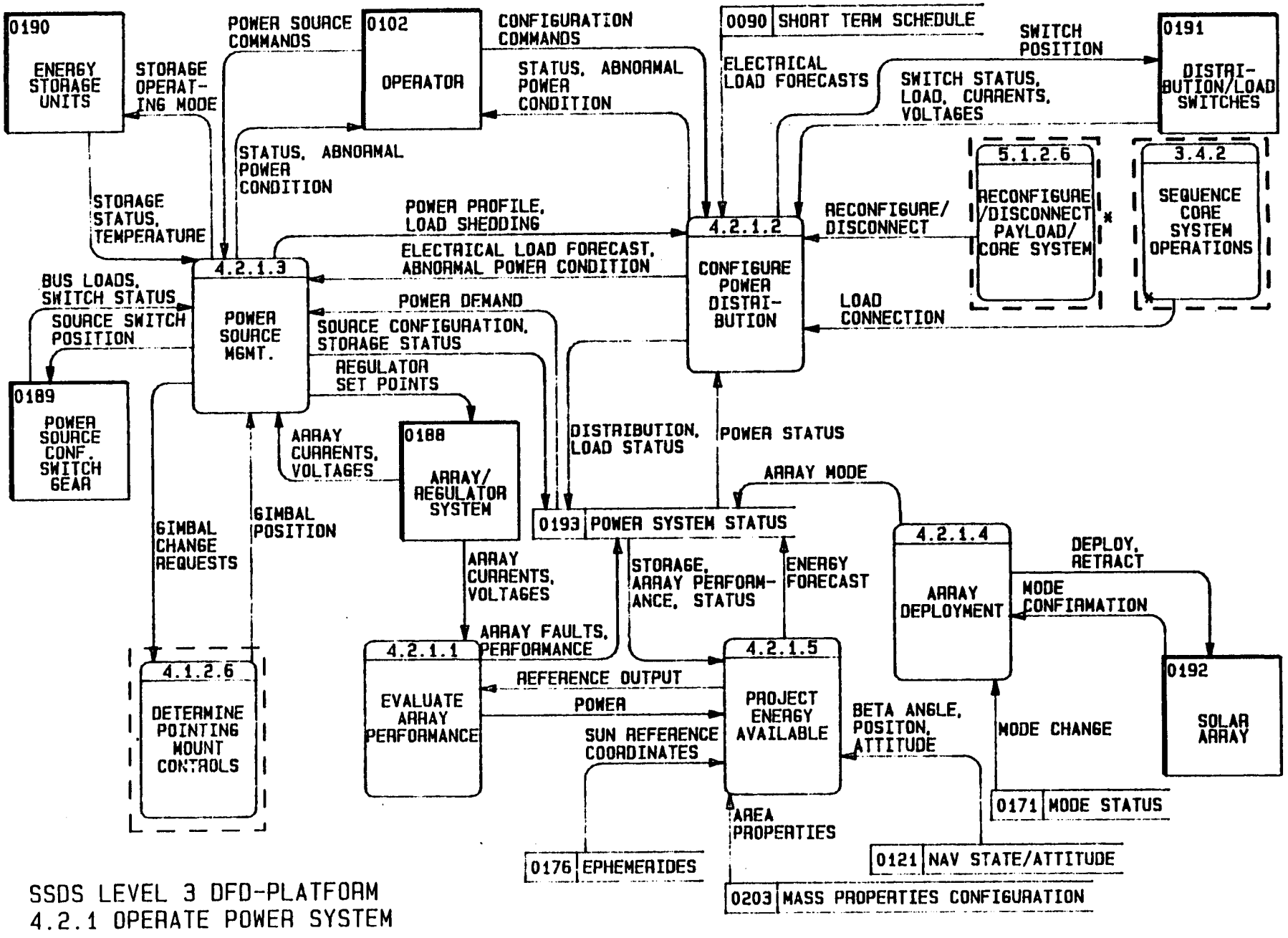
SSDS LEVEL 2 DFD-SPACE STATION
4.2 OPERATE NON-GN & C CORE SYSTEMS



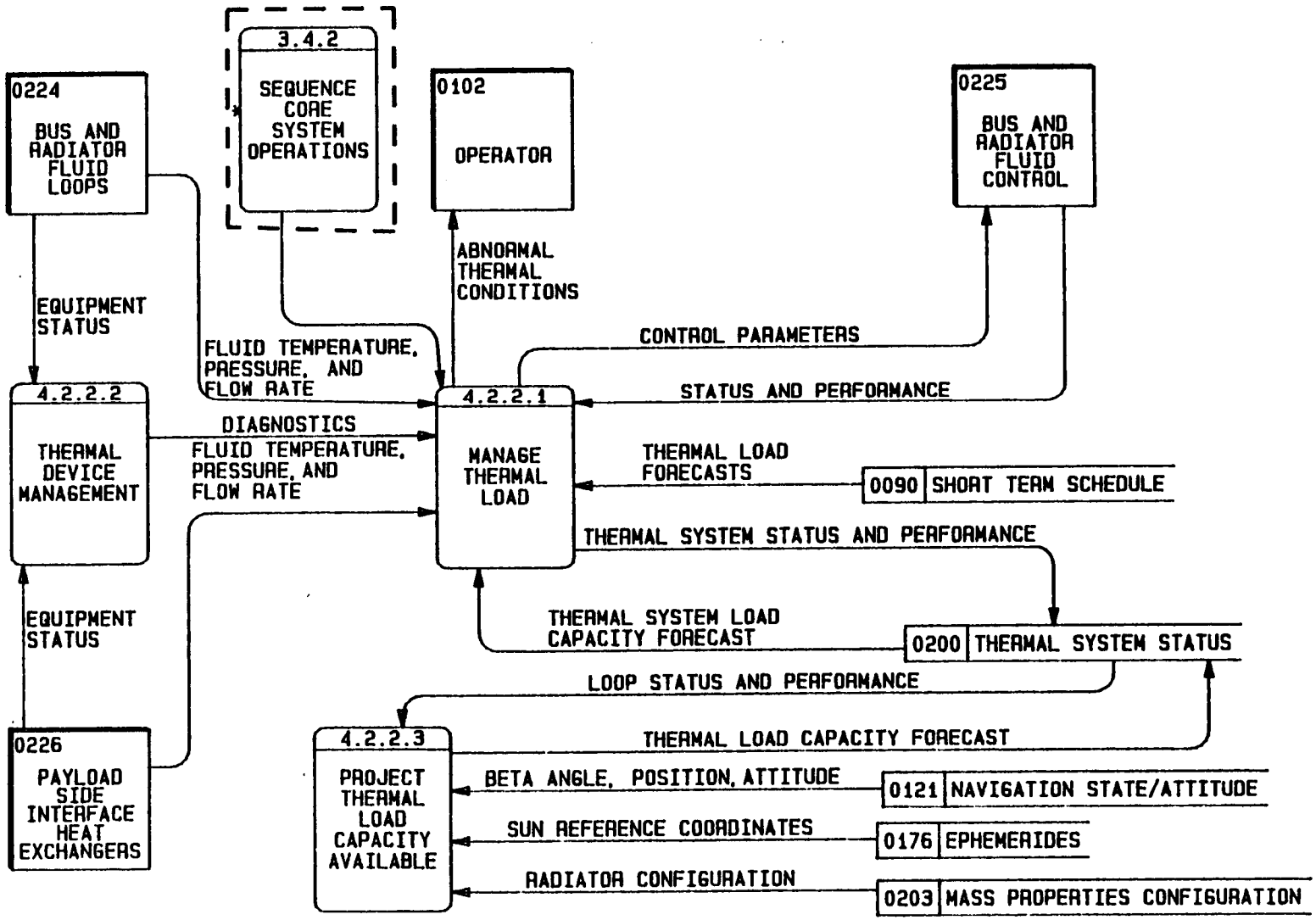
SSDS LEVEL 2 DFD-PLATFORM
4.2 OPERATE NON-GN & C CORE SYSTEMS



SSDS LEVEL 3 DFD -SPACE STATION
4.2.1 OPERATE POWER SYSTEM

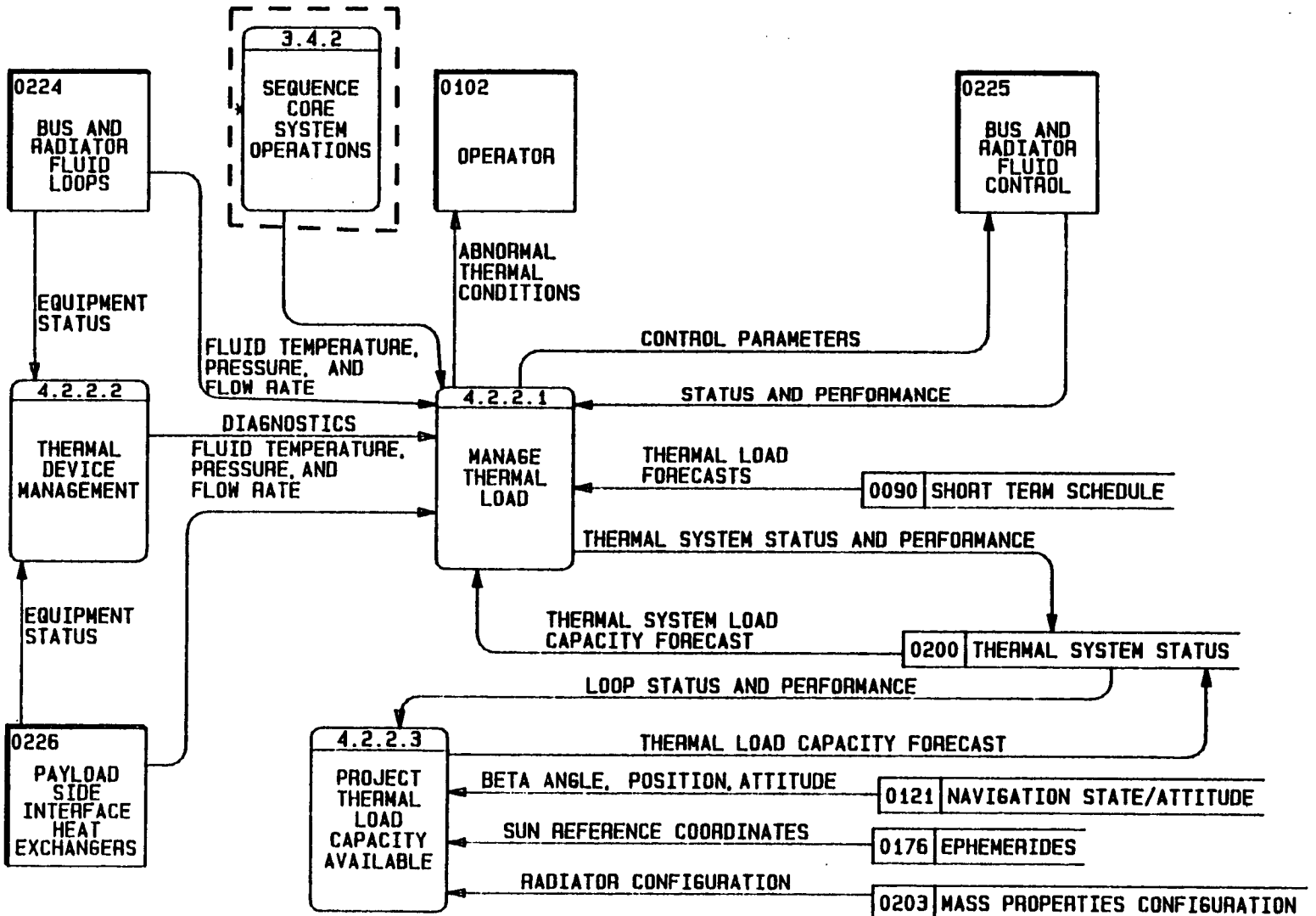


SSDS LEVEL 3 DFD-PLATFORM
4.2.1 OPERATE POWER SYSTEM

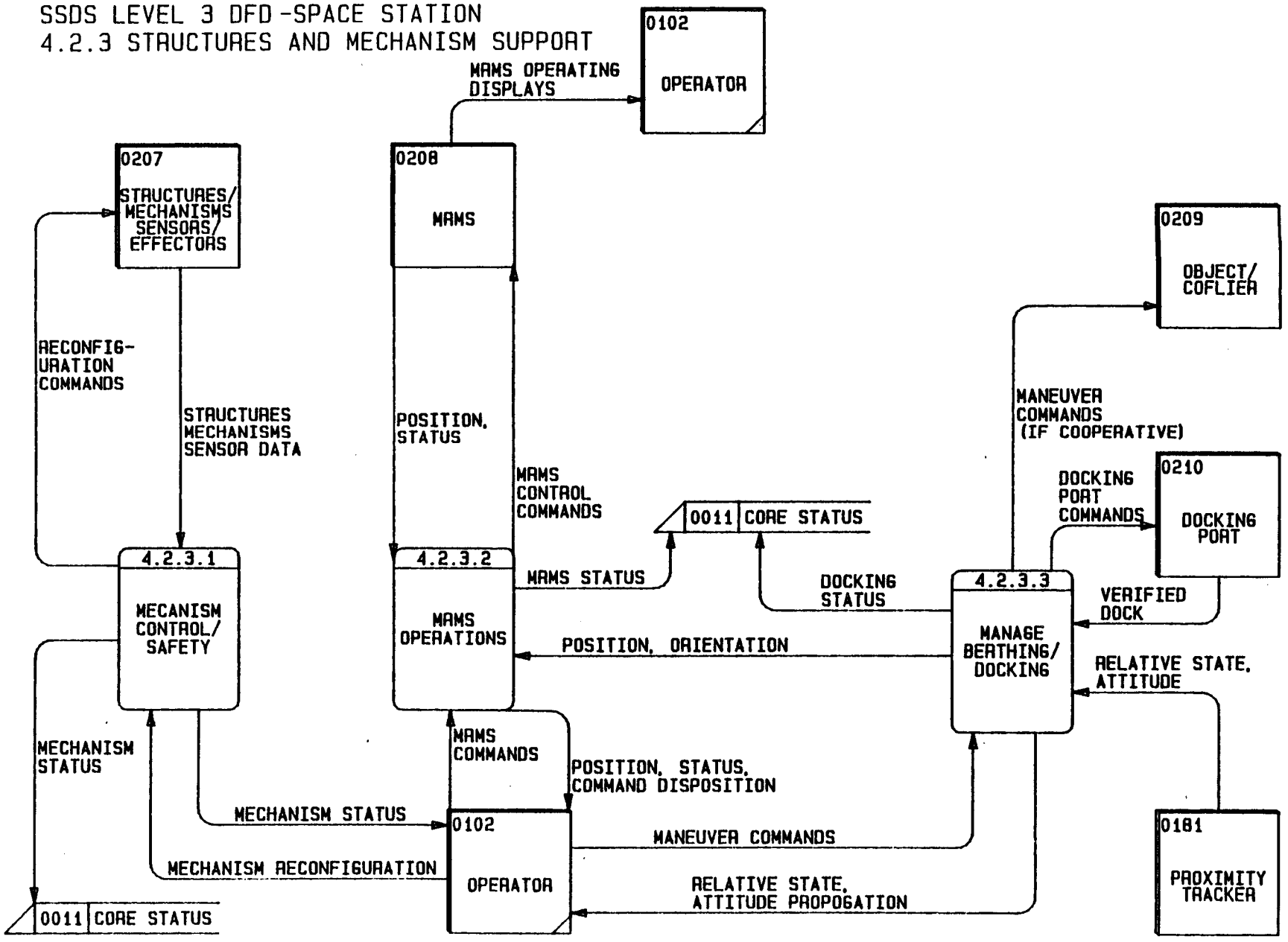


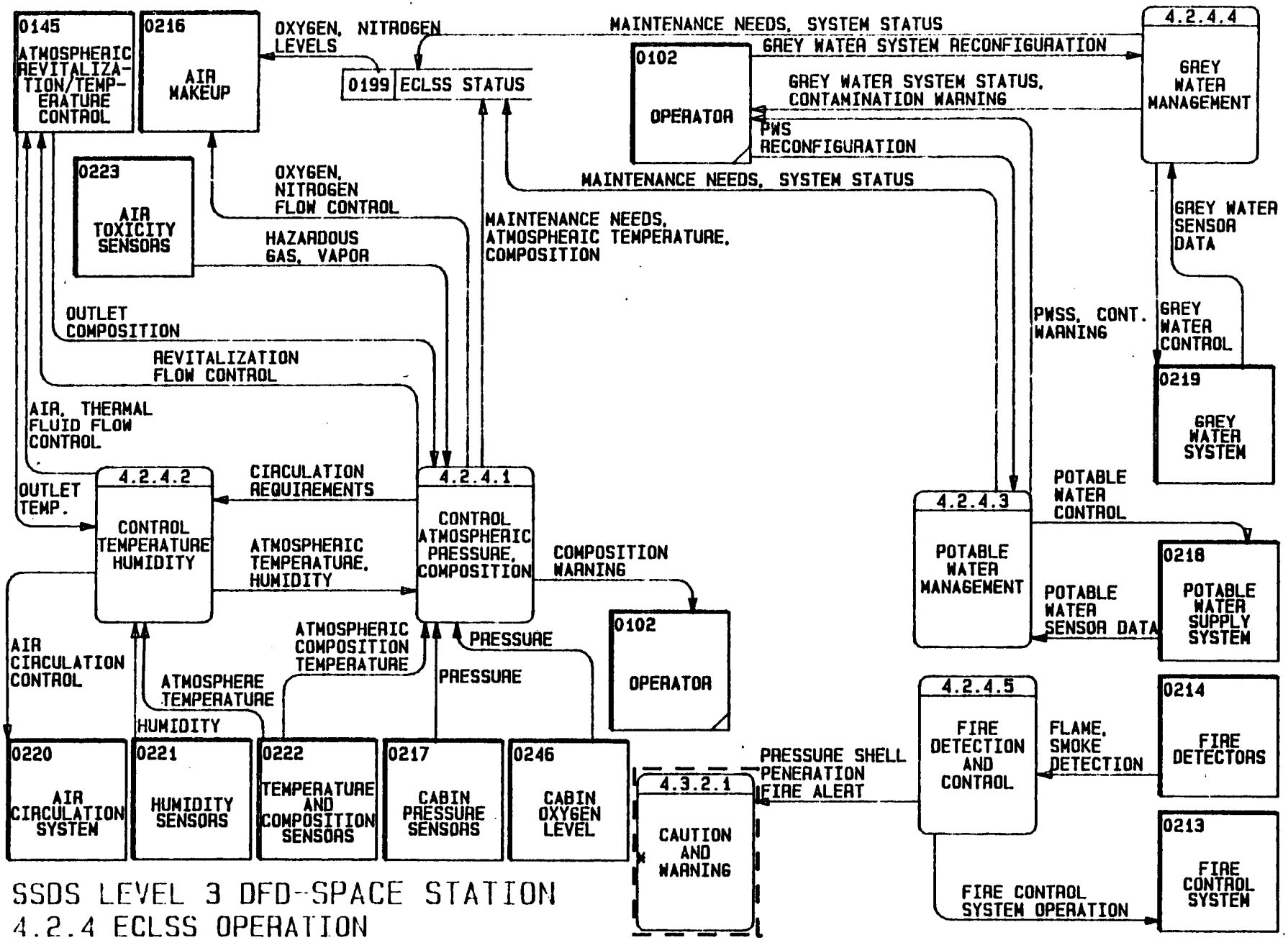
SSDS LEVEL 3 DFD-SPACE STATION
4.2.2 OPERATE THERMAL CONTROL SYSTEM

C-3

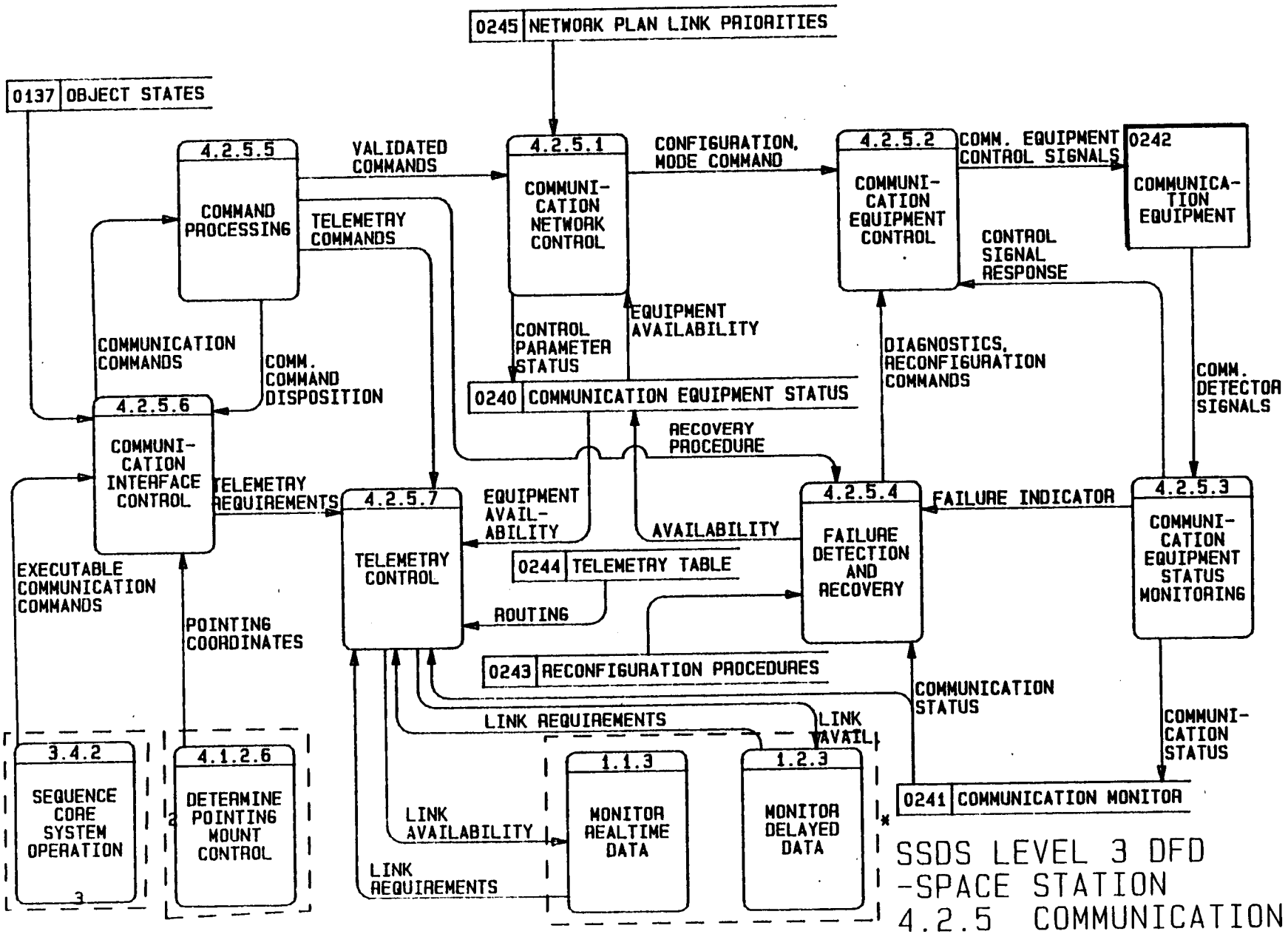


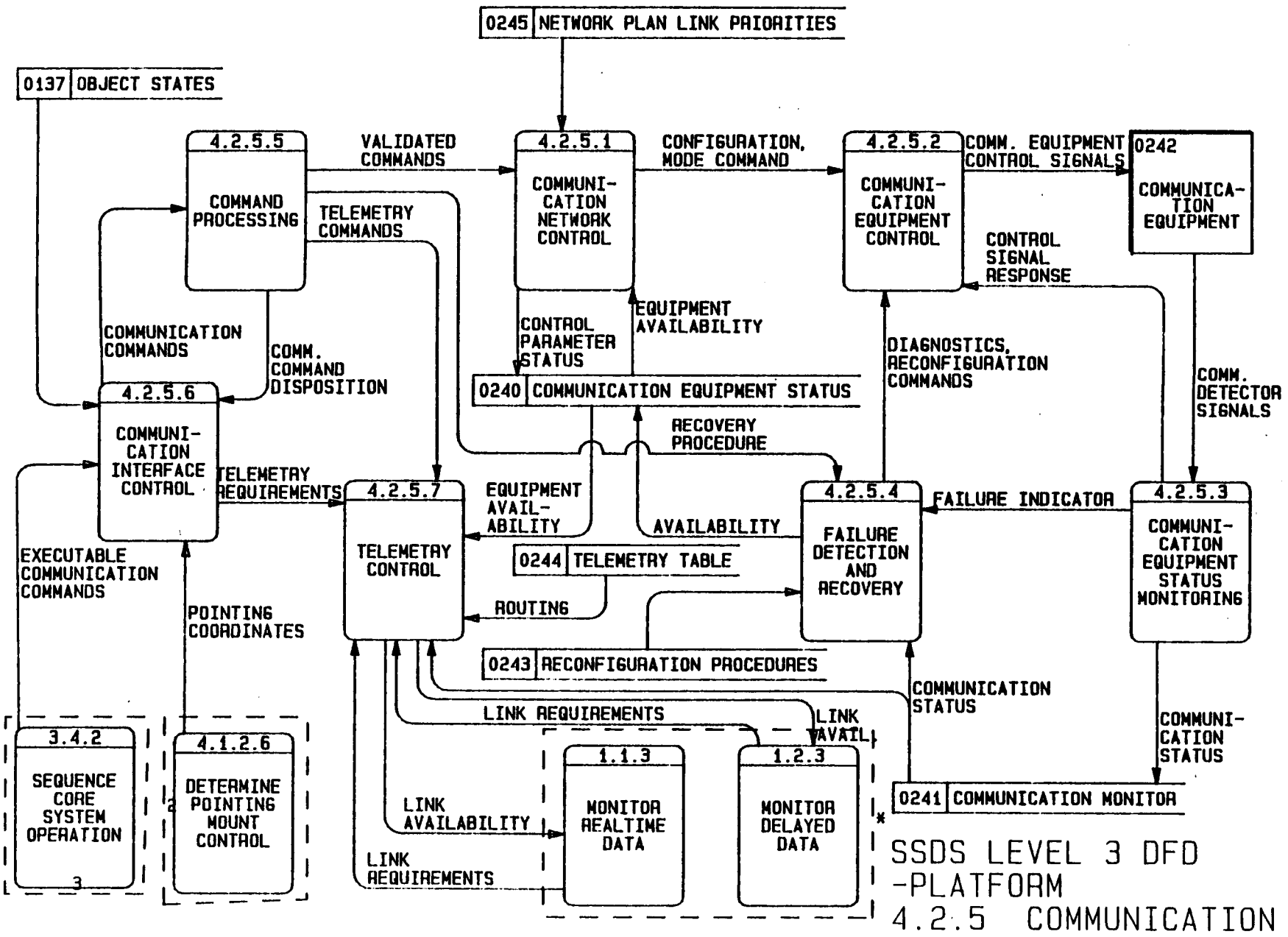
SSDS LEVEL 3 DFD-PLATFORM
4.2.2 OPERATE THERMAL CONTROL SYSTEM


SSDS LEVEL 3 DFD-SPACE STATION
4.2.3 STRUCTURES AND MECHANISM SUPPORT
0102
OPERATOR
MRMS OPERATING DISPLAYS
0207
STRUCTURES/ MECHANISMS SENSORS/ EFFECTORS
0208
MRMS
0209
OBJECT/ COFLIER
RECONFIG-URATION COMMANDS
STRUCTURES MECHANISMS SENSOR DATA
POSITION, STATUS
MRMS CONTROL COMMANDS
MANEUVER COMMANDS (IF COOPERATIVE)
0011 CORE STATUS
DOCKING PORT COMMANDS
0210
DOCKING PORT
4.2.3.1
MECANISM CONTROL/ SAFETY
4.2.3.2
MRMS OPERATIONS
MRMS STATUS
DOCKING STATUS
4.2.3.3
MANAGE BERTHING/ DOCKING
VERIFIED DOCK
POSITION, ORIENTATION
RELATIVE STATE, ATTITUDE
MECHANISM STATUS
MRMS COMMANDS
POSITION, STATUS, COMMAND DISPOSITION
MECHANISM STATUS
0102
OPERATOR
MANEUVER COMMANDS
0181
PROXIMITY TRACKER
MECHANISM RECONFIGURATION
RELATIVE STATE, ATTITUDE PROPOGATION
0011 CORE STATUS



SSDS LEVEL 3 DFD-SPACE STATION
4.2.4 ECLSS OPERATION


0245 NETWORK PLAN LINK PRIORITIES
0137 OBJECT STATES
4.2.5.5 COMMAND PROCESSING
VALIDATED COMMANDS
4.2.5.1 COMMUNI-CATION NETWORK CONTROL
CONFIGURATION, MODE COMMAND
4.2.5.2 COMMUNI-CATION EQUIPMENT CONTROL
COMM. EQUIPMENT CONTROL SIGNALS
0242 COMMUNICA-TION EQUIPMENT
TELEMETRY COMMANDS
CONTROL SIGNAL RESPONSE
COMMUNICATION COMMANDS
COMM. COMMAND DISPOSITION
CONTROL PARAMETER STATUS
EQUIPMENT AVAILABILITY
DIAGNOSTICS, RECONFIGURATION COMMANDS
COMM. DETECTOR SIGNALS
0240 COMMUNICATION EQUIPMENT STATUS
RECOVERY PROCEDURE
4.2.5.6 COMMUNI-CATION INTERFACE CONTROL
TELEMETRY REQUIREMENTS
4.2.5.7 TELEMETRY CONTROL
EQUIPMENT AVAIL-ABILITY
AVAILABILITY
4.2.5.4 FAILURE DETECTION AND RECOVERY
FAILURE INDICATOR
4.2.5.3 COMMUNI-CATION EQUIPMENT STATUS MONITORING
0244 TELEMETRY TABLE
EXECUTABLE COMMUNICATION COMMANDS
POINTING COORDINATES
ROUTING
0243 RECONFIGURATION PROCEDURES
COMMUNICATION STATUS
LINK REQUIREMENTS
LINK AVAIL
COMMUNI-CATION STATUS
3.4.2 SEQUENCE CORE SYSTEM OPERATION
4.1.2.6 DETERMINE POINTING MOUNT CONTROL
1.1.3 MONITOR REALTIME DATA
1.2.3 MONITOR DELAYED DATA
0241 COMMUNICATION MONITOR
LINK AVAILABILITY
LINK REQUIREMENTS
SSDS LEVEL 3 DFD
-SPACE STATION
4.2.5 COMMUNICATION


0245 NETWORK PLAN LINK PRIORITIES
0137 OBJECT STATES
4.2.5.5 COMMAND PROCESSING
VALIDATED COMMANDS
4.2.5.1 COMMUNI-CATION NETWORK CONTROL
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0242 COMMUNICA-TION EQUIPMENT
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CONTROL SIGNAL RESPONSE
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CONTROL PARAMETER STATUS
EQUIPMENT AVAILABILITY
DIAGNOSTICS, RECONFIGURATION COMMANDS
COMM. DETECTOR SIGNALS
0240 COMMUNICATION EQUIPMENT STATUS
4.2.5.6 COMMUNI-CATION INTERFACE CONTROL
RECOVERY PROCEDURE
TELEMETRY REQUIREMENTS
4.2.5.7 TELEMETRY CONTROL
EQUIPMENT AVAIL-ABILITY
AVAILABILITY
4.2.5.4 FAILURE DETECTION AND RECOVERY
FAILURE INDICATOR
4.2.5.3 COMMUNI-CATION EQUIPMENT STATUS MONITORING
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0244 TELEMETRY TABLE
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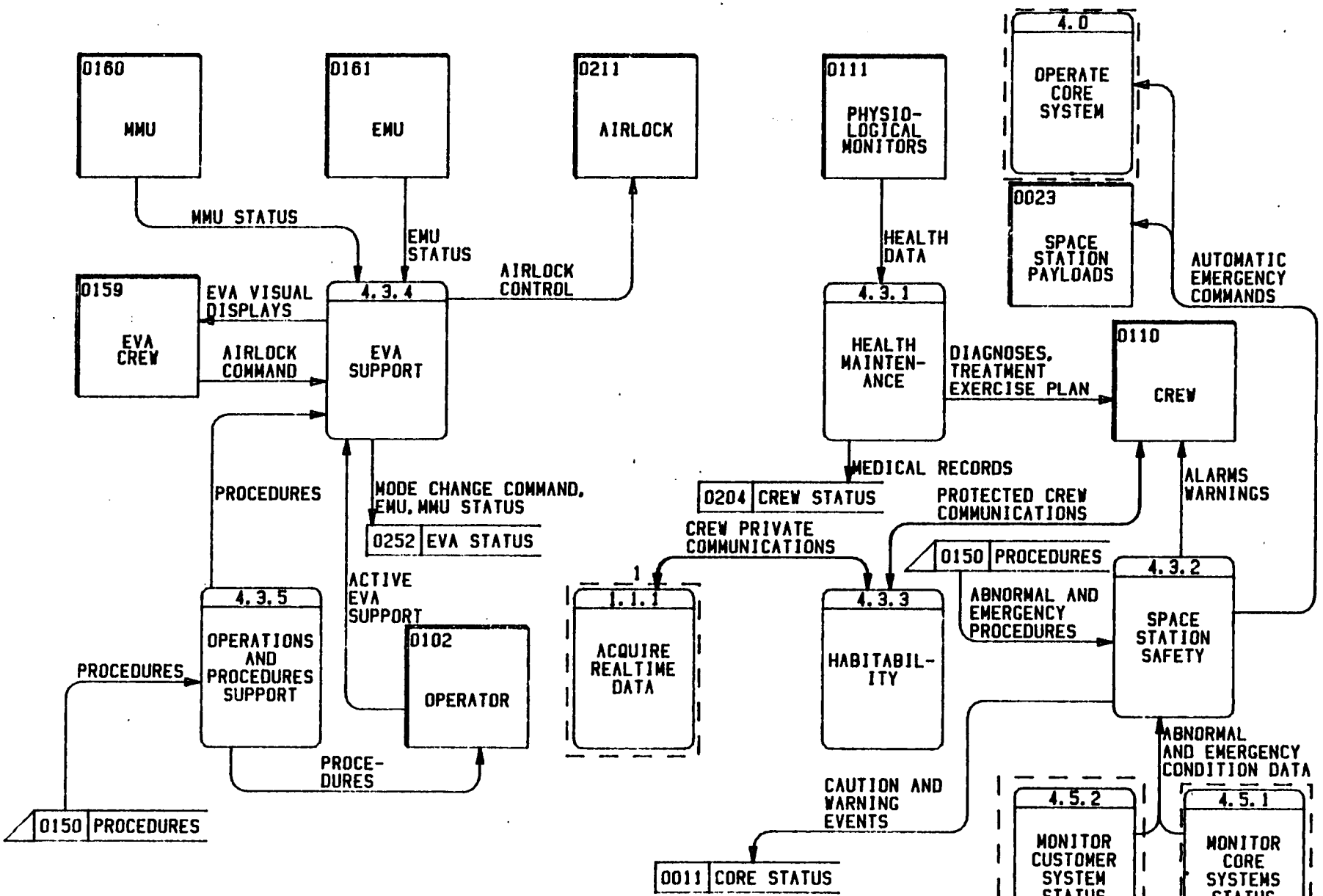
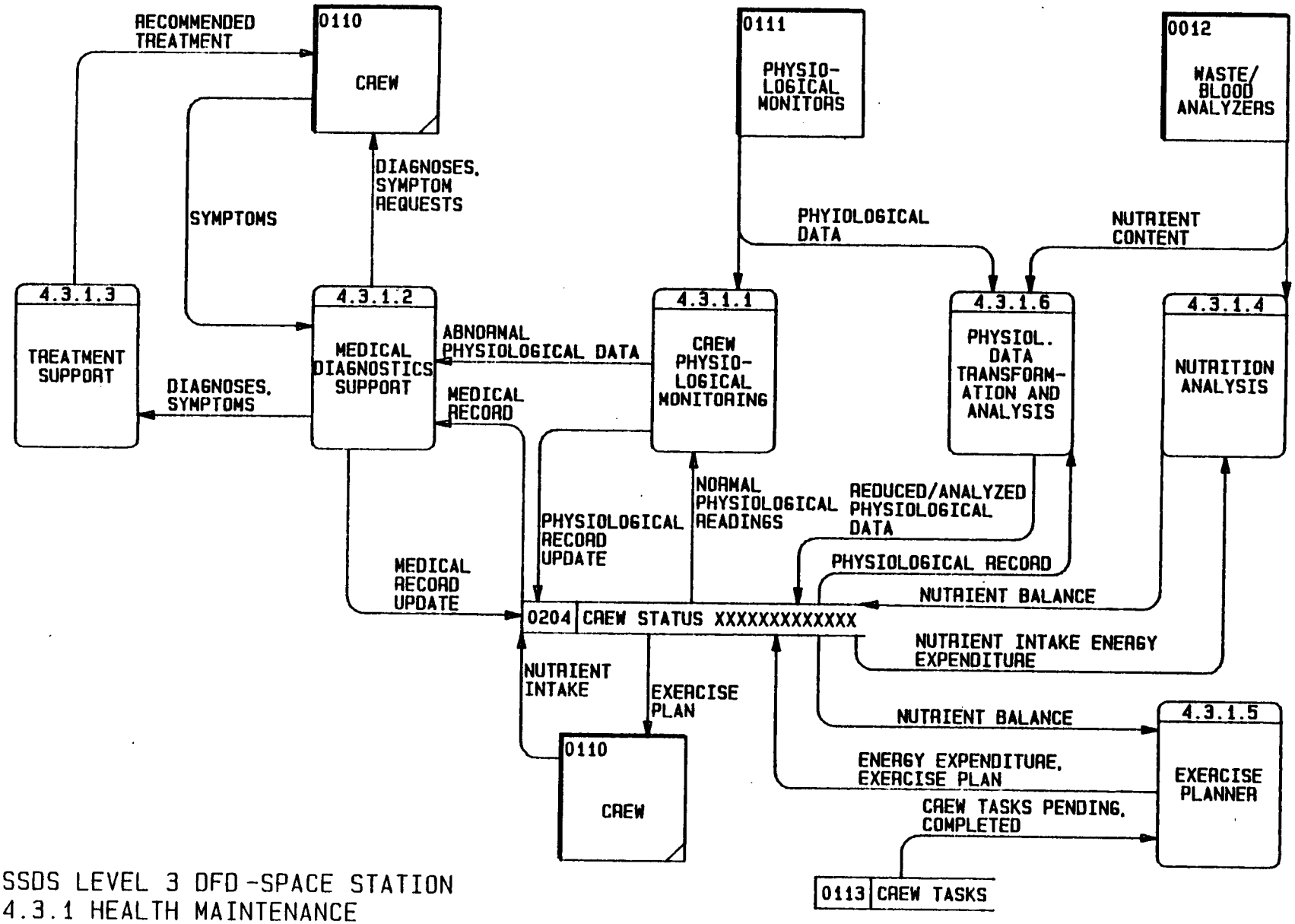
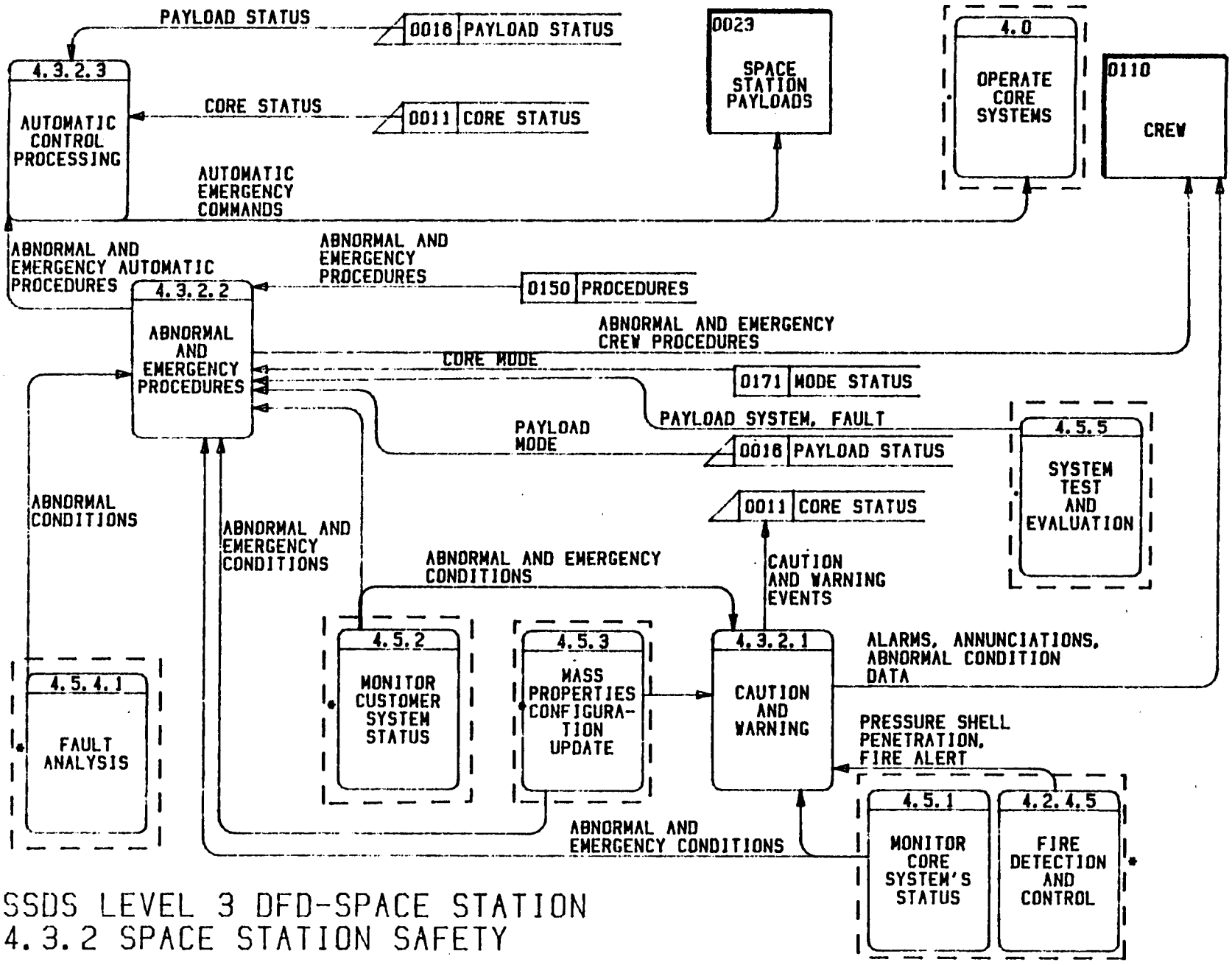
LINK REQUIREMENTS
LINK AVAIL
COMMUNI-CATION STATUS
3.4.2 SEQUENCE CORE SYSTEM OPERATION
4.1.2.6 DETERMINE POINTING MOUNT CONTROL
1.1.3 MONITOR REALTIME DATA
1.2.3 MONITOR DELAYED DATA
0241 COMMUNICATION MONITOR
LINK AVAILABILITY
LINK REQUIREMENTS
SSDS LEVEL 3 DFD
-PLATFORM
4.2.5 COMMUNICATION



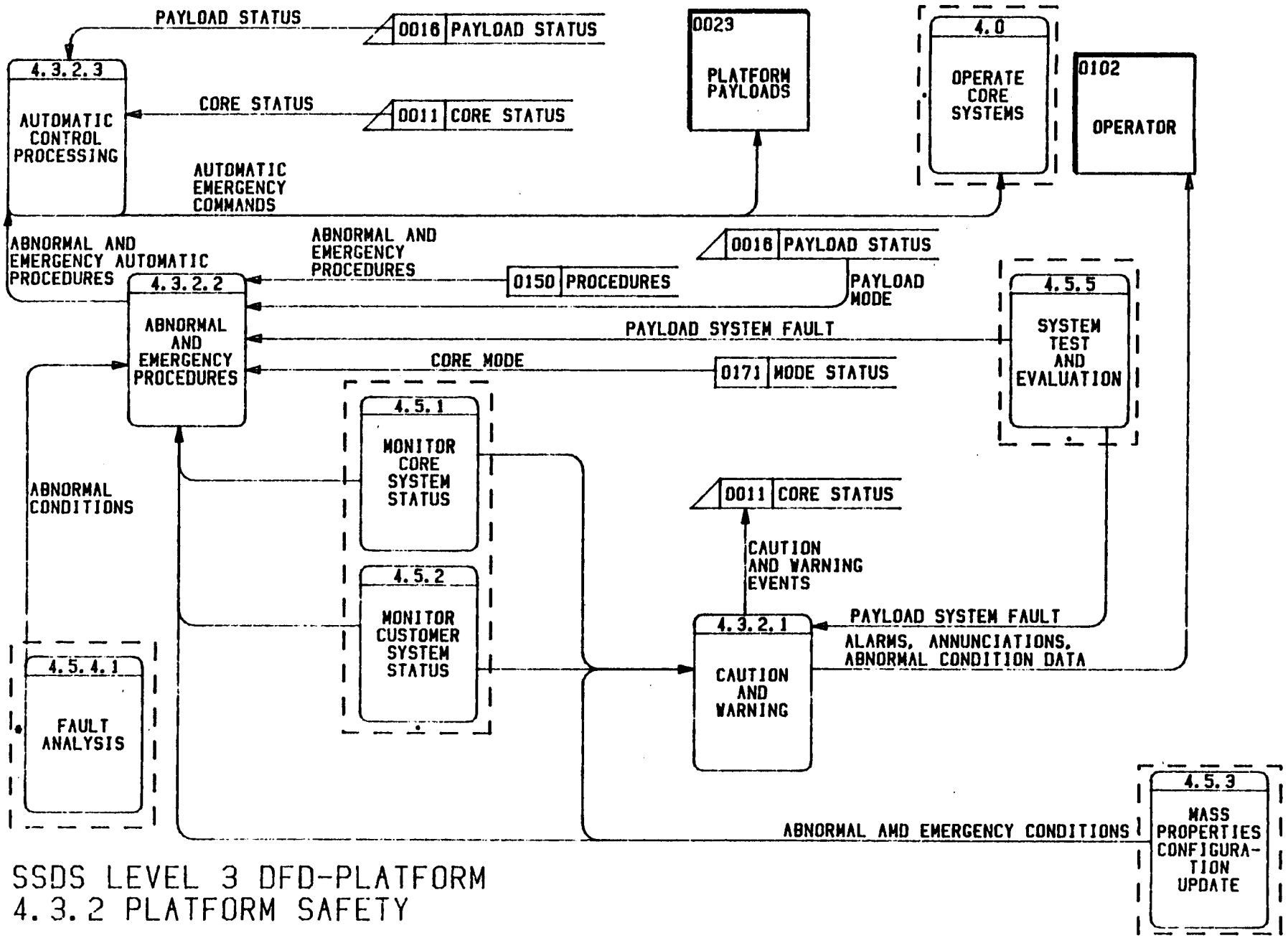
SSDS LEVEL 2 DFD-SPACE STATION
4.3 SUPPORT FLIGHT CREW ACTIVITIES



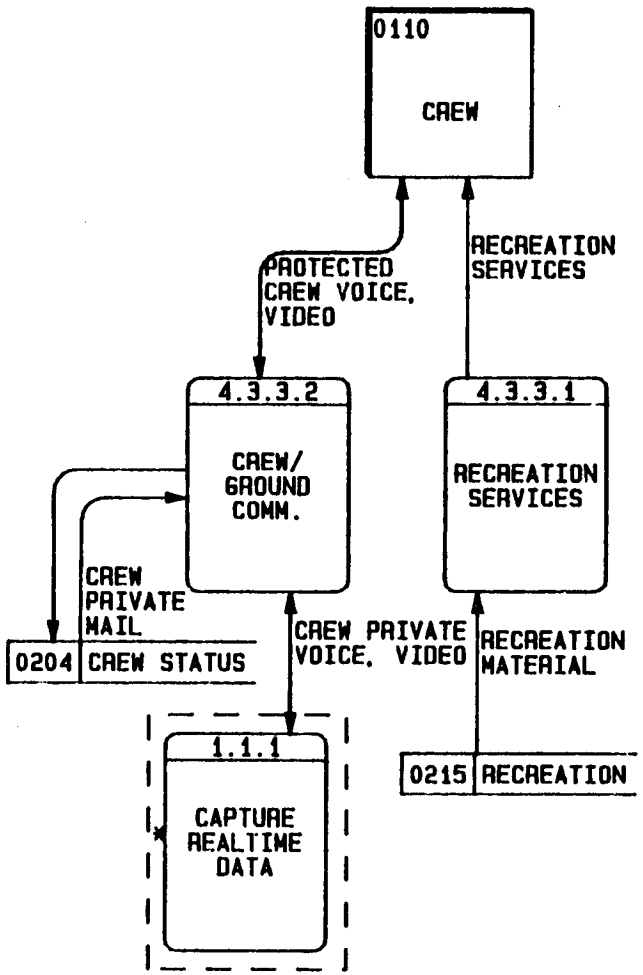
SSDS LEVEL 3 DFD-SPACE STATION
4.3.1 HEALTH MAINTENANCE



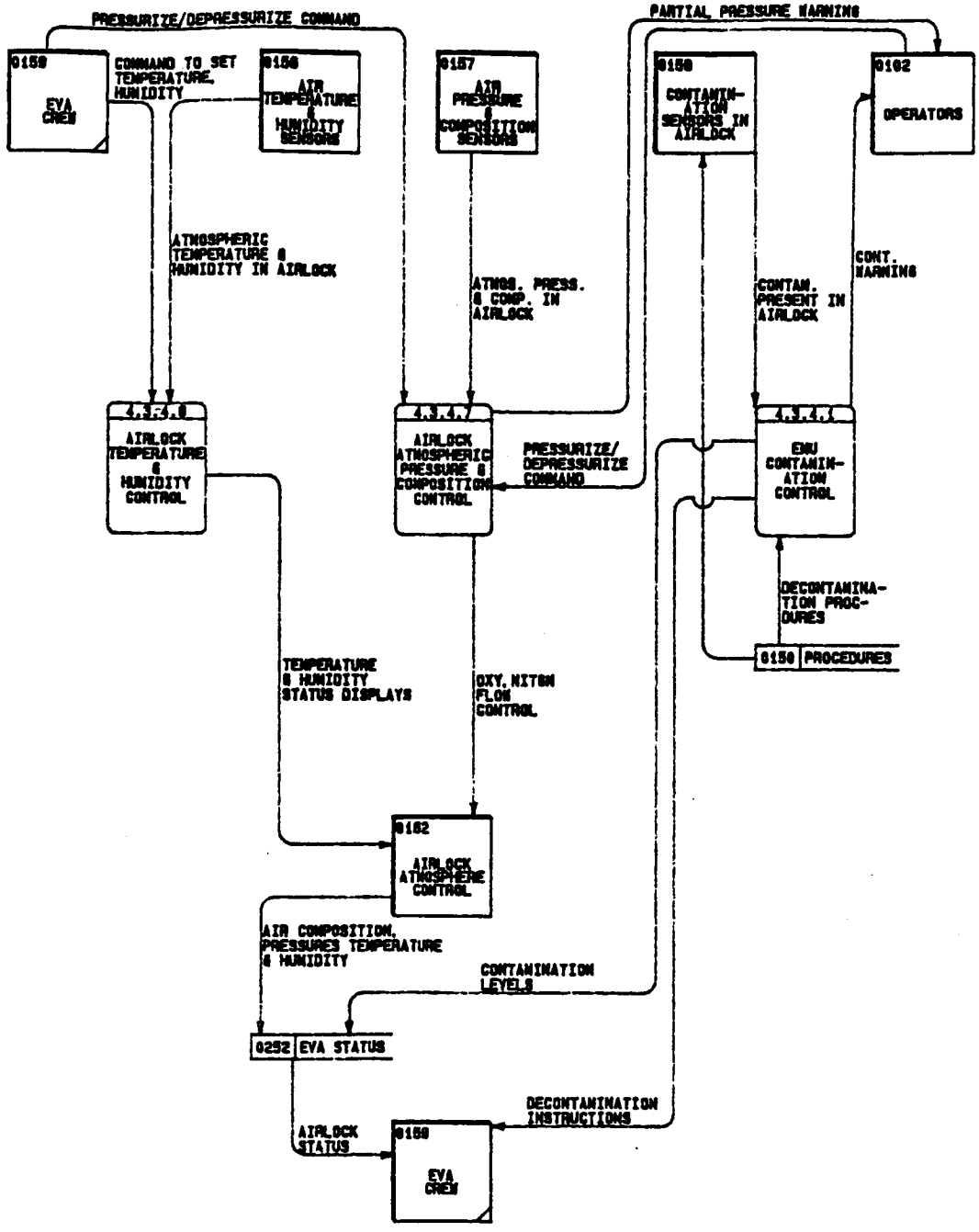
SSDS LEVEL 3 DFD-SPACE STATION
4.3.2 SPACE STATION SAFETY



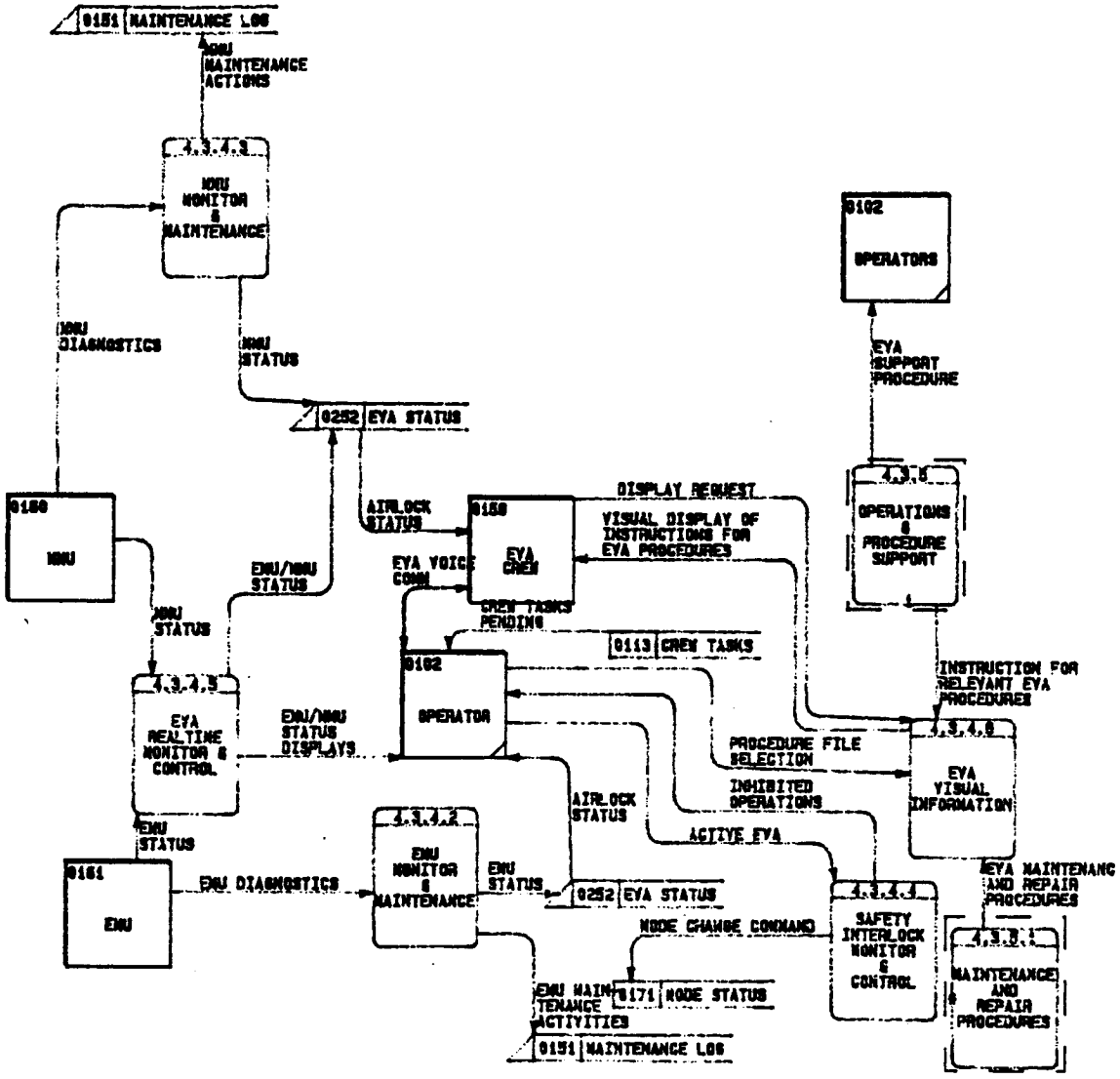
SSDS LEVEL 3 DFD-PLATFORM
4.3.2 PLATFORM SAFETY



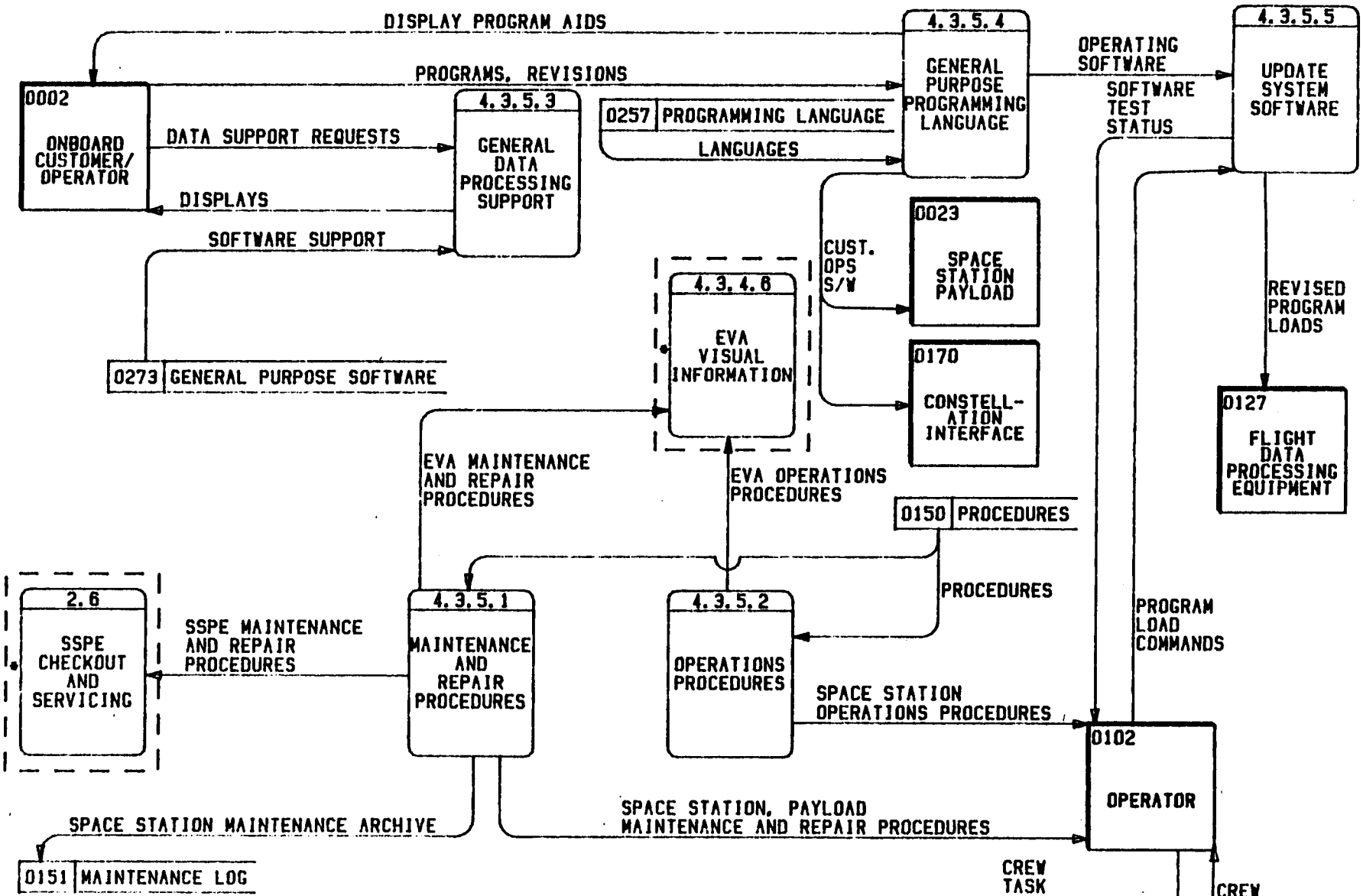
SSDS LEVEL 3 DFD -SPACE STATION
4.3.3 HABITABILITY



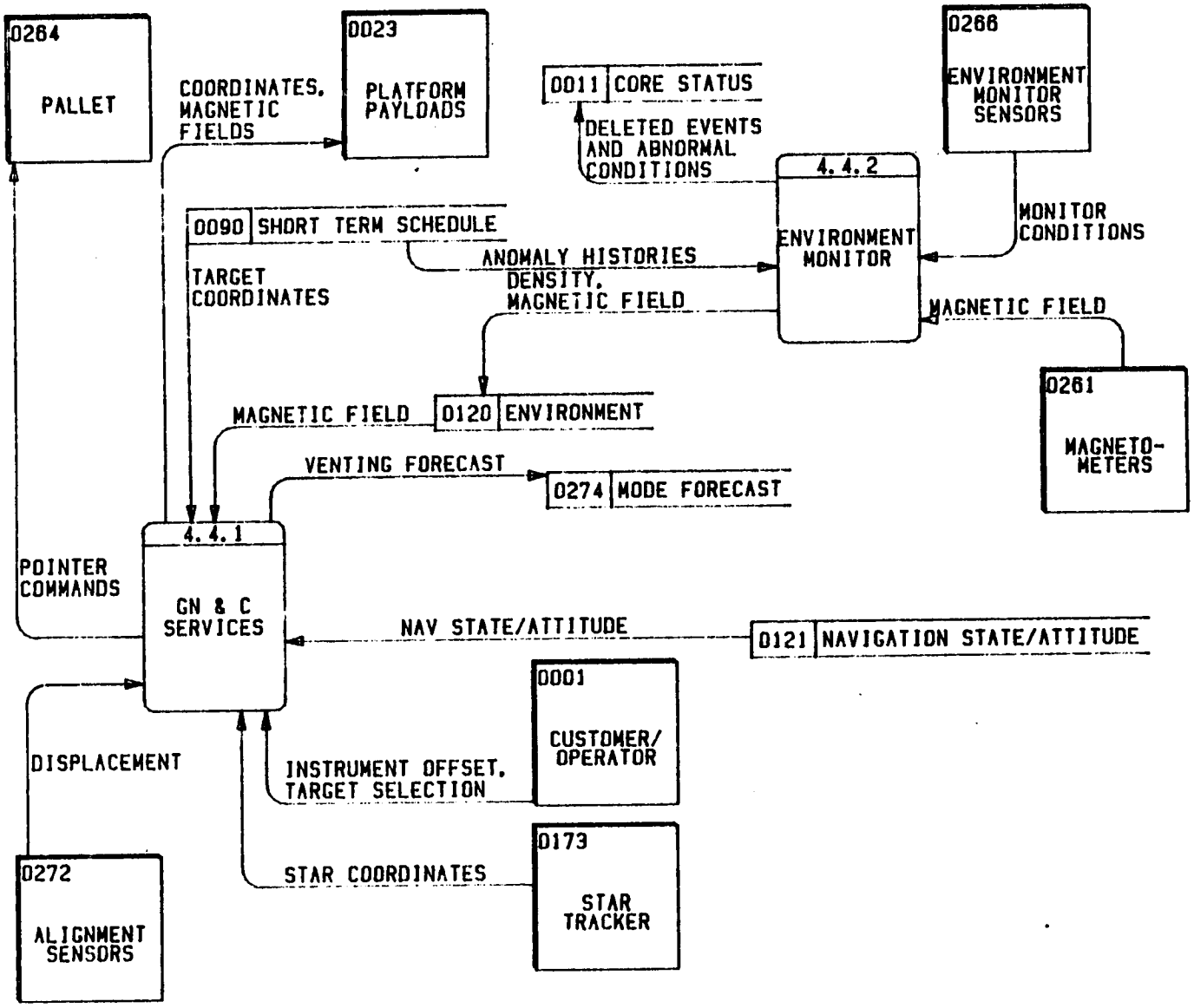
SSDS LEVEL 3 DFD-SPACE STATION
4.3.4 EVA SUPPORT



SSDS LEVEL 3 DFD-SPACE STATION
4.3.4 EVA SUPPORT

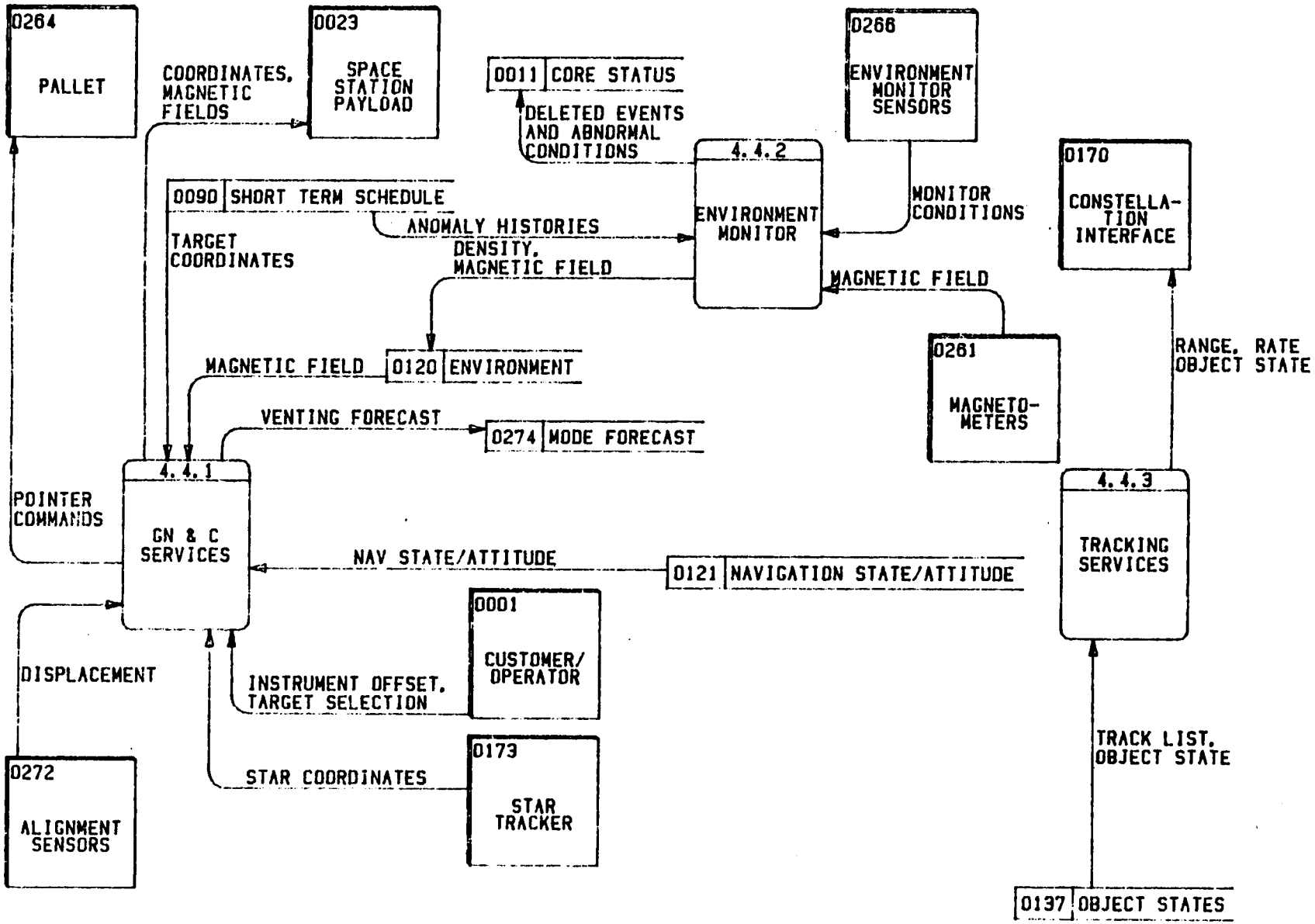


SSDS LEVEL 3 DFD
4.3.5 OPERATIONS AND PROCEDURE SUPPORT

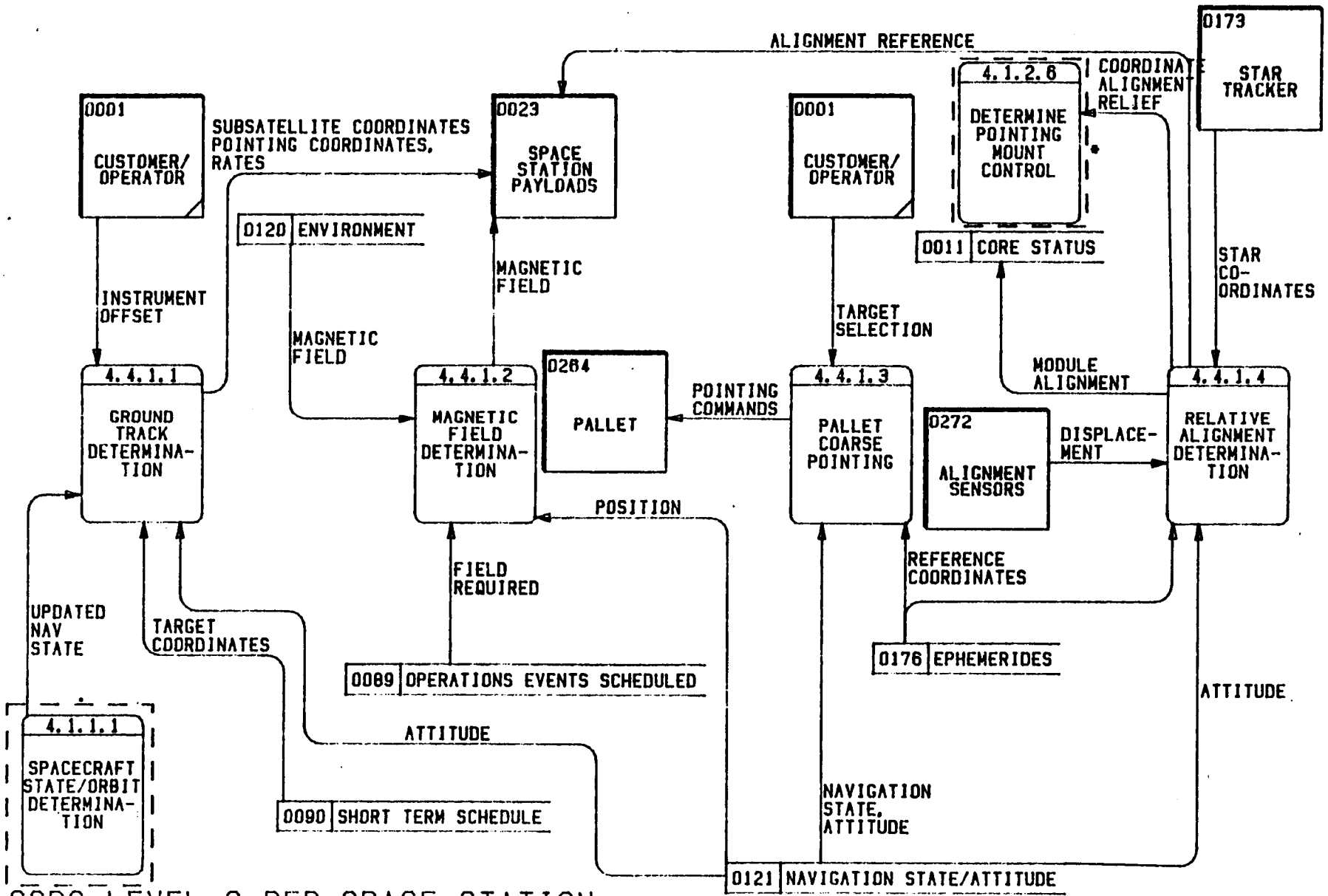


LEVEL 2 DFD -PLATFORM

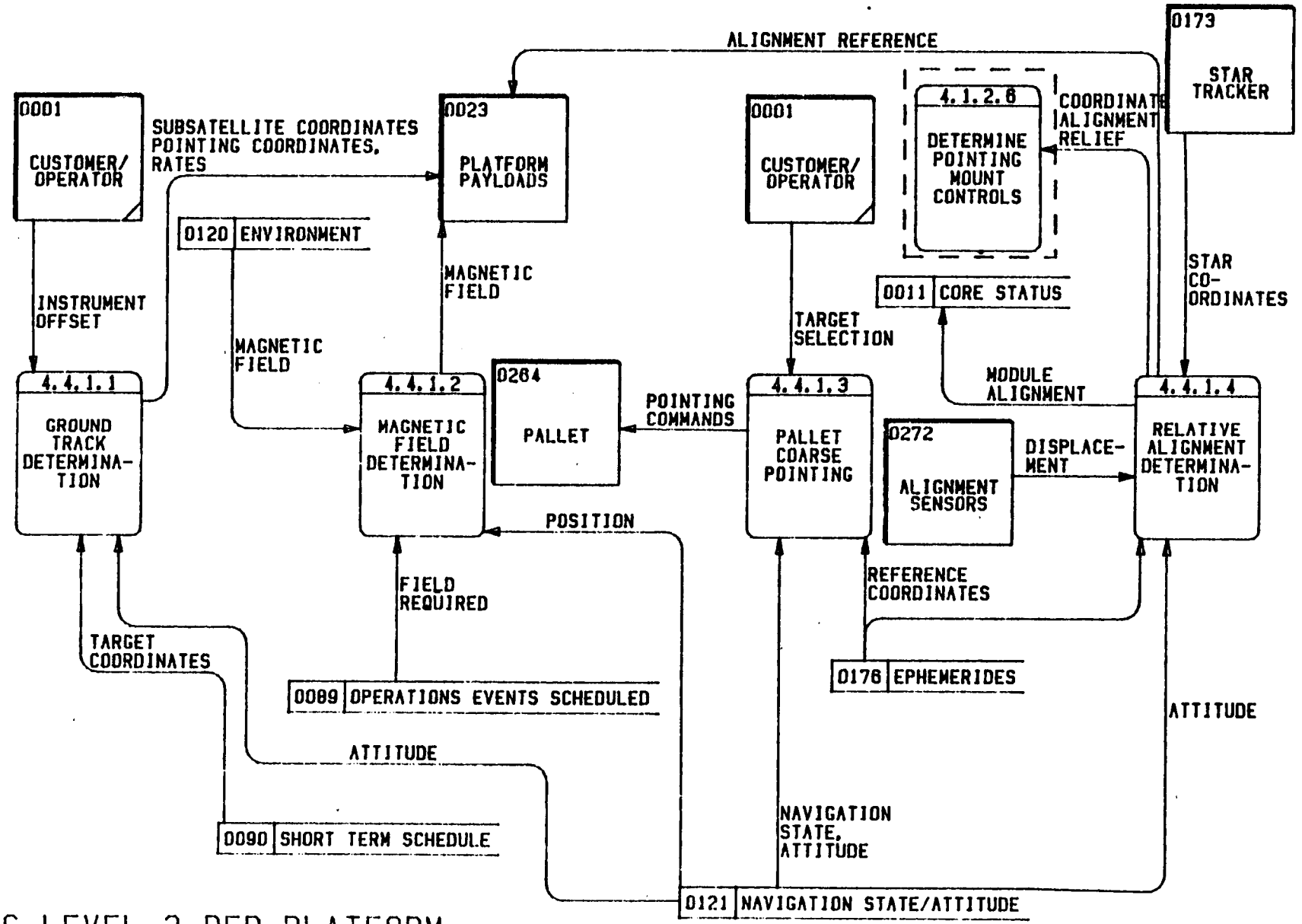
4.4 PROVIDE CUSTOMER AVIONICS SERVICES



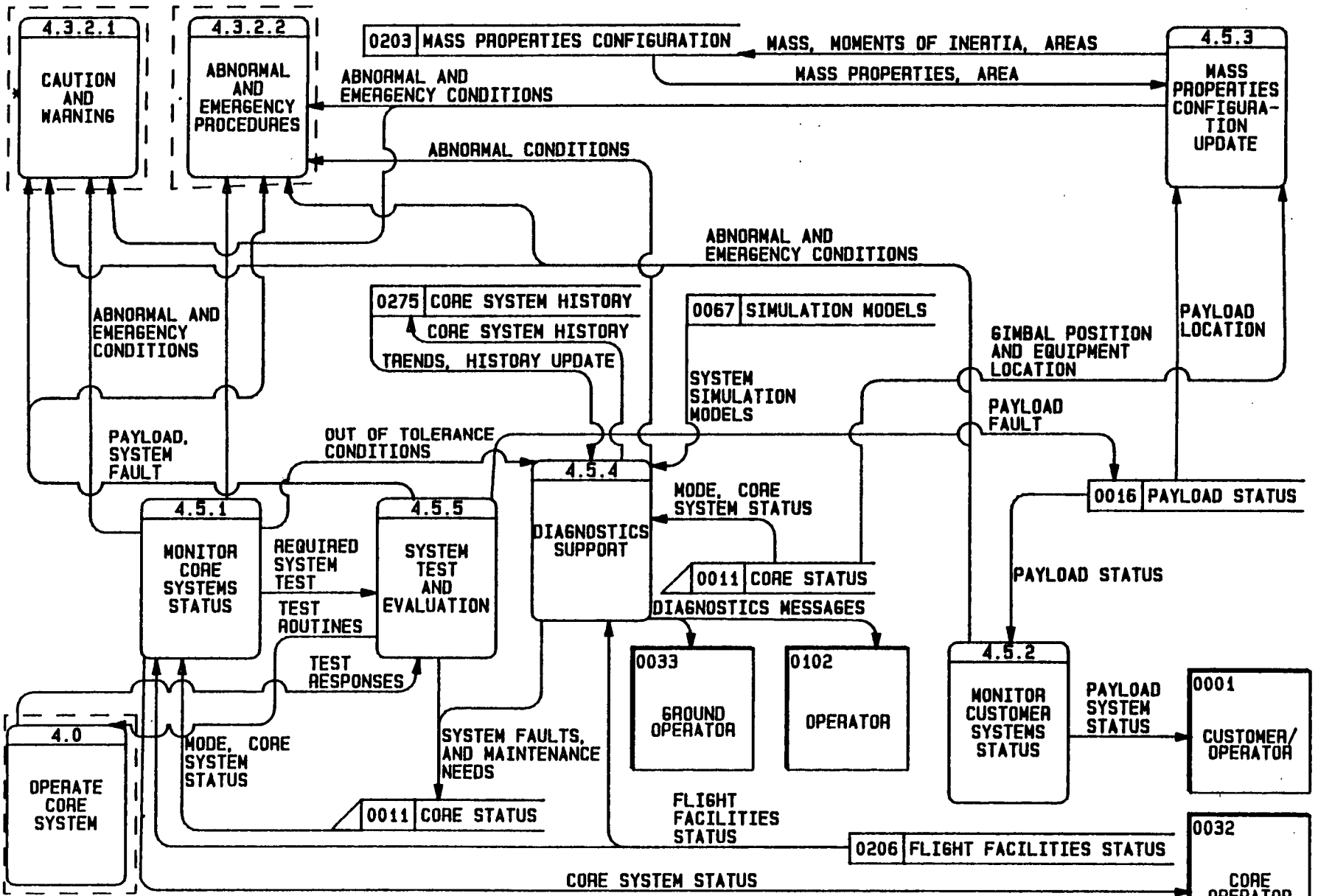
LEVEL 2 DFD -SPACE STATION
4.4 PROVIDE CUSTOMER AVIONICS SERVICES



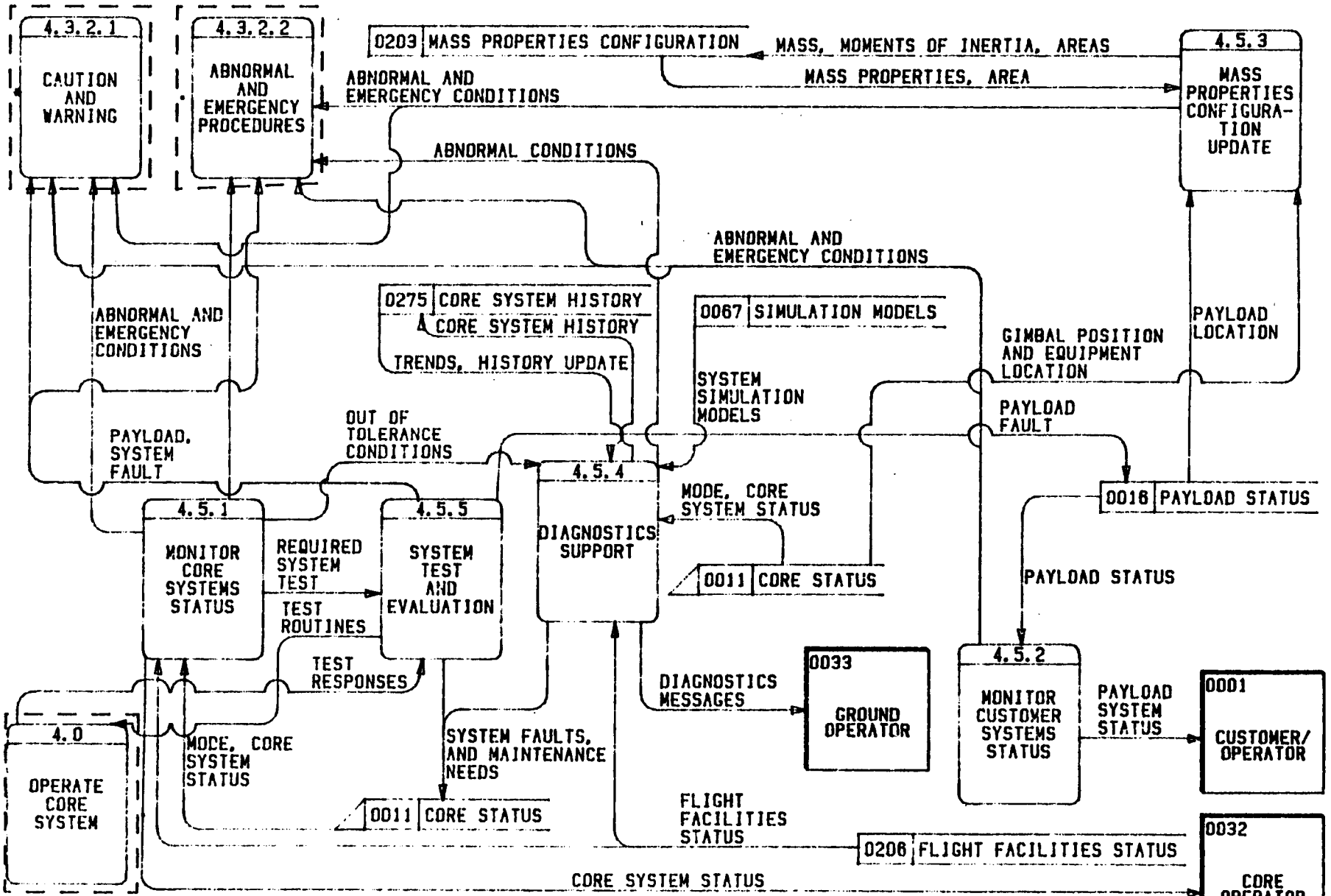
SSDS LEVEL 3 DFD-SPACE STATION
4.4.1 GN & C SERVICES



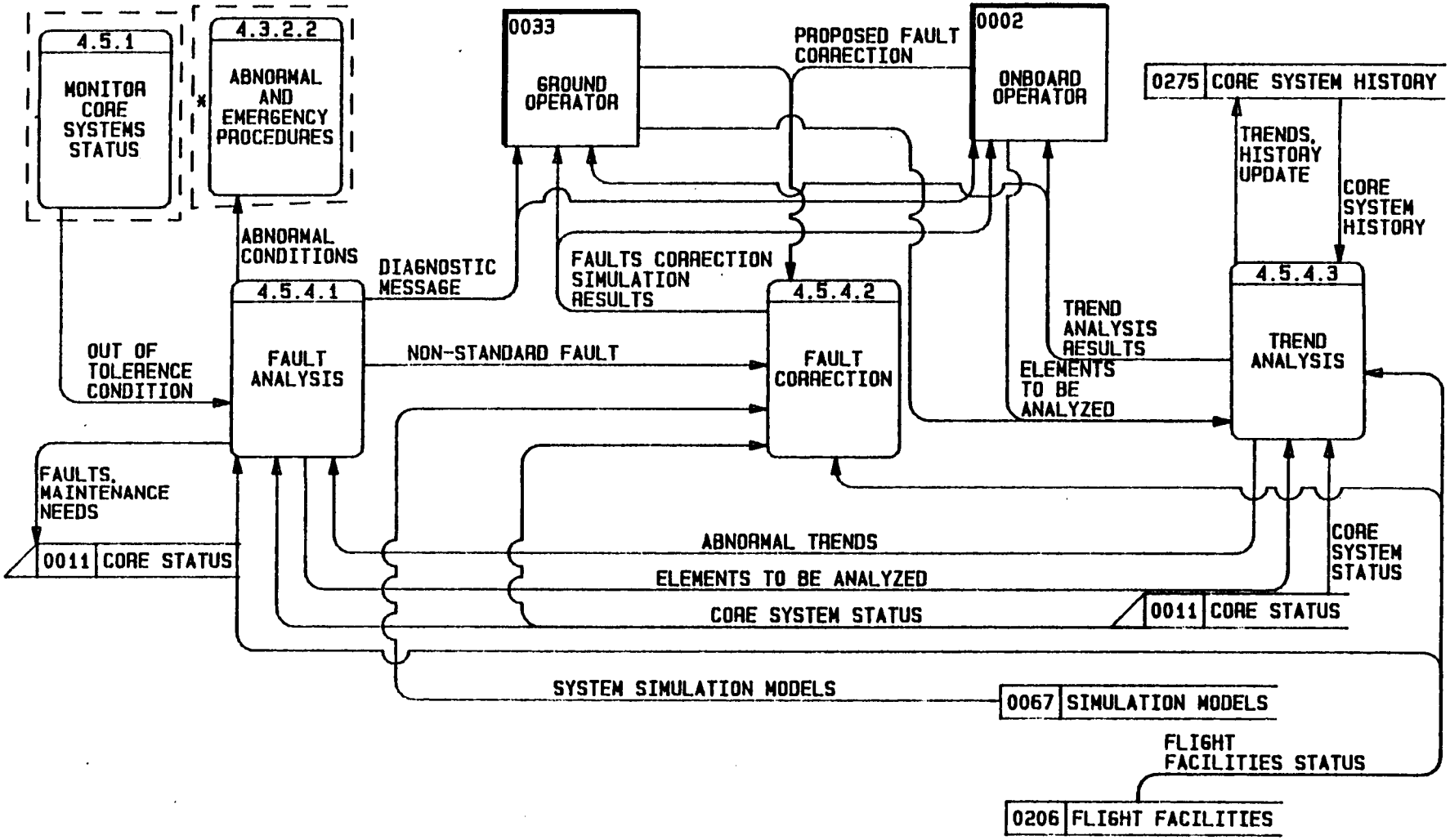
SSDS LEVEL 3 DFD-PLATFORM
4.4.1 GN & C SERVICES



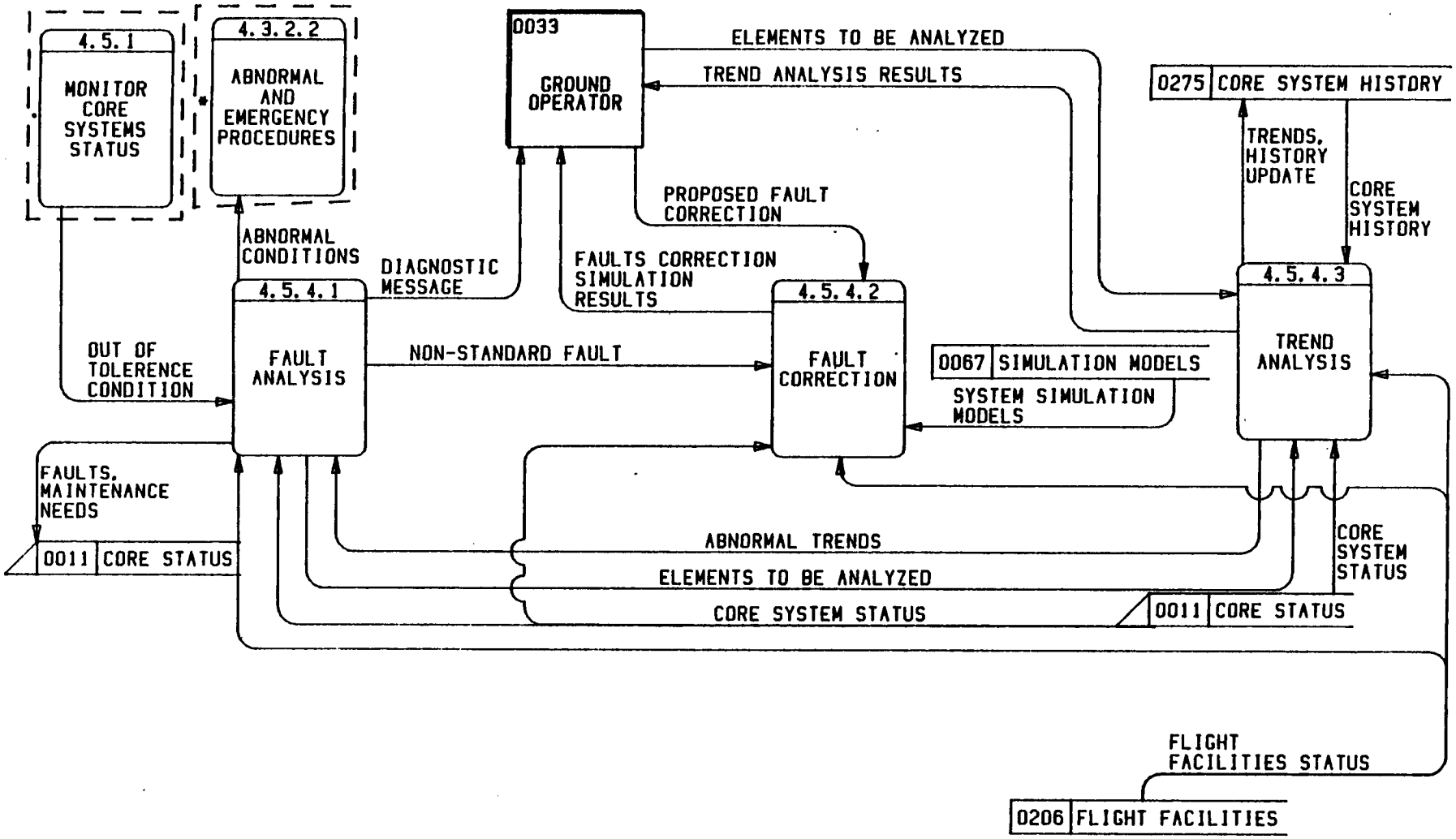
LEVEL 2 DFD-SPACE STATION
4.5 MONITOR AND STATUS SYSTEM



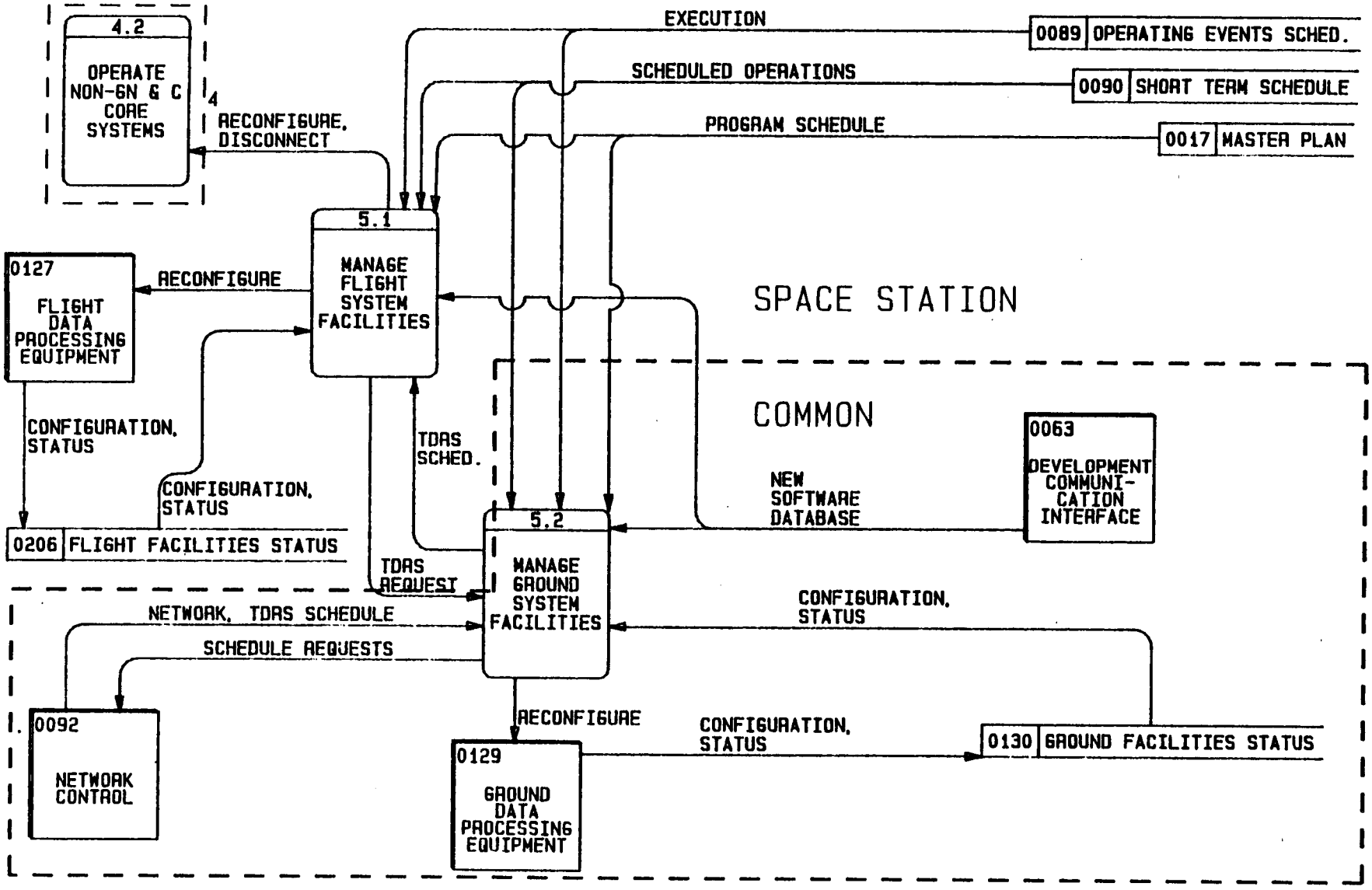
LEVEL 2 DFD-PLATFORM
4.5 MONITOR AND STATUS SYSTEM



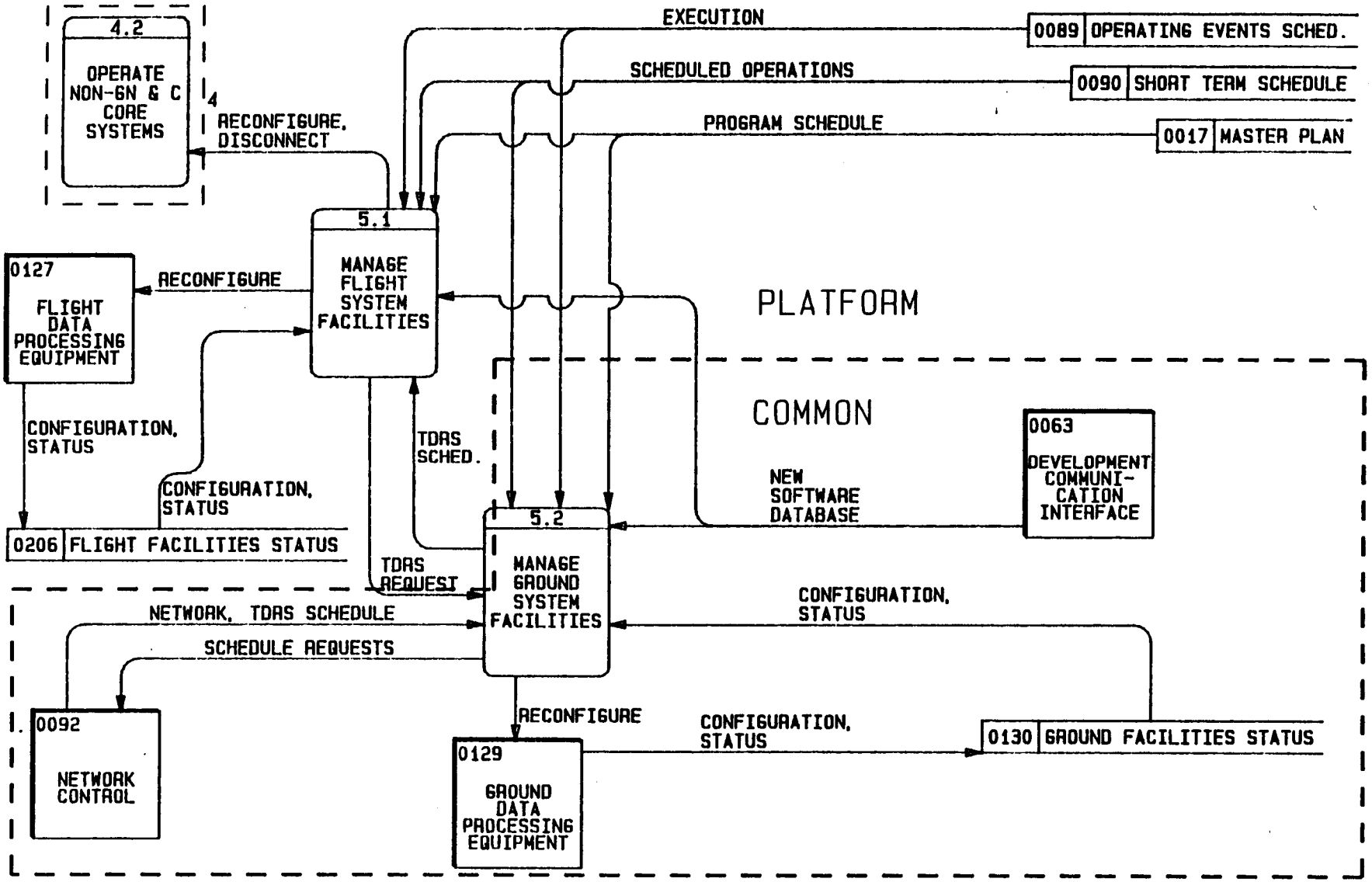
LEVEL 3 DFD-SPACE STATION
4.5.4 DIAGNOSTICS SUPPORT



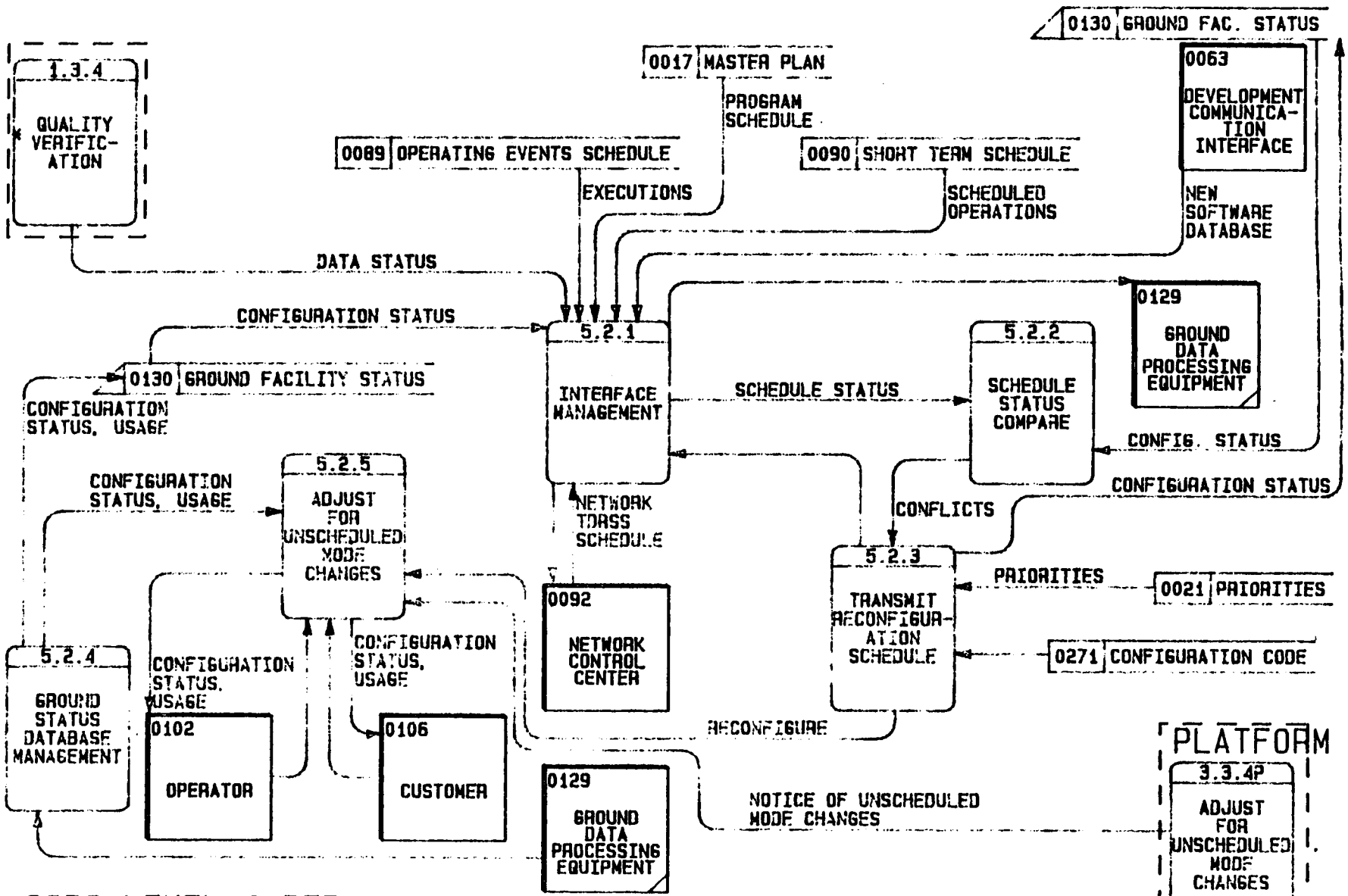
LEVEL 3 DFD-PLATFORM
4.5.4 DIAGNOSTICS SUPPORT



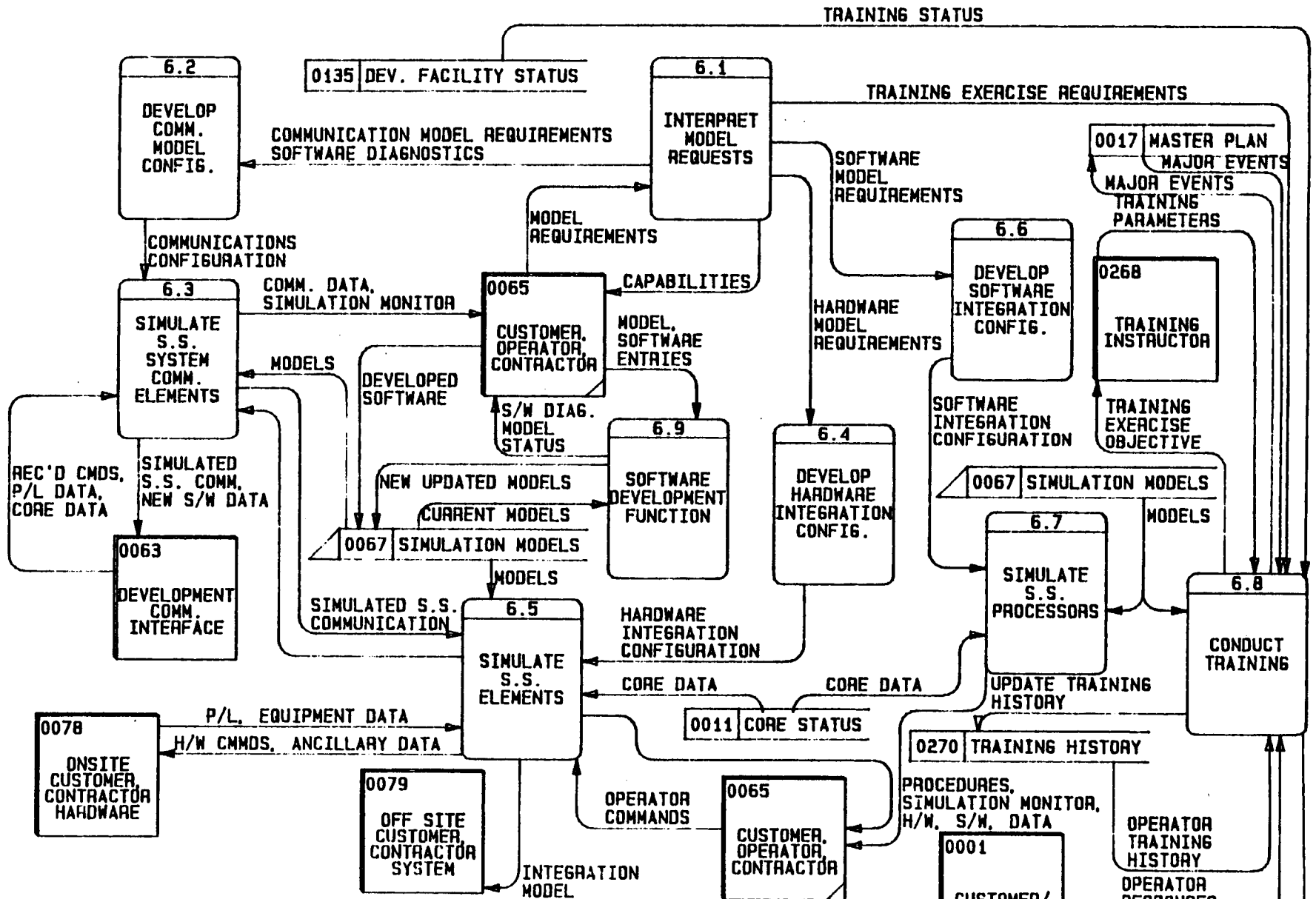
SSDS LEVEL 1 DFD-COMMON AND SPACE STATION
5.0 MANAGE FACILITIES AND RESOURCES



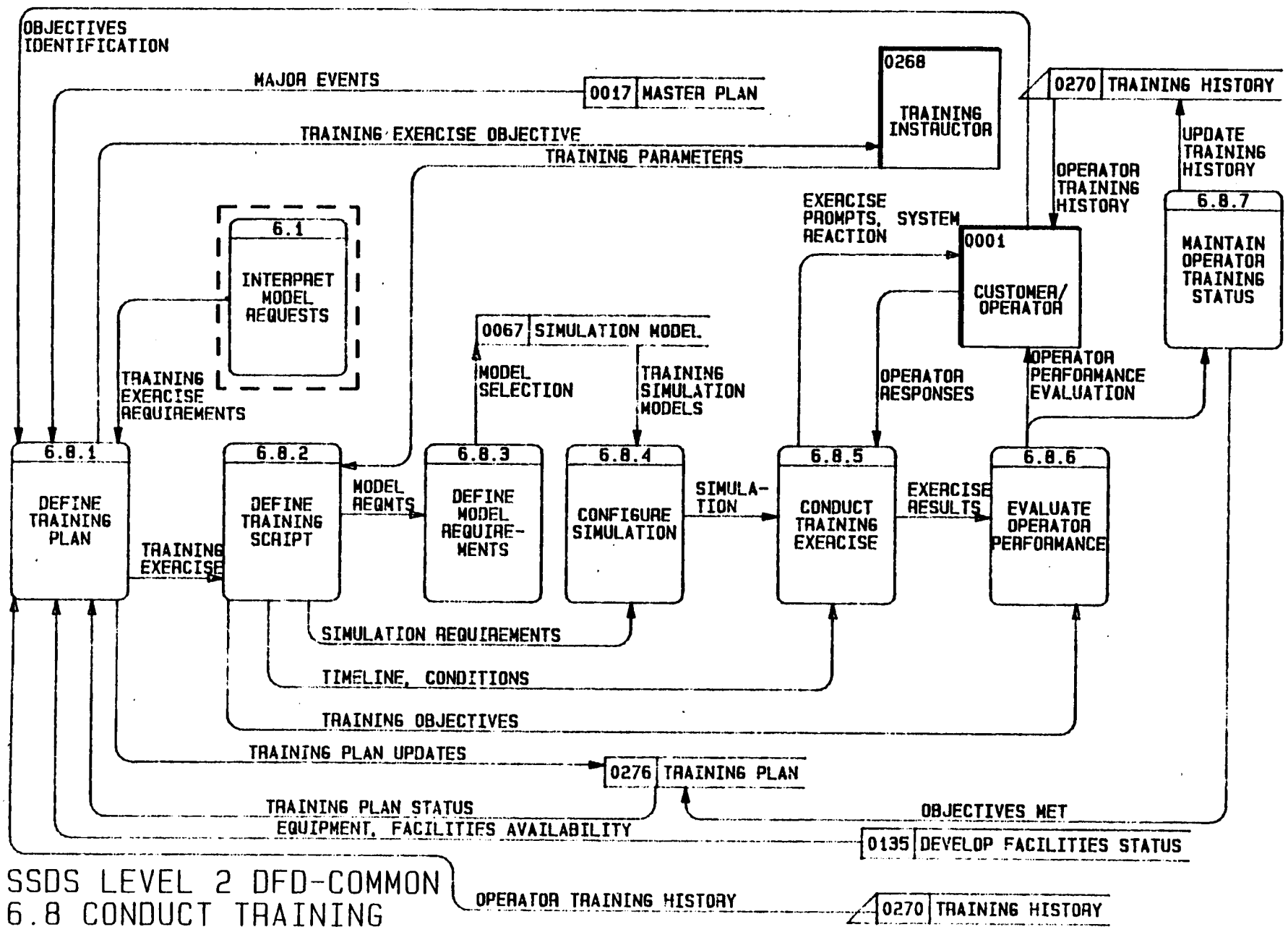
SSDS LEVEL 1 DFD-COMMON AND PLATFORM
5.0 MANAGE FACILITIES AND RESOURCES



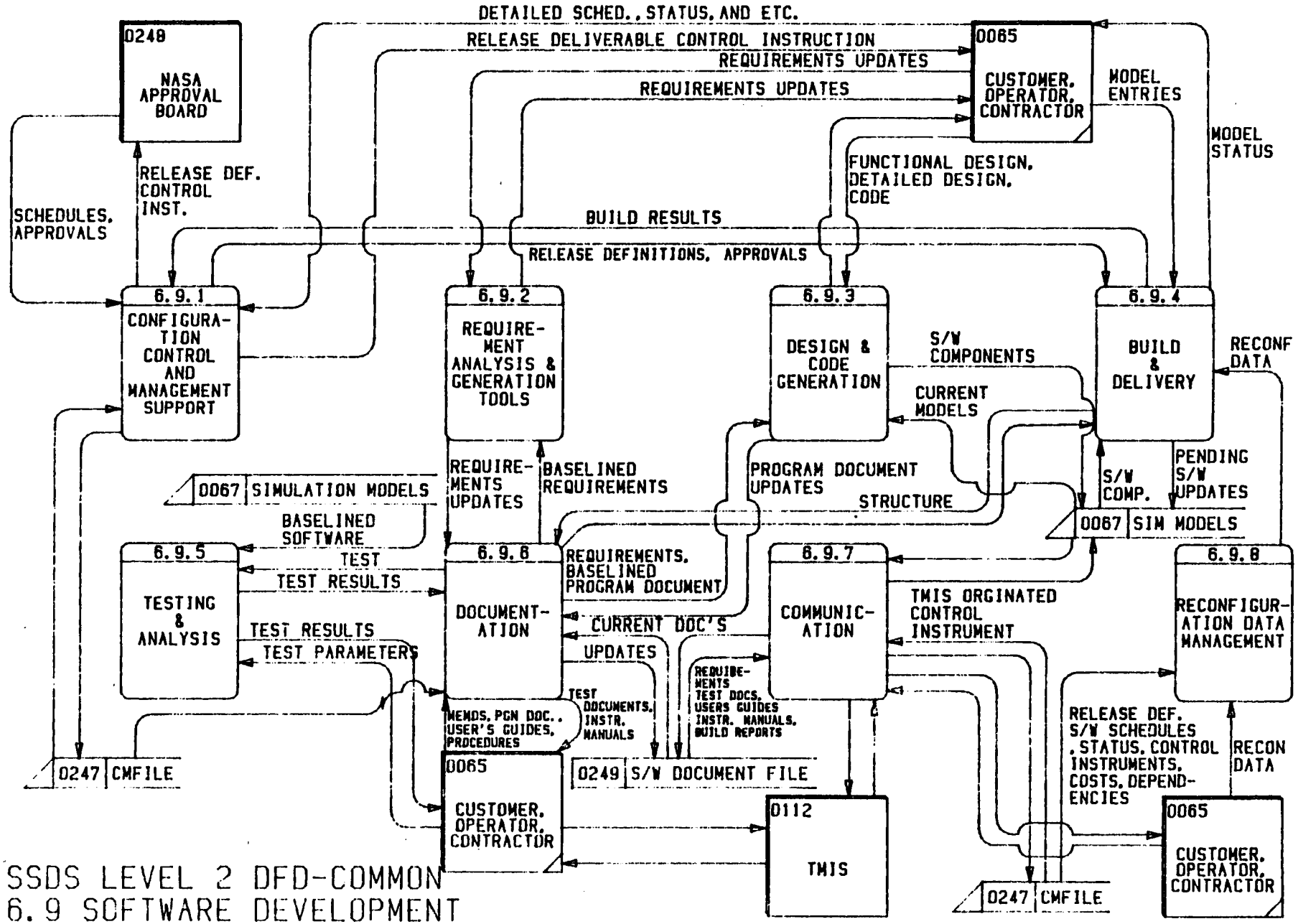
SSDS LEVEL 2 DFD
5.2 MANAGE GROUND SYSTEM FACILITIES



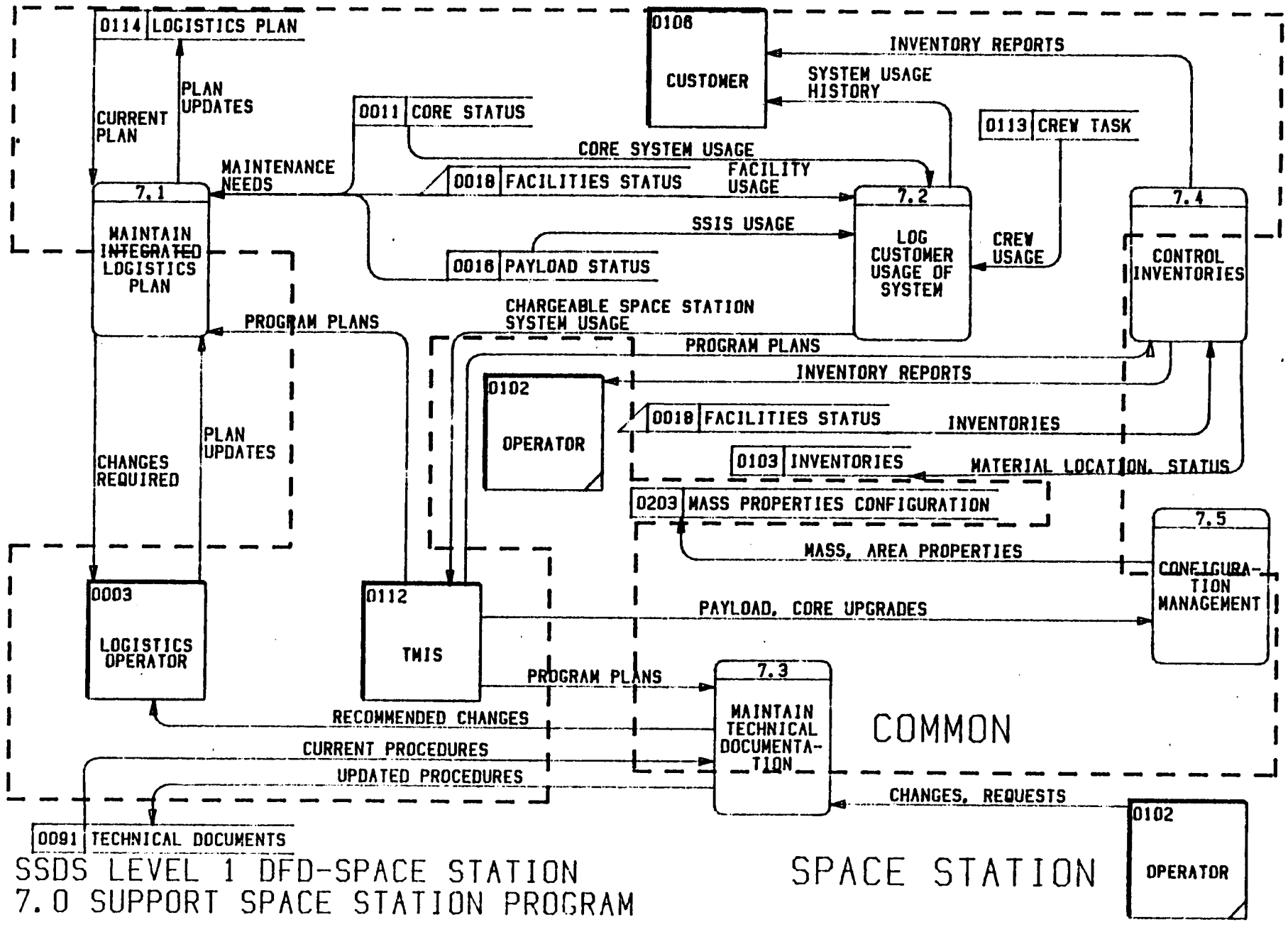
SSDS LEVEL 1 DFD-COMMON
6.0 DEVELOP, SIMULATE, INTEGRATE AND TRAIN



SSDS LEVEL 2 DFD-COMMON
6.8 CONDUCT TRAINING

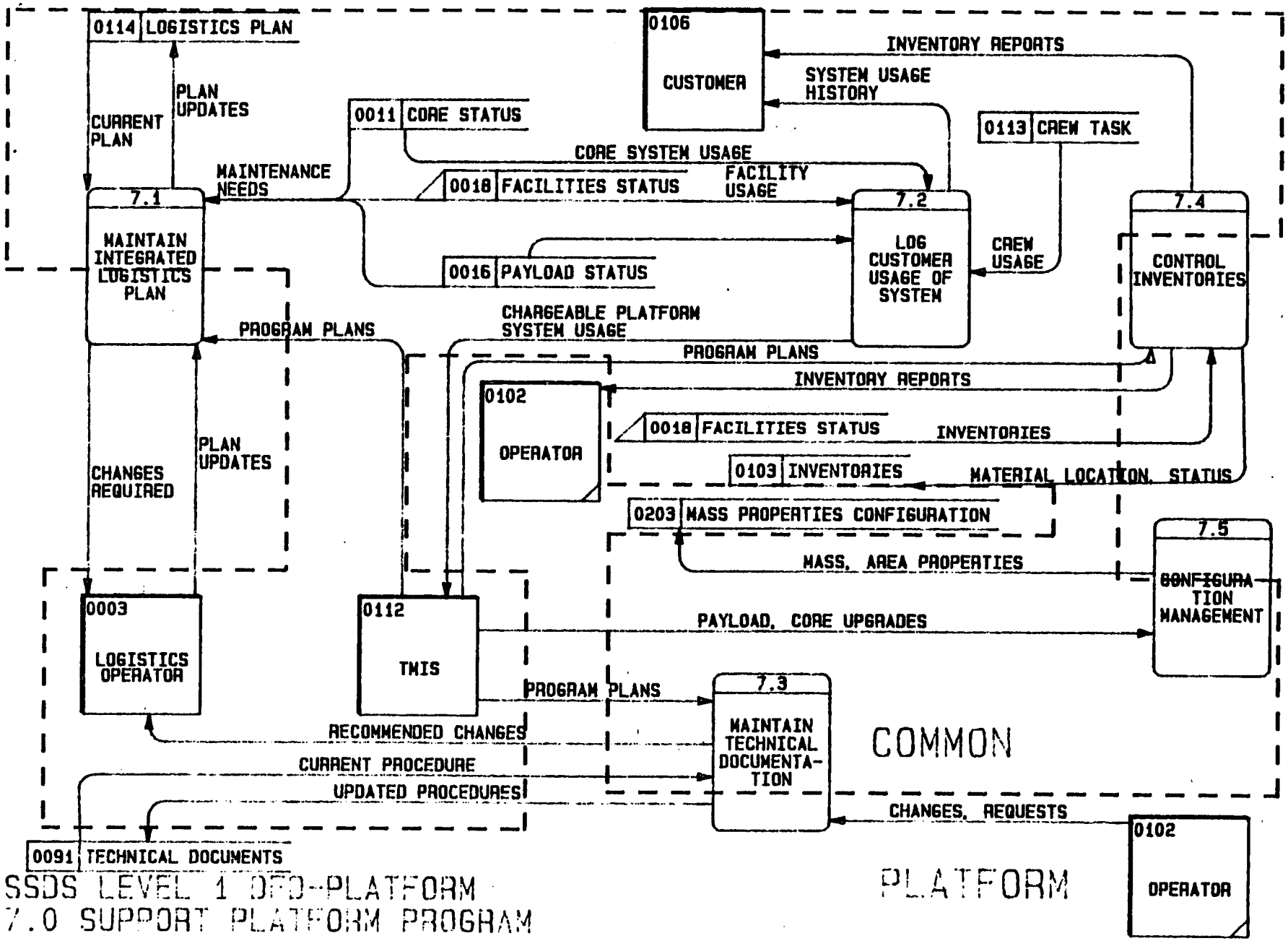


SSDS LEVEL 2 DFD-COMMON
6.9 SOFTWARE DEVELOPMENT

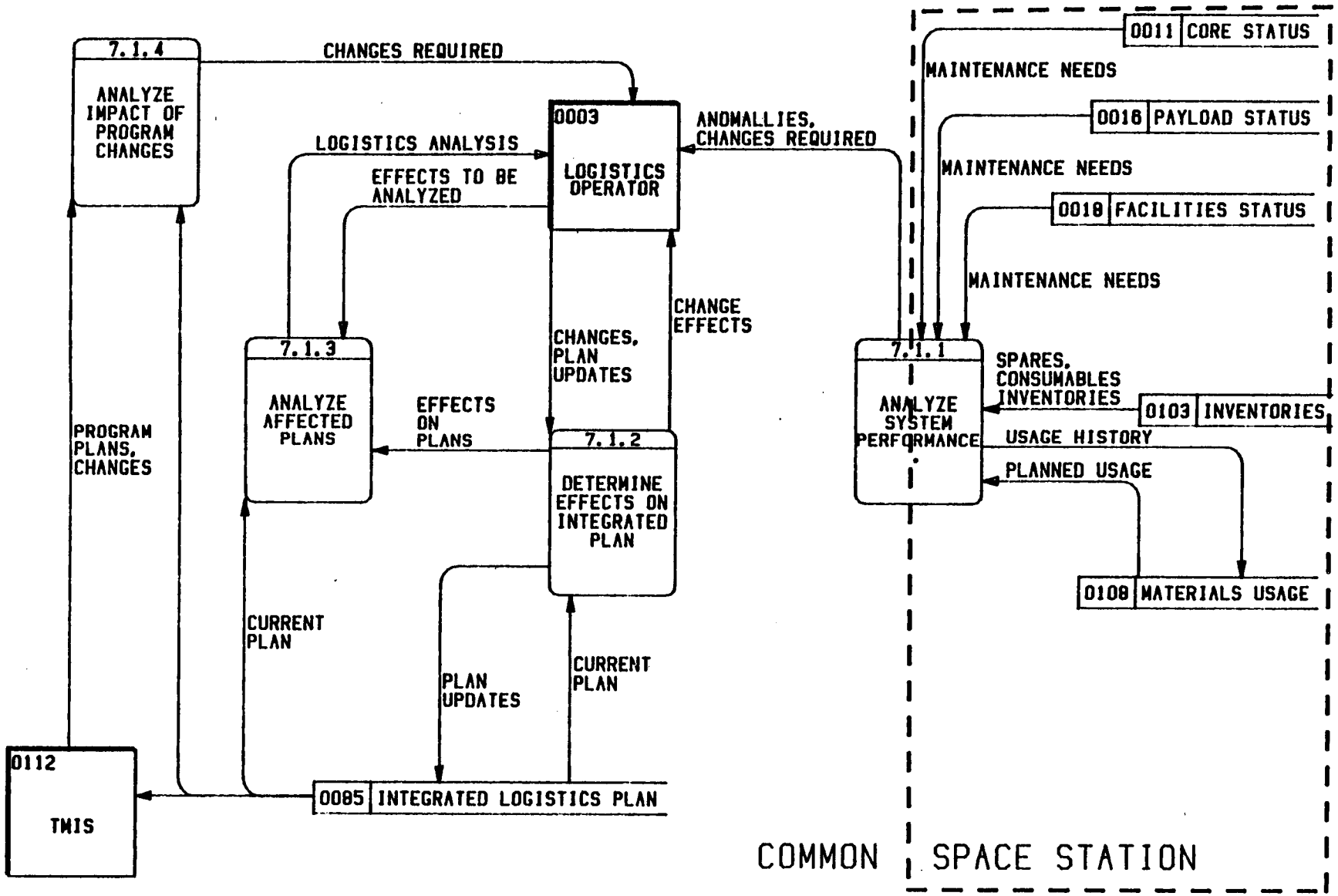


SSDS LEVEL 1 DFD-SPACE STATION
7.0 SUPPORT SPACE STATION PROGRAM

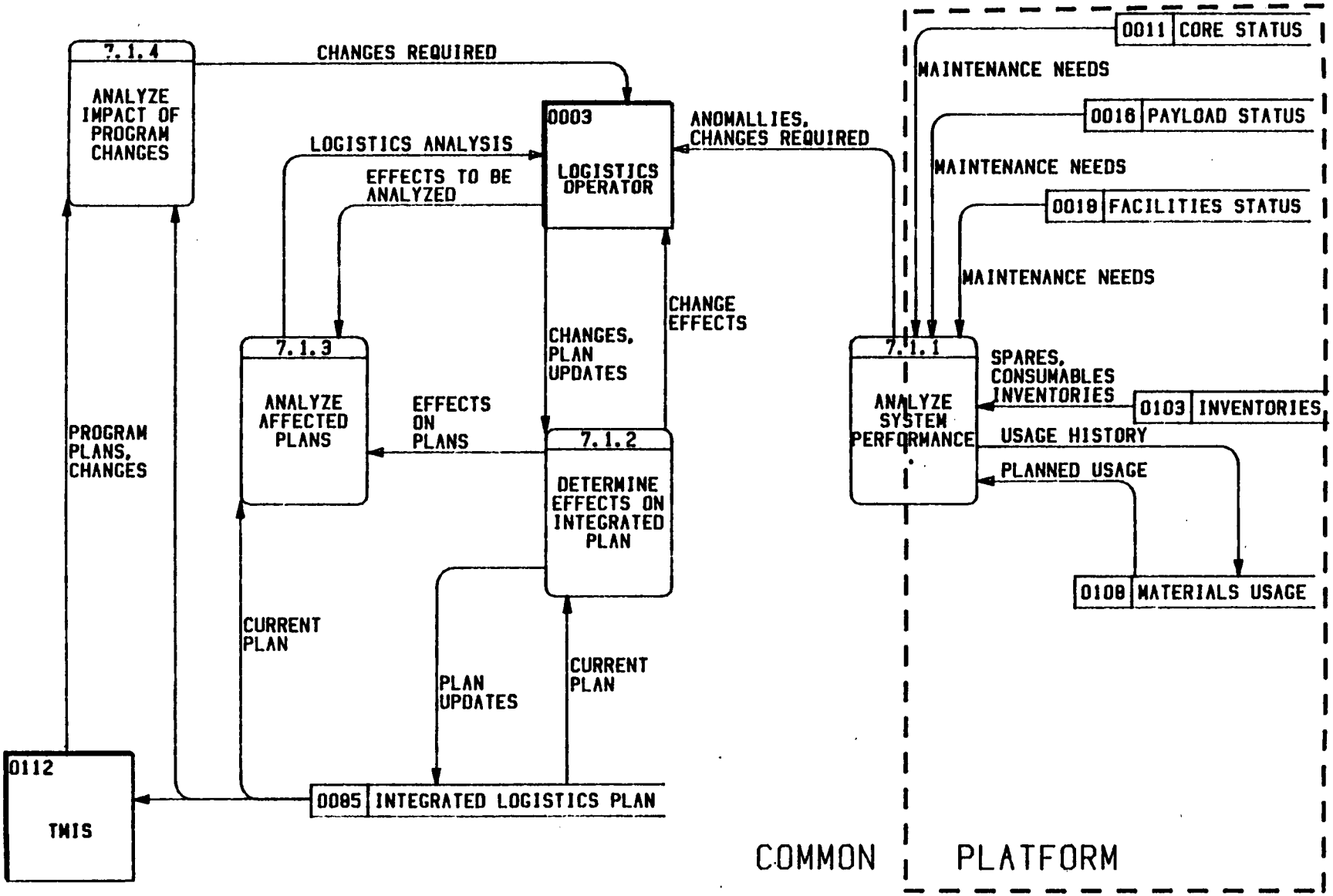
SPACE STATION



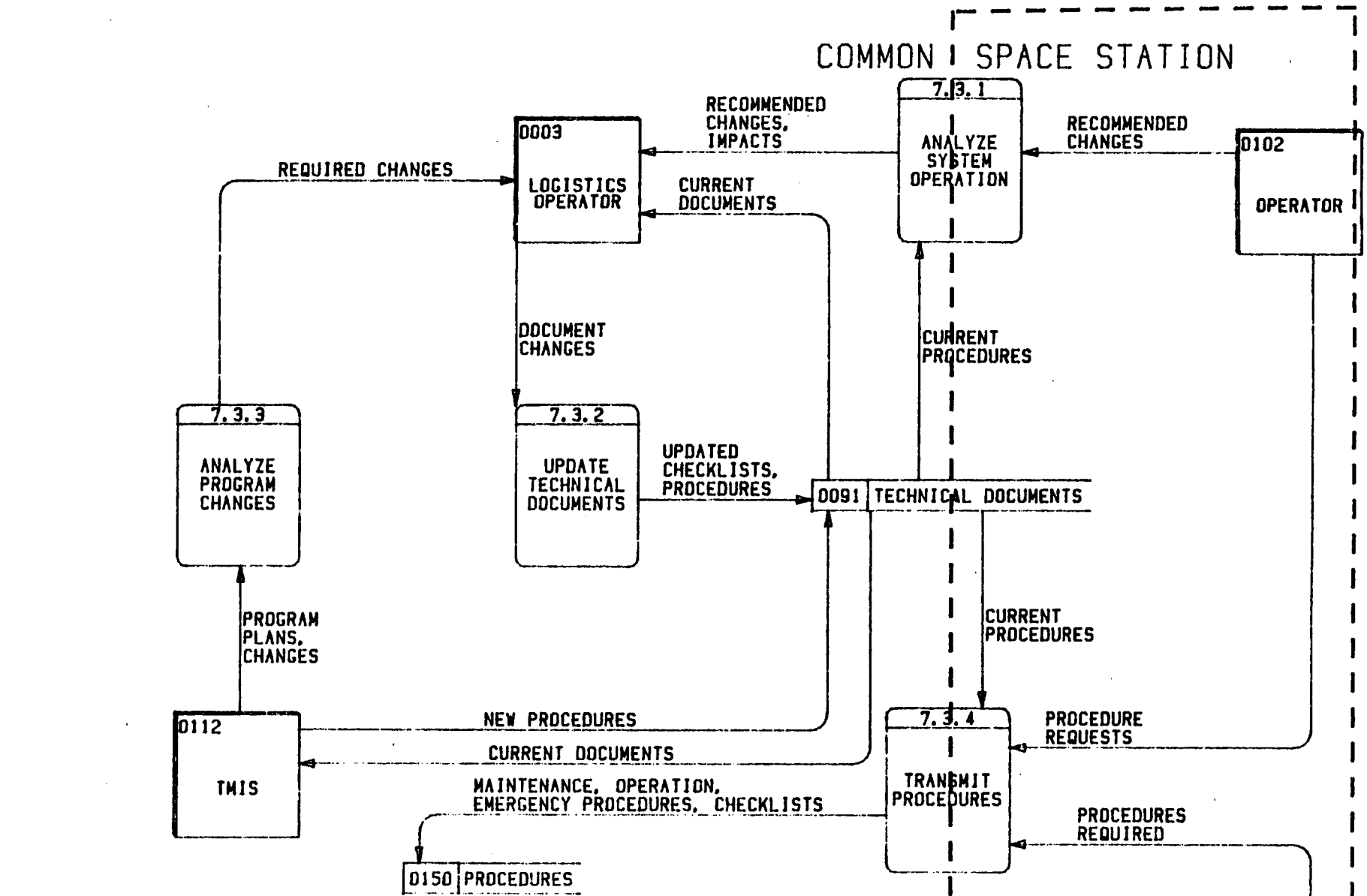
SSDS LEVEL 1 DFD--PLATFORM
7.0 SUPPORT PLATFORM PROGRAM



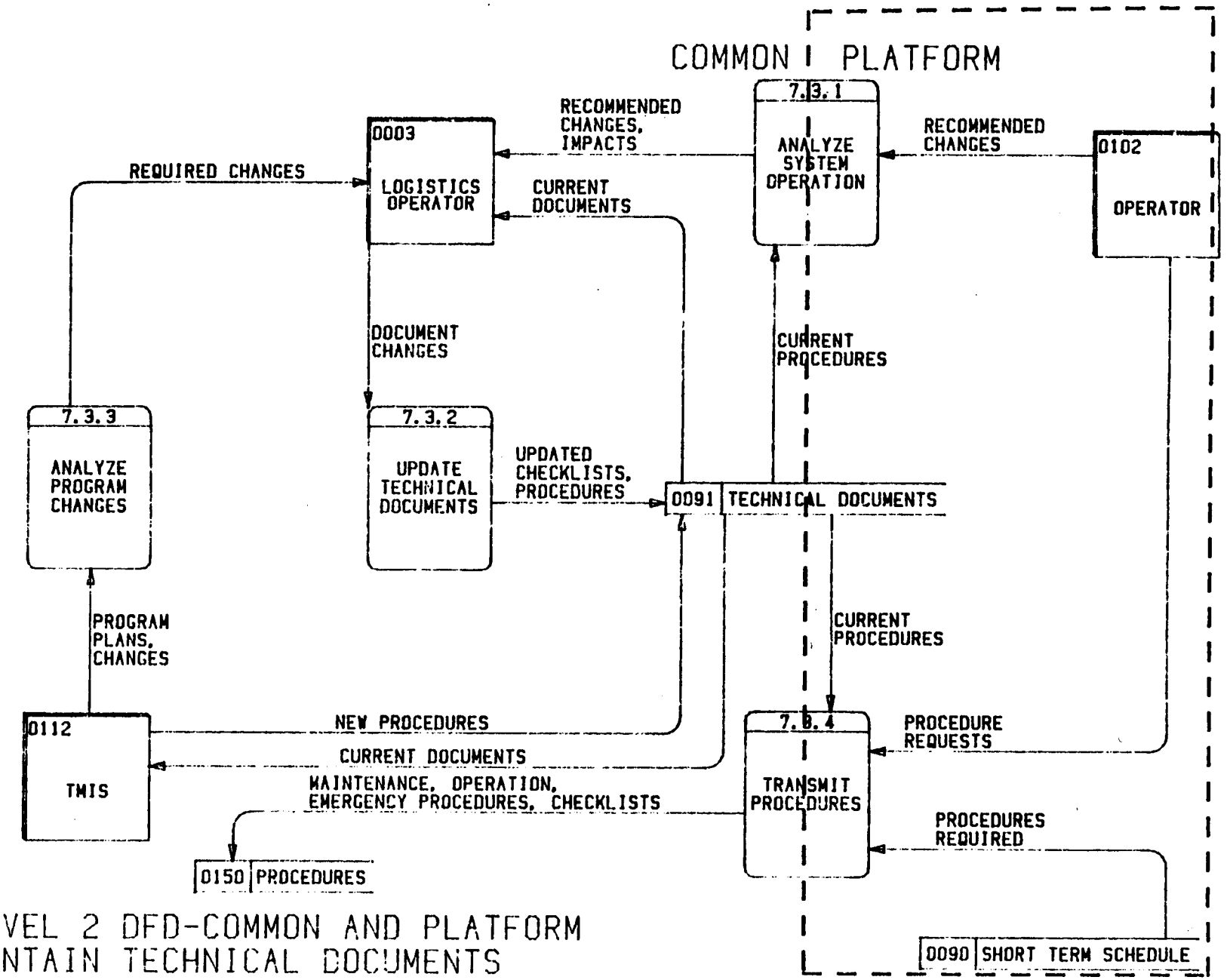
SSDS LEVEL 2 DFD-COMMON AND SPACE STATION
7.1 MAINTAIN INTEGRATED LOGISTICS PLAN



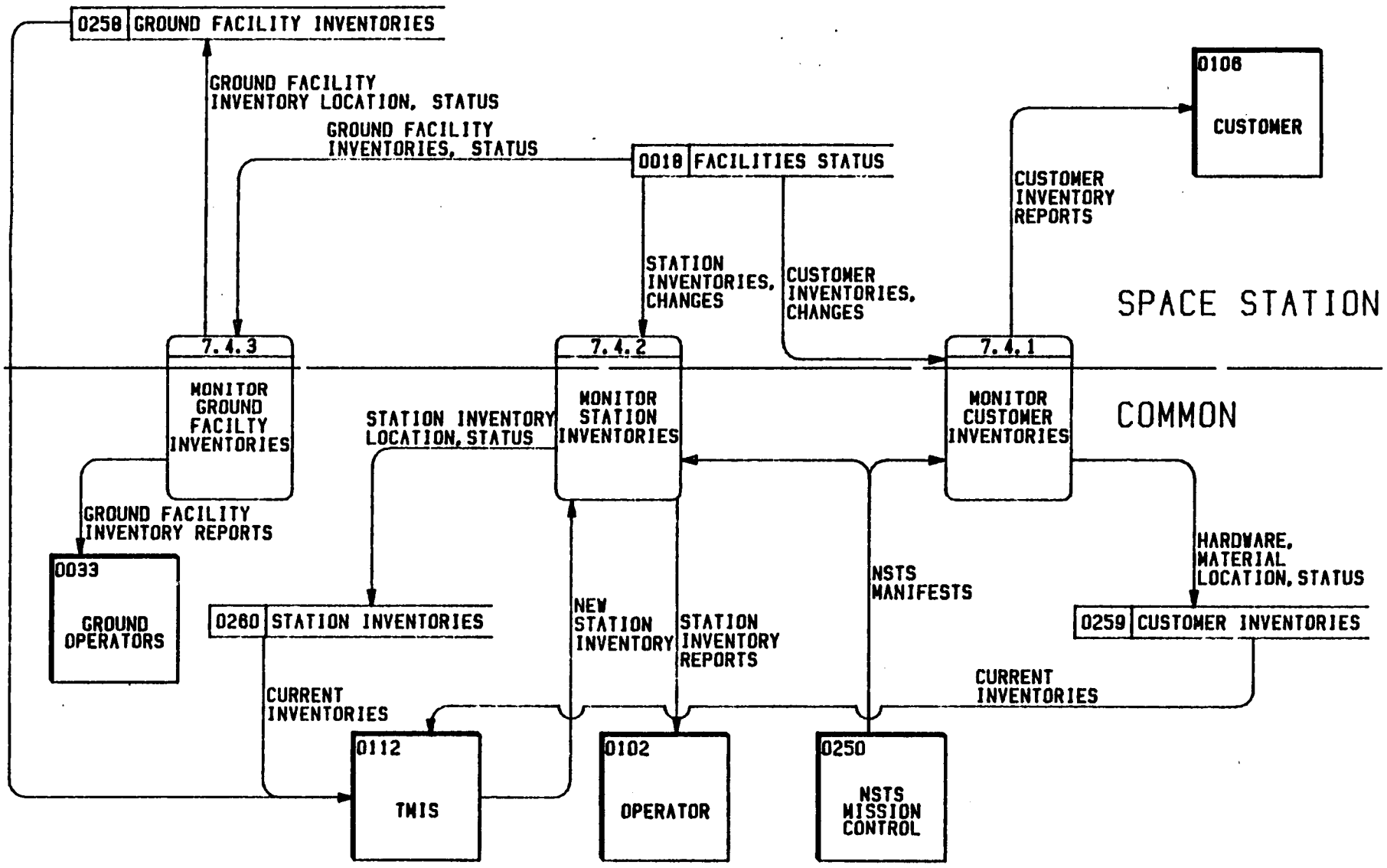
SSDS LEVEL 2 DFD-COMMON AND PLATFORM
7.1 MAINTAIN INTEGRATED LOGISTICS PLAN



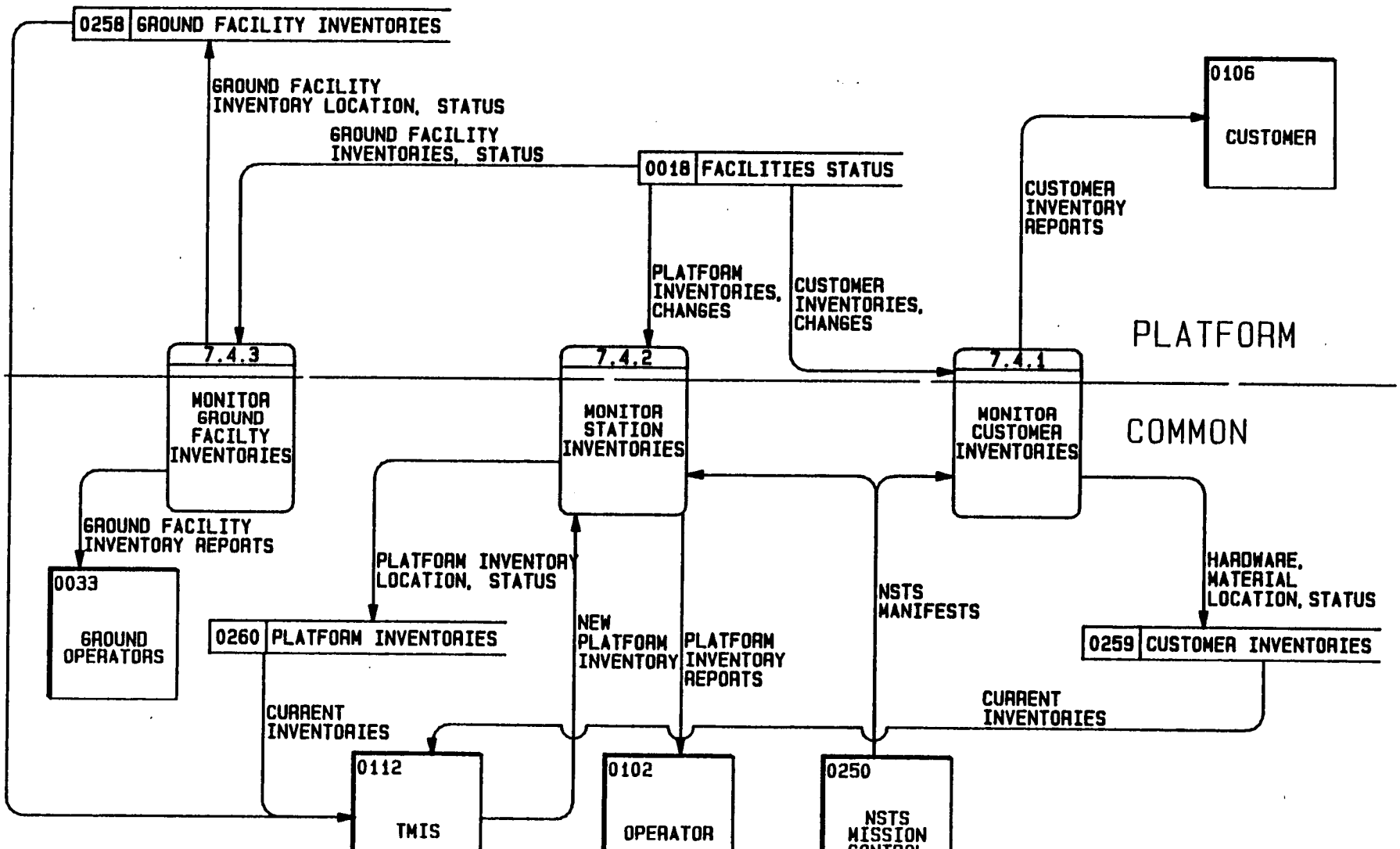
SSDS LEVEL 2 DFD-COMMON AND SPACE STATION
7.3 MAINTAIN TECHNICAL DOCUMENTS



SSDS LEVEL 2 DFD-COMMON AND PLATFORM
7.3 MAINTAIN TECHNICAL DOCUMENTS



SSDS LEVEL 2 DFD-COMMON AND SPACE STATION
7.4 MONITOR INVENTORIES



SSDS LEVEL 2 DFD-COMMON AND PLATFORM
7.4 MONITOR INVENTORIES

APPENDIX E

Data Dictionary

APPENDIX E

Data Dictionary

The data dictionary entries in this appendix support the data flow diagrams of Appendix D by providing definitions of the data store contents and the data flows.

E.1 Data Store contents are presented in a heirarchial arrangement of data structures and data elements. A data element is a simple data entry at its lowest useful subdivision. Data structures are assemblies of data elements and/or lower level data structures.

The data structure names in the data store contents have been selected to relate to the names of the data flows into and out of the data stores. This allows the estimates of data structure size to be derivable from the Input/Output data of the functional requirements data base, reference——.

Repeated entries in the data store definitions are designated by (1*—N) at the exit of the data structure, where N is the number of repetitions of the data structure. The lower level data structures and elements included under the repeated entry are also repeated for each entry of the repeated structure.

Occasionally, a data store will contain other data stores as data structures within the store. This is indicated by placing the data store number in parenthesis at the end of the entry. Cross referencing is used tro define these embedded data stores.

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DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
11	CORE STATUS	CONTAINS CURRENT DATA ON THE STATUS AND FUNCTIONING OF ONBOARD CORE SYSTEMS. *GN & C STATUS (SEE TBD) *NON-GN & C STATUS *C & T STATUS (SEE TBD) *TETHER SYSTEM STATUS *POWER SYSTEM STATUS *THERMAL SYSTEM STATUS *MECHANISM STATUS *MRMS SYSTEM STATUS *MRMS MODE *MRMS STATUS *DOCKING PORT STATUS *DOCKING PORT MODE *DOCKING PORT STATUS *OTHER MECHANISM STATUS *MAINTENANCE NEEDS *ECLSS STATUS (SEE TBD) *CAUTION AND WARNING EVENTS *EVA STATUS (SEE TBD) *SSIS USAGE (WHERE?) *RESUPPLY NEEDS (WHERE?) *SYSTEM MODE *RESOURCE AVAILABLE FORECASTS *ANCILLARY DATA *MODE STATUS (SEE 171) *SYSTEM STATUS
16	PAYLOAD STATUS	CONTAIN CURRENT MODE AND STATUS OF SPACE STATION AND OTHER SSPE PAYLOADS. *PAYLOAD STATUS (1*-30) *PAYLOAD *OPERATING MODE *STATUS
17	MASTER PLAN	CONTAINS A SCHEDULE OF MAJOR PROGRAM EVENTS WHICH WILL AFFECT SSP NORMAL OPERATION, IDENTIFIES BLOCKS OF TIME RESERVED FOR MAJOR EVENTS AND BLOCKS AVAILABLE FOR NORMAL OPERATIONS. *PROGRAM SCHEDULE *NSTS ORBITER VISITS (1*-16) *TIME OF VISIT *DURATION *MANIFEST (1*-5) *OTV LAUNCHES (1*-16) *PAYLOAD *LAUNCH DATE *RETURN DATE (1*-2) *CMV LAUNCHES (1*-50) *PAYLOAD, MISSION *LAUNCH DATE *TELEOPERATION *REQUIRED *DATE

DS_ NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*DURATION *MISSION DURATION *SATELLITE SERVICE(1*-8) *SATELLITE *DATE *DURATION *SENSITIVITIES (1*-5) *INTERFERENCES (1*-5) *OTHER, TBD (1*-50) *NORMAL OPERATING PERIODS (1*-150) *START *END
18	FACILITIES STATUS	CONTAINS CONFIGURATION AND EQUIPMENT AVAILABILITY /AVAILABILITY FOR ALL SSDS FACILITIES. *FLIGHT FACILITIES STATUS (TBD) *SSCC FACILITIES STATUS (0130) *DHC FACILITIES STATUS (0133) *DEVELOPMENT FACILITIES STATUS (0135)
21	PRIORITIES	CONTAINS MISSION PAYLOAD OPERATION PRIORITIES FOR OPERATION AND DATA RETURN. *OPERATING PRIORITIES (1*-30) *PAYLOAD *NORMAL PRIORITY *OPPORTUNITY PRIORITY *DATA RETURN PRIORITIES *PAYLOAD *REALTIME PRIORITY *NORMAL *OPPORTUNITY *QUICK LOOK PRIORITY *NORMAL *OPPORTUNITY *BULK PRIORITY
25	DELAYED DATA	CONTAINS BULK DATA AWAITING TRANSMISSION TO THE GROUND AND ACCOUNTING OF DATA WITH FILE. *BULK DATA *BULK PAYLOAD DATA *BULK CORE DATA *BULK DATA AVAILABLE
31	COMMAND LOG	CONTAINS RECORDS OF ALL COMMANDS ENTERED, CURRENT STATUS, AND FINAL DISPOSITION. PURGED WITHIN 24 HOURS OF FINAL DISPOSITION. *COMMAND *(1-N) *ENTERED *CURRENT STATUS *CLASSIFICATION *FINAL DISPOSITION
34	AUTHENTICATION	CONTAINS THE DATA NECESSARY FOR THE SSDS TO VERIFY THAT PERSONS INTERESTS COMMANDS ARE

DS_ NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		AUTHORIZED TO SEND COMMANDS TO THE INDICATED ADDRESSES. CONTAINS ADDITIONAL CUSTOMERS ENTERED PASSWORDS TO ASSIST CUSTOMERS IN CONTROLLING ACCESS TO THEIR STORED DATA. DATA STRUCTURES ARE: *AUTHORIZED CUSTOMER ADDRESSES (1,30) *CUSTOMER IDENTIFICATION *CUSTOMER PASSWORD *AUTHORIZED CUSTOMER ADDRESSES (1,10) *AUTHORIZED OPERATOR, ADDRESSESS (1,100) *OPERATOR IDENTIFICATION *AUTHORIZED OPERATOR ADDRESSES (1,50)
37	COMMAND DICTIONARY	CONTAINS THE DATA NECESSARY TO DETERMINE COMMAND CLASSIFICATION AND EXECUTABILITY AND TO PLAN FOR EXECUTION. DATA STORED FOR COMMAND SEQUENCES MAKING UP AN OPERATION, AS DETERMINED BY THE CUSTOMER OR OPERATOR. *COMMAND BY CUSTOMER (1,30) *CUSTOMER IDENTIFICATION *CUSTOMER CLASSIFICATION *COMMAND IDENTIFICATION *COMMAND CLASSIFICATION *CONDITION FOR EXECUTION (1-N) *INTERFERENCES(1-N) *SUSCEPTABILITIES (1-N) *STORED COMMAND SEQUENCE (OPTIONAL)
67	SIMULATION MODELS	CONTAINS SIMULATION MODELS TO BE USE FOR HARDWARE AND SOFTWARE DEVELOPMENT AND INTEGRATION AND FOR LAUNCH SUPPORT, CHECKOUT, AND TRAINING. *MODELS *SOFTWARE DEVELOPMENT MODELS *COMMUNICATION MODELS *CUSTOMER SOFTWARE MODELS *OPERATOR SOFTWARE MODELS *CONTRACTOR SOFTWARE MODELS *SOFTWARE INTEGRATION MODELS *SPACE STATION SIMULATIONS *TRAINING EXERCIZE MODELS
84	RECURRING OPERATIONS	CONTAINS OPERATION MASTERS OR CHARACTERISTICS FOR RECURRING SPACE STATION, SPACECRAFT, AND PAYLOAD OPERATIONS TO BE USED IN SCHEDULING AND SCHEDULE CONFLICT VIOLATIONS. *OPERATION MASTERS *PAYLOAD OPERATION MASTERS (1*-N) *OPERATION CODE *TIMELINE *RESOURCE PROFILE *SENSITIVITIES *INTERFERENCES *POTENTIAL CONFLICTS *SPACE STATION OPERATION MASTERS (1*-N)

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*OPERATION CODE *TIMELINE *RESOURCE PROFILE *SENSITIVITIES *INTERFERENCES *POTENTIAL CONFLICTS *MAJOR EVENT OPERATION MASTERS (1*-N) *OPERATION CODE *TIMELINE *RESOURCE PROFILE *SENSITIVITIES *INTERFERENCES *POTENTIAL CONFLICTS
85	INT. LOGISTICS PLAN	CONTAINS INTEGRATED LOGISTICS PLANS FOR ALL SSPE'S. *ORBITAL MAINTENANCE PLAN *SPACE STATION ORBITAL MAINTENANCE PLAN *PLATFORM ORBITAL MAINTENANCE PLAN (1*-4) *TECHNICAL SUPPORT PLAN *SUPPORT EQUIPMENT PLAN *SPACE STATION SUPPORT EQUIPMENT PLAN *PLATFORM SUPPORT EQUIPMENT PLAN(1*-4) *SUPPLY SUPPORT PLAN *FACILITIES PLAN *TRANSPORTATION PLAN *TECHNICAL INFORMATION SYSTEM PLAN *SPACE STATION INFORMATION PLAN *PLATFORM INFORMATION PLAN (1*-4) *PERSONNEL TRAINING PLAN *SPACE STATION TRAINING PLAN *PLATFORM TRAINING PLAN (1*-4)
87	MAJOR EVENT OPERATIONS	CONTAINS PRIOR OPERATING SCHEDULES FOR EACH TYPE OF MAJOR EVENT TO SERVE AS A REFERENCE IN DEVELOPING SCHEDULES. *MAJOR EVENT OPERATIONS *NSTS ORBITER OPERATIONS *OMV OPERATIONS *OTV OPERATIONS *LAUNCH SERVICES OPERATIONS *FREE FLYERS SERVICES OPERATIONS *BUILDUP OPERATIONS *MAJOR MAINTENANCE OPERATIONS *PAYLOAD ADDITION OPERATIONS
89	OPERAT. EVENTS SCHEDULE	CONTAINS TIME TAGGED COMMANDS TO EXECUTE SCHEDULED OPERATIONS. *TIME TAGGED OPERATION (1*-N) *EXECUTION TIME *OPERATION *ADDRESS

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*COMMAND
90	SHORT TERM SCHEDULE	CONTAINS SHORT TERM OPERATING SCHEDULES FOR ALL SSP FACILITIES AND PAYLOADS. INCLUDES COORDINATED USE OF END-TO-END DATA NETWORKS AMONG SSPE'S. *SCHEDULED OPERATIONS *SCHEDULED SPACE STATION OPERATIONS *SCHEDULED CORE OPERATIONS *SCHEDULED PAYLOAD OPERATIONS *SCHEDULED RESOURCE UTILIZATION *THERMAL LOAD FORECASTS *ELECTRICAL LOAD FORECASTS *CREW TIME FORECASTS *COMMUNICATION TRAFFIC FORECASTS *SCHEDULED COP OPERATIONS (SIMILAR TO SPACE STATION) *SCHEDULED POP OPERATIONS (SIMILAR TO SPACE STATION) *SCHEDULED SSDS FACILITY OPERATIONS *FACILITY (1*-N) *SCHEDULED OPERATIONS *SCHEDULED RESOURCE UTILIZATION
91	TECHNICAL DOCUMENTS	CONTAINS MANUALS, PROCEDURES, AND CHECKLISTS FOR OPERATING AND MAINTAINING SSPE'S. *OPERATING PROCEDURE *SPACE STATION GROUND OPERATION *SPACE STATION ONBOARD OPERATION *PLATFORM OPERATION *OMV OPERATION *OTV OPERATION *PAYLOAD OPERATION *MAINTENANCE PROCEDURES *SPACE STATION MAINTENANCE PROCEDURES *PLATFORM MAINTENANCE PROCEDURES(1*-4) *OMV MAINTENANCE PROCEDURES *OTV MAINTENANCE PROCEDURES *PAYLOAD MAINTENANCE PROCEDURES (1*-80) *FREE FLYER SERVICING AND MAINTENANCE (1*-50) *ASSEMBLY AND TEST PROCEDURES (1*-30) *CHECKLISTS (1*-120)
103	INVENTORIES	CONTAINS CURRENT INVENTORIES AND RESUPPLY NEEDS FOR ALL SSP FACILITIES. *GROUND FACILITY INVENTORIES (SEE 253) *CUSTOMER INVENTORIES (SEE 259) *STATION INVENTORIES (SEE 260)
108	MATERIALS USAGE	CONTAINS EXPECTED AND ACTUAL USAGE RATES OF CONSUMABLES AND EXPENDABLES TO DETERMINE EXCESSIVE LEVELS OF USAGE AND REVISE SUPPLY SUPPORT PLANS OR DETERMINE REASONS FOR EXCESSIVE USAGE.

DS_ NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*MATERIALS USAGE *SPACE STATION USAGE *PLATFORM USAGE (1*-4) *PAYLOAD USAGE (1*-80) *GROUND FACILITY USAGE (1*-30)
109	MANUALS	CONTAINS CURRENT SYSTEM MANUALS TO BE USED THROUGHOUT THE SYSTEM AND AVAILABLE BY ELECTRONIC DATA TRANSFER.
117	TASK STATUS LOG	CONTAINS PENDING TASKS TO BE ACCOMPLISHED BY THE ONBOARD SYSTEMS, CREW AND THEIR CURRENT STATUS. *PENDING TASKS *TASK *NEED DATE *TASK STATUS
117	TASK STATUS LOG	CONTAINS CURRENT LIST OF CREW SYSTEM TASKS TO BE PERFORMED, SCHEDULE DATA, AND DISPOSITION. *CREW TASKS (0113) *CREW TASK PENDING *CREW TASK TO BE PERFORMED *SCHEDULED REQUIREMENTS *CREW TASK SCHEDULE *TASKS COMPLETED *PERFORMED BY *TIME COMPLETED *ELASPED TIME *SYSTEM TASKS *SYSTEM TASKS PENDING *SYSTEM TASKS COMPLETED
120	ENVIRONMENT	CONTAINS CURRENT ESTIMATE OF RESIDUAL ATMOSPHERIC DENSITY AND MAGNETIC FIELD. *DENSITY *MAGNETIC FIELD
121	NAV. STATE/ATTITUDE	CONTAINS CURRENT SPACE STATION NAVIGATION STATE VECTOR AND ATTITUDE. *SPACE STATION NAVIGATION STATE/ATTITUDE *STATE *POSITION *VELOCITY *ATTITUDE *ORBIT *ATTITUDE *INCLINATION *NODAL CROSSING *BETA ANGLE *CONSTELLATION NAVIGATION STATE (1*-4) *CONSTELLATION ELEMENT *STATE *POSITION *VELOCITY

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DS_ NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*ATTITUDE *ORBIT *ATTITUDE *INCLINATION *NODAL CROSSING *BETA ANGLE *COFLYER RELATIVE STATES (1*-4) *COFLYER ELEMENT *RELATIVE STATE *RELATIVE POSITION *RELATIVE VELOCITY *ATTITUDE *TIME
123	ENGR. DATA ARCHIVE	CONTAINS HISTORICAL DATA RECORDS AT LEVEL 1B AND BELOW FOR SSPE'S. *ARCHIVAL ENGINEERING DATA *ANALYZED CORE DATA *DATA CATALOG *RETRIEVAL *OPERATOR COMMUNICATION *OPERATOR VOICE COMMUNICATION *OPERATOR VIDEO COMMUNICATION
124	SHORT TERM CORE SCHEDULE	CONTAINS SPACE STATION CURRENT AND RECENT OPERATING DATA FOR USE BY GROUND OPERATORS AND SYSTEMS IN MONITORING AND CONTROLLING THE SPACE STATION. *CORE OPERATING DATA
125	DATA ACCOUNTING	CONTAINS A LIST OF ALL CUSTOMER AND CORE DATA DOWNLINKED DURING THE LAST TBD DAYS AND CURRENT LOCATION. *CORE DATA ACCOUNTING *IDENTIFICATION *DESCRIPTION *CURRENT LOCATION *CUSTOMER DATA ACCOUNTING *IDENTIFICATION *CUSTOMER *TIME TAG *CURRENT LOCATION
126	CORE DATA BUFFER	PROVIDES TEMPORARY STORAGE FOR RAW, BULK CORE DATA PRIOR TO PROCESSING. *BULK CORE DATA *CORE STATUS DATA (SEE 0011 CORE STATUS) *CREW STATUS DATA (SEE 0204 CREW STATUS) *OBJECT STATES (SEE 0137 OBJECT STATES) *DATA SENT
130	SSCC FACILITIES STATUS	CONTAINS CONFIGURATION AND EQUIPMENT AVAILABILITY/CAPABILITY AND USAGE FOR SSCC FACILITIES.

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*SSCC FACILITIES STATUS *CONFIGURATION *EQUIPMENT STATUS *FACILITIES USAGE *INVENTORIES
132	SATELLITE FAC. STATUS	CONTAINS CURRENT STATUS OF MULTIPLE GROUND FACILITIES TO BE DEFINED DURING TASKS 3 AND 4. *RDC FACILITIES STATUS (1*-N) *CONFIGURATION *EQUIPMENT STATES *FACILITIES USAGE *INVENTORIES *POCC FACILITIES STATUS (1*-N) *CONFIGURATION *EQUIPMENT STATES *FACILITIES USAGE *INVENTORIES *FREE FLYER CONTROL STATUS *CONFIGURATION *EQUIPMENT STATES *FACILITIES USAGE *INVENTORIES *POP CONTROL CENTER STATUS *CONFIGURATION *EQUIPMENT STATES *FACILITIES USAGE *INVENTORIES *COP CONTROL CENTER STATUS *CONFIGURATION *EQUIPMENT STATES *FACILITIES USAGE *INVENTORIES *ENGINEERING DATA CENTER STATUS *CONFIGURATION *EQUIPMENT STATES *FACILITIES USAGE *INVENTORIES
133	DHC FACILITIES STATUS	CONTAINS CONFIGURATION AND EQUIPMENT AVAILABILITY /CAPABILITY AND USAGE FOR THE DATA HANDLING CENTER FACILITIES. *DHC FACILITIES STATUS *CONFIGURATION *EQUIPMENT STATUS *FACILITIES USAGE *INVENTORIES
135	DEV. FACILITIES STATUS	CONTAINS CONFIGURATION AND EQUIPMENT AVAILABILITY /CAPABILITY AND USAGE FOR THE DHC FACILITIES. *DHC FACILITIES STATUS

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*CONFIGURATION *EQUIPMENT STATUS *FACILITIES USAGE *TRAINING STATUS *INVENTORIES
137	OBJECT STATES	CONTAINS ORBIT AND NAVIGATION STATE DATA FOR NON-COOPERATING OBJECTS IN OR NEAR THE SPACE STATION ORBIT. *OBJECT NAVIGATION STATE (1*-N) *OBJECT IDENTIFICATION *OBJECT STATE *POSITION *VELOCITY *OBJECT ORBIT *ATTITUDE *INCLINATION *ECCENTRICITY *NODAL CROSSING *OBJECT RELATIVE STATE *RELATIVE POSITION *RELATIVE VELOCITY
139	REALTIME DATA BUFFER	CONTAINS REALTIME PAYLOAD AND CORE DATA AWAITIG DOWNLINK. *REALTIME DATA *REALTIME DATA QUEUEING LIST
141	P/L OPS DATA BASE	CONTAINS CURRENT DATA PERTINENT TO ONBOARD CUSTOMER/OPERATOR REALTIME OPERATION OF PAYLOAD. *PAYLOAD OPERATING DATA (1*-30) *PAYLOAD *OPERATING DATA
142	PREPROCESSED DATA BUFFER	CONTAINS DATA IN TEMPORARY BUFFER STORAGE BETWEEN GENERAL PREPROCESSING (PARITAL LEVEL 0) AND TRANSMISSION. *PREPROCESSED DATA
149	OTV STATUS	CONTAINS CURRENT INFORMATION ON THE CONFIGURATION AND OPERATIONAL READINESS OF THE OTV, TOGETHER WITH KEY CURRENT MISSION DATA. *OTV STATUS (1-2) *OTV IDENTIFICATION *OTV READINESS *CHECKOUT DIAGNOSTICS *CONFIGURATION *OTV MISSION DATA *RENDEZVOUS TARGETING *OTV STATE *POSITION *VELOCITY *RELATIVE POSITION

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*RELATIVE VELOCITY *OTV ATTITUDE *OTV PAYLOAD STATUS
150	PROCEDURES	CONTAINS RECONFIGURABLE FILE OF PROCEDURE FOR OPERATION AND MAINTENANCE OF SSPE'S AND PAYLOADS, INCLUDINT SPACE STATION. *SPACE STATION PROCEDURE *ABNORMAL AND EMERGENCY PROCEDURES *OPERATING PROCEDURES *MAINTENANCE PROCEDURES *EVA PROCEDURES *DECONTAMINATION PROCEDURES *OTV MAINTENANCE PROCEDURES *OMV MAINTENANCE PROCEDURES *CHECKLISTS *SSPE PROCEDURES (1*-N) *SSPE OPERATING PROCEDURES *SSPE MAINTENANCE PROCEDURES
151	MAINTENANCE LOG	CONTAINS A RECORD OF SSPE MAINTENANCE ACTIONS PERFORMED. *MAINTENANCE ACTIONS *OTV MAINTENANCE ACTION *MAINTENANCE ACTION *DATA PERFORMED *PART NUMBER *OMV MAINTENANCE ACTION (SIMILAR TO OTV) *STATION MAINTENANCE ACTION (SIMILAR TO OTV) *PAYLOAD MAINTENANCE ACTION (SIMILAR TO OTV) *EMU MAINTENANCE ACTION *MMU MAINTENANCE ACTION *SSPE MAINTENANCE ACTION
153	OMV STATUS	CONTAINS CURRENT INFORMATION ON THE CONFIGURATION AND OPERATION READINESS OF THE OMV, TOGETHER WITH KEY CURRENT MISSION DATA. *OMV STATUS (1-3) *OMV IDENTIFICATION *OMV READINESS *CHECKOUT DIAGNOSTICS *CONFIGURATION *OMV MISSION DATA *RENDEZVOUS TARGETING *OMV STATE *POSITION *VELOCITY *RELATIVE POSITION (1-3) *RELATIVE VELOCITY (1-2) *OMV ATTITUDE *OMV PAYLOAD STATUS

DS_ NO	DS_NAME	FUNCTIONAL_DESCRIPTION
171	MODE STATUS	CONTAINS CURRENT OPERATIONS MODE FOR SPACE STATION SYSTEM, SUBSYSTEM AND PAYLOAD SUBSYSTEM AND PAYLOAD STATUS STORES. *MODES *SPACE STATION MODES *CORE SYSTEM MODE (1*-12) *PAYLOAD MODE (1*-30)
174	NAV. STATE FORECAST	CONTAINS FORECAST NAVIGATION STATES FOR THE SPACE STATION AND COFLYER. *SPACE STATION NAVIGATION STATE FORECAST *(CONTENT SIMILAR NAV STATE/ATTITUDE) *COFLYER NAVIGATION STATE FORECAST (1*-100) *(CONTENT SIMILAR NAV STATE/ATTITUDE)
175	STAR/OBJECT CATALOG	CONTAINS ABSOLUTE REFERENCE COORDINATES FOR MAJOR STARS AND SATELLITES TO BE USED IN DETERMINING EPHEMERIDES. *STAR CATALOG (1*-N) *OBJECT CATALOG *TDRSS (1*-3)
176	EPHEMERIDES	CONTAINS CURRENT RELATIVE LOCATION OF SPACE OBJECTS SUCH AS SATELLITES, SUN, MOON, PLANETS AND STARS. *OBJECT EPHEMERIDES *TDRSS SATELLITE *GPS SATELLITE *SUN *MOON *PLANETS *STAR EPHEMERIDES
193	POWER SYSTEM STATUS	CONTAINS CURRENT DATA ON THE STATUS, MODES OR CONFIGURATION OF POWER SYSTEM EQUIPMENT, AND FUNCTIONING OF POWER EQUIPMENT. *POWER SYSTEM STATUS *ARRAY STATUS *ARRAY MODE *ARRAY FAULTS *ARRAY PERFORMANCE *STORAGE STATUS *STORAGE CONFIGURATION *STORAGE FAULTS *STORAGE PERFORMANCE *SOURCE CONFIGURATION *ENERGY FORECAST *DISTRIBUTION STATUS *DISTRIBUTION CONFIGURATION *DISTRIBUTION FAULTS *LOAD STATUS *LOADS CONNECTED *POWER DEMAND

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*ENERGY HISTORY *MAINTENANCE NEEDS
199	ECLSS STATUS	CONTAINS CURRENT ECLSS EQUIPMENT OPERATING MODES AND FUNCTIONING. *ECLSS DATA *ATMOSPHERIC SYSTEM DATA *SYSTEM MODE *TEMPERATURE *COMPOSITION *PRESSURE *HUMIDITY *HAZARDOUS GASES, VAPORS *EQUIPMENT STATUS *MAKING FLOW RATES *MAINTENANCE NEEDS *GREY WATER SYSTEM STATUS *CONFIGURATION *LEVEL *CONTAMINATIONS *MAINTENANCE NEEDS *POTABLE WATER SYSTEM STATUS *CONFIGURATION *LEVEL *CONTAMINATIONS *MAINTENANCE NEEDS
200	THERMAL SYSTEM STATUS	CONTAINS CURRENT DATA ON THE MODE, FUNCTIONING AND PERFORMANCE OF THE THERMAL CONTROL SYSTEM EQUIPMENT. *THERMAL SYSTEM DATA *OPERATING MODE *THERMAL SYSTEM STATUS *BUS AND RADIATOR FLUIDS LOOP STATUS *PAYLOAD I/F HX PERFORMANCE *BUS PERFORMANCE *THERMAL LOAD CAPACITY FORECAST *MAINTENANCE NEEDS
203	CREW STATUS	CONTAINS CURRENT RECORDS OF CREW MEDICAL DATA, OPERATIONS, SCHEDULES, AND TRAINING. *CREW DATA *MEDICAL RECORD *PHYSIOLOGICAL RECORD *NORMAL PHYSIOLOGICAL READINGS *ABNORMAL PHYSIOLOGICAL DATA *REDUCED/ANALYZED PHYSIOLOGICAL DATA *NUTRIENT BALANCE *NUTRIENT INTAKE *EXERCIZE PLAN *ENERGY EXPENDITURE *TRAINING RECORDS

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
		*PROCEDURES COMPLETED *PROCEDURES REQUIRED *CREW PRIVATE MAIL
203	MASS PROPERTIES CONFIG.	CONTAINS STATION MASS PROPERTIES AREAS, MOMENT OF INTERIA, AND FLEXIBLE BODY MODES. *MASS PROPERTIES *STATION MASS *MOMENT OF INTERIA *MASS DISTRIBUTION *OMV MASS *OTV MASS *NSTS ORBITER MASS *LARGE CONSTRUCTION MASS *AREA PROPERTIES *STATION AREA (3) *AREA MOMENT (3) *NSTS AREA (3) *LARGE CONSTRUCTION AREA (3) *ARTICULATED AREAS *RADIATOR CONFIGURATION *SOLAR ARRAY CONFIGURATION *THRUSTER PROPERTIES(1-N) *THRUST *VECTOR DIRECTION (3) *MOMENT AREA *DYNAMIC PROPERTIES *FLEXIBLE BODY MODES (30) *DAMPING COEFFICIENTS (30)
215	RECREATION	CONTAINS VIDEO MATERIAL FOR CREW RECREATION. *RECREATION MATERIAL
228	LONG TERM ARCHIVE	CONTAINS ARCHIVES OF CUSTOMER DATA FOR UP TO TWO YEARS. DATA ARE PROCESSED AT LEAST TO LEVEL 0, AND MAY BE PROCESSED TO LEVELS BEYOND 1A BY THE CUSTOMER. *ARCHIVAL DATA *LEVEL 0 CUSTOMER DATA *LEVEL 1A CUSTOMER DATA *HIGHER LEVEL CUSTOMER DATA
230	PAYLOAD DATA BUFFER	PROVIDES TEMPORARY STORAGE FOR RAW, BULK PAYLOAD DATA PRIOR TO PROCESSING. *BULK CUSTOMER DATA (1*-32) *PAYLOAD *CUSTOMER *PAYLOAD DATA
231	CUSTOMER COMMANDS	CONTAINS STORED COMMAND SEQUENCES. *CUSTOMER COMMANDS (1*-100) *IDENTIFIES *COMMAND SEQUENCE

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
240	COMM. EQUIPMENT STATUS	(SEE 254)
241	COMMUNICATION MONITOR	(SEE 254)
243	RECONFIG. PROCEDURES	CONTAINS A STANDARD LIBRARY OF AUTOMATED RECONFIGURATION PROCEDURES TO MAINTAIN MAXIMUM COMMUNICATIONS CAPABILITY IN THE EVENT OF COMMUNICATIONS EQUIPMENT MALFUNCTION OR FAILURE. *RECONFIGURATION PROCEDURES
244	TELEMETRY TABLE	CONTAINS TELEMETRY ROUTING INFORMATION TO SELECT THE MOST APPROPRIATE NETWORK ROUTING FOR PURPOSE AND CORE TELEMETRY. *TELEMETRY ROUTING *CORE ROUTING *PAYLOAD ROUTING (1*-30)
245	NETWORK PLAN LINK PRIOR.	CONTAINS NETWORK PLANS AND PRIORITIES FOR LINK OPTIONS. *NETWORK PLAN *LINK PRIORITIES
252	EVA STATUS	CONTAINS CURRENT STATUS, MODE AND FUNCTION OF EMU, MMU, AIRLOCK AND OTHER EVA EQUIPMENT. *EVA DATA *EMU STATUS *CONSUMABLE LEVELS *OXYGEN LEVELS *NITROGEN LEVELS *WATER LEVEL *BATTERY CHARGE *CONTAMINATION LEVELS *FAULTS *MAINTENANCE NEEDS *MMU STATUS *CONSUMABLE LEVELS *PROPELLANT LEVEL *BATTERY CHARGE *COOLANT *CONTAMINATION LEVELS *FAULTS *MAINTENANCE NEEDS *AIRLOCK STATUS *AIRLOCK MODE *AIR COMPOSITION *AIR PRESSURE *AIR TEMPERATURE *AIR HUMIDITY *CONTAMINATION LEVELS *MAINTENANCE NEEDS

DS_ NO	DS_NAME	FUNCTIONAL_DESCRIPTION
253	GN & C STATUS	CONTAINS CURRENT DATA ON THE STATUS OF MODES AND FUNCTIONS OF GN & C EQUIPMENT. *GN & C STATUS *GN & C MODE *ATTITUDE SENSOR STATUS *RATE GYRO STATUS *STAR TRACKER STATUS *RCS STATUS *ATTITUDE CONTROL STATUS *CMG STATUS *FLEXIBLE BODY MODE SENSOR STATUS *MAGNETIC TORQUE STATUS *POINTING MOUNT STATUS *MAIN SEQUENCE NEEDS
254	C & T STATUS	CONTAINS CURRENT DATA ON COMMUNICATION AND TRACKING SYSTEM EQUIPMENT MODES AND FUNCTIONING. *COMMUNICATION MONITOR (241) *TRACKING STATUS *TRACKING MODE *LONG RANGE TRACKER STATUS *PROXIMITY TRACKER STATUS *TRANSMITTER/RECEIVER STATUS *GPS RECEIVER STATUS *TDRSS TRANSMITTER/RECEIVER STATUS *MULTIACCESS LINK STATUS *STATION COMMUNICATION STATUS *AUDIO SYSTEM STATUS *VIDEO SYSTEM STATUS *COMMUNICATION EQUIPMENT STATUS *MAINTENANCE NEEDS *EQUIPMENT AVAILABILITY *CONTROL PARAMETER STATUS
256	TETHER STATUS	CONTAINS CURRENT STATUS OF TETHER SYSTEM. *TETHER STATUS *MODE *STATE
258	GROUND FACILITY INVENT.	CONTAINS CURRENT INVENTORIES AND RESUPPLY NEEDS FOR GROUND FACILITIES. *GROUND INVENTORIES (1*-30) *MATERIAL LOCATION, STATES *RESUPPLY REQUIREMENTS
259	CUSTOMER INVENTORIES	CONTAINS CURRENT INVENTORIES AND RESUPPLY NEEDS FOR CUSTOMER PAYLOADS. *CUSTOMER INVENTORIES (1*-80) *MATERIAL LOCATION, STATUS *EQUIPMENT LOCATION, STATUS *RESUPPLY REQUIREMENTS

DS_NO	DS_NAME	FUNCTIONAL_DESCRIPTION
260	STATION INVENTORIES	CONTAINS CURRENT INVENTORIES AND RESUPPLY NEEDS FOR THE SPACE STATION AND PLATFORM. *STATION INVENTORIES *MATERIAL LOCATION, STATUS *RESUPPLY NEEDS *PLATFORM INVENTORIES(1*-4) *MATERIAL LOCATION, STATUS *RESUPPLY NEEDS

E.2 Data Store Input/Output

The data flows to and from the data stores contents the functions utilizing the data store, and the implications of various physical locations for the data store.

This section shows the data store input and output data flows. The first column shows the number of the function communicating with the data store. Where a 0.0 appears, the communicating element is an external agency. The data store number and name follow. Next is an indicator of whether the data flow is an input to the data store (I) or an output from the data store (O). The data flow diagram number and data flow name follow. When an external agency is involved, its number and name come next. The final entry shows the level of the data flow diagram in which the data flow appears.

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
0.0	11	CORE STATUS	I	0.0	FACILITIES STATUS	0010 DATA PROCESSING RESO	0
1.0	11	CORE STATUS	O	0.0	CORE DATA		0
3.0	11	CORE STATUS	O	0.0	RESOURCE FORECASTS, CORE SYSTEMS		0
4.0	11	CORE STATUS	I	0.0	CORE SYSTEMS STATUS		0
4.0	11	CORE STATUS	O	0.0	CORE SYSTEMS STATUS		0
1.2	11	CORE STATUS	O	1.0	BULK CORE DATA		1
1.2.5	11	CORE STATUS	O	1.2	CORE DATA		2
2.4	11	CORE STATUS	O	2.0	CORE, ANCILLARY DATA		1
2.5	11	CORE STATUS	O	2.0	CORE DATA		1
2.3.2	11	CORE STATUS	O	2.3	SYSTEM MODE		2
2.5.1	11	CORE STATUS	O	2.5	CORE DATA		2
2.5.2	11	CORE STATUS	O	2.5	CORE DATA		2
3.2	11	CORE STATUS	O	3.0	RESOURCES AVAILABLE FORECAST		1
3.3	11	CORE STATUS	O	3.0	SYSTEM STATUS		1
3.2.4	11	CORE STATUS	O	3.2	RESOURCES FORECASTS		2
3.2.5	11	CORE STATUS	O	3.2	RESOURCES AVAILABLE		2
3.3.2	11	CORE STATUS	O	3.3	CORE SYSTEMS STATUS		2
3.4.4	11	CORE STATUS	O	3.4	CORE SYSTEM MODE, STATUS		2
4.1	11	CORE STATUS	I	4.0	GN & C STATUS		1
4.2	11	CORE STATUS	I	4.0	NON-GN & C STATUS		1
4.5	11	CORE STATUS	O	4.0	CORE DATA		1
4.1.3.4	11	CORE STATUS	I	4.1.3	GIMBAL POSITION		3
4.1.6.1	11	CORE STATUS	I	4.1.6	STATUS		3
4.1.6.3	11	CORE STATUS	I	4.1.6	STATUS		3
4.1.6.4	11	CORE STATUS	I	4.1.6	STATUS		3
4.2.1	11	CORE STATUS	O	4.2	SYSTEM MODE CHANGE		2
4.2.1	11	CORE STATUS	I	4.2	POWER SYSTEM STATUS		2
4.2.2	11	CORE STATUS	O	4.2	SYSTEM MODE CHANGE		2
4.2.2	11	CORE STATUS	I	4.2	THERMAL SYSTEM STATUS		2
4.2.3	11	CORE STATUS	I	4.2	MECHANISM STATUS		2
4.2.3	11	CORE STATUS	O	4.2	SYSTEM MODE CHANGE		2
4.2.4	11	CORE STATUS	I	4.2	ECLSS STATUS, MODE		2
4.2.4	11	CORE STATUS	O	4.2	SYSTEM MODE CHANGE		2
4.2.5	11	CORE STATUS	O	4.2	SYSTEM MODE CHANGE		2
4.2.5	11	CORE STATUS	I	4.2	C & T STATUS		2
4.2.3.1	11	CORE STATUS	I	4.2.3	MECHANISM STATUS		3
4.2.3.2	11	CORE STATUS	I	4.2.3	MRMS STATUS		3
4.2.3.3	11	CORE STATUS	I	4.2.3	DOCKING STATUS		3
4.3.2	11	CORE STATUS	I	4.3	CAUTION AND WARNING EVENTS		3
4.3.2.1	11	CORE STATUS	I	4.3.2	CAUTION AND WARNING EVENTS		3
4.3.2.3	11	CORE STATUS	O	4.3.2	CORE STATUS		3
4.4.2	11	CORE STATUS	I	4.4	DELETED EVENTS AND ABNORMAL COND		2
4.4.1.4	11	CORE STATUS	I	4.4.1	MODULE ALIGNMENT		3
4.5.1	11	CORE STATUS	O	4.5	MODE,CORE SYSTEM STATUS		2
4.5.3	11	CORE STATUS	O	4.5	GIMBAL POSITION AND EQUIPMENT LO		2
4.5.4	11	CORE STATUS	I	4.5	SYSTEM FAULTS AND MAINTENANCE NE		2
4.5.4	11	CORE STATUS	O	4.5	MODE, CORE SYSTEM STATUS		2
4.5.5	11	CORE STATUS	I	4.5	SYSTEM FAULTS AND MAINTENANCE NE		2
4.5.4.1	11	CORE STATUS	O	4.5.4	CORE SYSTEM STATUS		3
4.5.4.1	11	CORE STATUS	I	4.5.4	FAULTS, MAINTENANCE NEEDS		3
4.5.4.2	11	CORE STATUS	O	4.5.4	CORE SYSTEM STATUS		3
4.5.4.3	11	CORE STATUS	O	4.5.4	CORE SYSTEM STATUS		3
6.5	11	CORE STATUS	O	6.0	CORE DATA		1

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
6.7	11	CORE STATUS	O	6.0	CORE DATA		1
7.1	11	CORE STATUS	O	7.0	MAINTENANCE NEEDS		1
7.2	11	CORE STATUS	O	7.0	CORE SYSTEM USAGE		1
7.1.1	11	CORE STATUS	O	7.1	MAINTENANCE NEEDS		2
0.0	16	PAYLOAD STATUS	I	0.0	STATUS, MODE	0013 PAYLOADS AND CONSTEL	0
3.0	16	PAYLOAD STATUS	O	0.0	PAYLOAD MODE, STATUS		0
1.2.5	16	PAYLOAD STATUS	O	1.2	PAYLOAD STATUS, MODE		2
2.5	16	PAYLOAD STATUS	I	2.0	PAYLOAD STATUS		1
2.5.1	16	PAYLOAD STATUS	O	2.5	PAYLOAD STATUS		2
2.5.1	16	PAYLOAD STATUS	I	2.5	PROCESSED PAYLOAD DATA		2
2.5.2	16	PAYLOAD STATUS	O	2.5	PAYLOAD STATUS		2
3.3	16	PAYLOAD STATUS	O	3.0	SYSTEMS STATUS		1
3.2.1	16	PAYLOAD STATUS	O	3.2	PAYLOAD STATUS		2
3.3.2	16	PAYLOAD STATUS	O	3.3	PAYLOAD SYSTEMS STATUS		2
3.3.4	16	PAYLOAD STATUS	O	3.3	PAYLOAD MODE CHANGES		2
0.0	16	PAYLOAD STATUS	I	3.4	PAYLOAD MODE	0023 SPACE STATION PAYLOA	2
0.0	16	PAYLOAD STATUS	I	3.4	CONSTELLATION MODE	0020 OMV, OTV AND CONSTEL	0
3.4.4	16	PAYLOAD STATUS	O	3.4	PAYLOAD MODE, STATUS		2
4.5	16	PAYLOAD STATUS	O	4.0	PAYLOAD STATUS		1
4.1.4	16	PAYLOAD STATUS	O	4.1	PAYLOAD CO-FLYER MODE		2
4.3.2.2	16	PAYLOAD STATUS	O	4.3.2	PAYLOAD MODE		3
4.3.2.3	16	PAYLOAD STATUS	O	4.3.2	PAYLOAD STATUS		3
4.5.2	16	PAYLOAD STATUS	O	4.5	PAYLOAD STATUS		2
4.5.3	16	PAYLOAD STATUS	O	4.5	PAYLOAD LOCATION		2
4.5.5	16	PAYLOAD STATUS	I	4.5	PAYLOAD FAULT		2
7.1	16	PAYLOAD STATUS	O	7.0	RESUPPLY NEEDS		1
7.2	16	PAYLOAD STATUS	O	7.0	SSIS USAGE		1
7.1.1	16	PAYLOAD STATUS	O	7.1	MAINTENANCE NEEDS		2
3.0	17	MASTER PLAN	O	0.0	PROGRAM SCHEDULE		0
0.0	17	MASTER PLAN	I	3.0	MASTER PLAN UPDATES	0112 TMIS	1
3.1	17	MASTER PLAN	O	3.0	PROGRAM SCHEDULE		1
0.0	17	MASTER PLAN	I	3.1	MASTER PLAN UPDATES	0112 TMIS	2
3.1.4	17	MASTER PLAN	I	3.1	SCHEDULE UPDATES		2
3.1.4	17	MASTER PLAN	O	3.1	PROGRAM SCHEDULE		2
3.2.1	17	MASTER PLAN	O	3.2	PROGRAM SCHEDULE		2
4.1.4.3	17	MASTER PLAN	O	4.1.4	OMV,OTV LAUNCHES		3
5.1	17	MASTER PLAN	O	5.0	PROGRAM SCHEDULE		1
5.2	17	MASTER PLAN	O	5.0	PROGRAM SCHEDULES		1
5.2.1	17	MASTER PLAN	O	5.2	PROGRAM SCHEDULE		2
6.8	17	MASTER PLAN	I	6.0	MAJOR EVENTS		1
6.8	17	MASTER PLAN	O	6.0	MAJOR EVENTS		1
6.8.1	17	MASTER PLAN	O	6.8	MAJOR EVENTS		2
0.0	18	FACILITIES STATUS	I	0.0	CONFIGURATION, STATUS	0010 DATA PROCESSING RESO	0
4.0	18	FACILITIES STATUS	O	0.0	CORE SYSTEM, FACILITIES STATUS		0
3.2.4	18	FACILITIES STATUS	O	3.2	CONFLICTS		2
4.5	18	FACILITIES STATUS	O	4.0	FACILITIES STATUS		1
7.1	18	FACILITIES STATUS	O	7.0	MAINTENANCE NEEDS		1
7.2	18	FACILITIES STATUS	O	7.0	FACILITIES USAGE		1
7.1.1	18	FACILITIES STATUS	O	7.1	MAINTENANCE NEEDS		2
7.4	18	FACILITIES STATUS	O	7.4	INVENTORIES		1
7.4.1	18	FACILITIES STATUS	O	7.4	CUSTOMER INVENTORIES, CHANGES		2
7.4.2	18	FACILITIES STATUS	O	7.4	STATION INVENTORIES, CHANGES		2
7.4.3	18	FACILITIES STATUS	O	7.4	GROUND FACILITY INVENTORIES, STA		2

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
1.1	21	PRIORITIES	O	1.0	DATA RETURN PRIORITY		1
1.2	21	PRIORITIES	O	1.0	DATA RETURN PRIORITY		1
1.1.2	21	PRIORITIES	O	1.1	DATA RETURN PRIORITY		2
1.2.2	21	PRIORITIES	O	1.2	DATA RETURN PRIORITY		2
3.2.5	21	PRIORITIES	O	3.2	OPERATING PRIORITIES		2
3.4.4	21	PRIORITIES	O	3.4	OPERATION PRIORITY		2
5.2.3	21	PRIORITIES	O	5.2	PRIORITIES		2
3.2	21	PRIORITITES	O	3.0	OPERATING PRIORITIES		1
0.0	25	DELAYED DATA	I	1.0	DELAYABLE PAYLOAD DATA	0023 SPACE STATION PAYLOA	1
0.0	25	DELAYED DATA	I	1.0	DELAYABLE PAYLOAD DATA	0020 OMV, OTV, CONSTELLAT	1
1.2	25	DELAYED DATA	O	1.0	BULK PAYLOAD DATA		1
1.1.4	25	DELAYED DATA	I	1.1	EXCESS, LOW PRIORITY REAL TIME D		2
0.0	25	DELAYED DATA	O	1.2	CORE, PAYLOAD BULK DATA	0002 ONBOARD CUSTOMER/OPE	2
1.2.1	25	DELAYED DATA	I	1.2	BULK DATA		2
1.2.2	25	DELAYED DATA	O	1.2	BULK DATA AVAILABLE		2
1.2.3	25	DELAYED DATA	O	1.2	BULK DATA TO BE TRANSMITTED		2
1.2.4	25	DELAYED DATA	O	1.2	TRANSMISSIBLE BULK DATA		2
1.2.5	25	DELAYED DATA	I	1.2	FORMATTED BULK CORE, PAYLOAD DAT		2
1.2.5	25	DELAYED DATA	O	1.2	UNFORMATTED PAYLOAD DATA		2
0.0	31	COMMAND LOG	O	2.0	DISPOSITION, STATUS	0106 CUSTOMER	1
0.0	31	COMMAND LOG	O	2.0	DISPOSITION	0102 OPERATOR	1
2.1	31	COMMAND LOG	I	2.0	PAYLOAD COMMANDS ENTERED		1
2.2	31	COMMAND LOG	I	2.0	PAYLOAD COMMAND DISPOSITION		1
2.3	31	COMMAND LOG	I	2.0	CORE COMMANDS ENTERED		1
2.3.2	31	COMMAND LOG	I	2.3	CORE COMMANDS ENTERED		2
3.4	31	COMMAND LOG	I	3.0	COMMANDS EXECUTED		1
3.2.5	31	COMMAND LOG	I	3.2	UNSCHEDULED COMMAND RESOLUTION		2
3.2.6	31	COMMAND LOG	I	3.2	UNSCHEDULED COMMAND RESOLUTION		0
3.3.2	31	COMMAND LOG	I	3.3	COMMAND DISPOSITION		2
3.3.3	31	COMMAND LOG	I	3.3	COMMAND SCHEDULED		2
3.4.1	31	COMMAND LOG	I	3.4	COMMANDS EXECUTED		2
3.4.2	31	COMMAND LOG	I	3.4	COMMANDS EXECUTED		2
2.1	34	AUTHENTICATION	O	2.0	AUTHORIZED CUSTOMERS, ADDRESSES		1
2.3	34	AUTHENTICATION	O	2.0	AUTHORIZED OPERATORS, ADDRESSES		1
2.3.1	34	AUTHENTICATION	O	2.3	AUTHORIZED OPERATORS, ADDRESSES		2
3.1.3	37	COMMAND DICTIONARY	O	3.1	RESOURCES INTERFERENCES SUSCEPTI		2
3.3.2	37	COMMAND DICTIONARY	O	3.3	EXECUTION CONDITIONS		2
3.3.4	37	COMMAND DICTIONARY	O	3.3	EXECUTION CONDITIONS		0
4.5.4	67	SIMULATION MODELS	O	4.5	SYSTEM SIMULATION MODELS		2
4.5.4.2	67	SIMULATION MODELS	O	4.5.4	SYSTEM SIMULATION MODELS		3
0.0	67	SIMULATION MODELS	I	6.0	DEVELOPED SOFTWARE	0065 CUSTOMER, OPERATOR	1
6.3	67	SIMULATION MODELS	O	6.0	MODELS		1
6.5	67	SIMULATION MODELS	O	6.0	MODELS		1
6.7	67	SIMULATION MODELS	O	6.0	MODELS		1
6.8	67	SIMULATION MODELS	O	6.0	MODELS		1
6.9	67	SIMULATION MODELS	O	6.0	CURRENT MODELS		1
6.9	67	SIMULATION MODELS	I	6.0	NEW UPDATED MODELS		1
6.8.3	67	SIMULATION MODELS	I	6.8	MODEL SELECTION		2
6.8.4	67	SIMULATION MODELS	O	6.8	TRAINING SIMULATION MODELS		2
6.9.3	67	SIMULATION MODELS	O	6.9	CURRENT MODELS		2
6.9.3	67	SIMULATION MODELS	I	6.9	SOFTWARE COMPONENTS		2
6.9.4	67	SIMULATION MODELS	O	6.9	SOFTWARE COMPONENTS		2
6.9.4	67	SIMULATION MODELS	I	6.9	PENDING SOFTWARE UPDATES		2

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
6.9.5	67	SIMULATION MODELS	O	6.9	BASELINED SOFTWARE		2
6.9.7	67	SIMULATION MODELS	O	6.9			2
6.9.7	67	SIMULATION MODELS	I	6.9			2
3.1	84	RECURRING OPERATIONS	I	3.0	ADDITIONS,UPDATES		1
3.1	84	RECURRING OPERATIONS	O	3.0	OPERATION PROFILES		1
3.2	84	RECURRING OPERATIONS	O	3.0	OPERATIONS MASTERS		1
3.1.1	84	RECURRING OPERATIONS	I	3.1	PAYLOAD OPERATIONS PROFILES, UPD		2
3.1.2	84	RECURRING OPERATIONS	I	3.1	OPERATION PROFILES, UPDATES		2
3.1.3	84	RECURRING OPERATIONS	I	3.1	POTENTIAL CONFLICT POINTS		2
3.1.3	84	RECURRING OPERATIONS	O	3.1	OPERATIONS PROFILES		2
3.1.4	84	RECURRING OPERATIONS	I	3.1	MAJOR EVENT OPERATION PROFILES		2
3.2.1	84	RECURRING OPERATIONS	O	3.2	OPERATION MASTERS		2
3.2.2	84	RECURRING OPERATIONS	I	3.2	NEW/REVISED OPERATION MASTERS		2
3.2.3	84	RECURRING OPERATIONS	O	3.2	INTERFERENCES		2
3.2.4	84	RECURRING OPERATIONS	O	3.2	RESOURCES PROFILES		2
0.0	85	INTEGRATED LOGISTICS PLAN	O	7.0	CURRENT PLAN	0112 TMIS	1
7.1.2	85	INTEGRATED LOGISTICS PLAN	I	7.1	PLAN UPDATES		2
7.1.2	85	INTEGRATED LOGISTICS PLAN	O	7.1	CURRENT PLAN		2
7.1.3	85	INTEGRATED LOGISTICS PLAN	O	7.1	CURRENT PLAN		2
7.1.4	85	INTEGRATED LOGISTICS PLAN	O	7.1	CURRENT PLAN		2
3.2	86	NORMAL DAY OPERATIONS	O	3.0	PRIOR SCHEDULES		1
3.2.1	86	NORMAL DAY OPERATIONS	O	3.2	PRIOR NORMAL DAY SCHEDULES		2
3.2.6	86	NORMAL DAY OPERATIONS	I	3.2	NEW,REVISED NORMAL DAY OPERATION		2
3.2	87	MAJOR EVENT OPERATIONS	O	3.0	PRIOR SCHEDULES		1
3.2.1	87	MAJOR EVENT OPERATIONS	O	3.2	PRIOR MAJOR EVENT DAY SCHEDULES		2
3.2.6	87	MAJORS EVENT OPERATIONS	I	3.2	NEW,REVISED MAJOR EVENT OPERATIO		2
3.3	89	OPERATING EVENTS SCHEDULE	I	3.0	TIME TAGGED OPERATIONS		1
3.4	89	OPERATING EVENTS SCHEDULE	O	3.0	OPERATIONS TO BE EXECUTED		1
3.3.3	89	OPERATING EVENTS SCHEDULE	I	3.3	TIME TAGGED OPERATIONS, UPDATES		2
3.3.4	89	OPERATING EVENTS SCHEDULE	O	3.3	TIME TAGGED OPERATIONS		2
3.4.4	89	OPERATING EVENTS SCHEDULE	O	3.4	OPERATING EVENTS		2
5.1	89	OPERATING EVENTS SCHEDULE	O	5.0	EXECUTIONS		1
5.2	89	OPERATING EVENTS SCHEDULE	O	5.0	EXECUTIONS		1
5.2.1	89	OPERATING EVENTS SCHEDULE	O	5.2	EXECUTIONS		2
4.4.1.2	89	OPERATIONS EVENTS SCHEDULED	O	4.4.1	FIELD REQUIRED		3
3.0	90	SHORT TERM SCHEDULE	I	0.0	SCHEDULED OPERATIONS		0
5.0	90	SHORT TERM SCHEDULE	O	0.0	SCHEDULED OPERATIONS		0
3.2	90	SHORT TERM SCHEDULE	I	3.0	SCHEDULED SSDS FACILITY OPERATIO		1
3.3	90	SHORT TERM SCHEDULE	O	3.0	SCHEDULED OPERATIONS		1
3.2.5	90	SHORT TERM SCHEDULE	O	3.2	SCHEDULED OPERATIONS		2
3.2.6	90	SHORT TERM SCHEDULE	I	3.2	SCHEDULED OPERATIONS, UPDATES		2
3.3.1	90	SHORT TERM SCHEDULE	O	3.3	SCHEDULED OPERATIONS		2
3.3.2	90	SHORT TERM SCHEDULE	O	3.3	SCHEDULED OPERATIONS		2
3.3.4	90	SHORT TERM SCHEDULE	O	3.3	SCHEDULED PAYLOAD MODE CHANGES		2
4.2.1.2	90	SHORT TERM SCHEDULE	O	4.2.1	ELECTRICAL LOAD FORECASTS		3
4.2.2.1	90	SHORT TERM SCHEDULE	O	4.2.2	THERMAL LOAD FORECASTS		3
4.4.1	90	SHORT TERM SCHEDULE	O	4.4	TARGET COORDINATES		2
4.4.2	90	SHORT TERM SCHEDULE	O	4.4	ANOMALY HISTORIES		2
4.4.1.1	90	SHORT TERM SCHEDULE	O	4.4.1	TARGET COORDINATES		3
5.1	90	SHORT TERM SCHEDULE	O	5.0	SCHEDULE OPERATIONS		1
5.2	90	SHORT TERM SCHEDULE	O	5.0	SCHEDULED OPERATIONS		1
5.2.1	90	SHORT TERM SCHEDULE	O	5.2	SCHEDULED OPERATIONS		2
7.3.4	90	SHORT TERM SCHEDULE	O	7.3	PROCEDURES REQUIRED		2

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
7.3	91	TECHNICAL DOCUMENTS	O	7.0	CURRENT PROCEDURES		1
7.3	91	TECHNICAL DOCUMENTS	I	7.0	UPDATED PROCEDURES		1
0.0	91	TECHNICAL DOCUMENTS	O	7.3	CURRENT DOCUMENTS	0112 TMIS	2
0.0	91	TECHNICAL DOCUMENTS	I	7.3	NEW PROCEDURES	0112 TMIS	2
0.0	91	TECHNICAL DOCUMENTS	O	7.3	CURRENT DOCUMENTS	0003 LOGISTICS OPERATOR	2
7.3.1	91	TECHNICAL DOCUMENTS	O	7.3	CURRENT PROCEDURES		2
7.3.2	91	TECHNICAL DOCUMENTS	I	7.3	UPDATED CHECKLISTS, PROCEDURES		2
7.3.4	91	TECHNICAL DOCUMENTS	O	7.3	CURRENT PROCEDURES		2
7.4	103	INVENTORIES	I	7.0	MATERIAL LOCATION, STATUS		1
7.1.1	103	INVENTORIES	O	7.1	SPARES, CONSUMABLES INVENTORIES		2
7.1.1	108	INVENTORIES	I	7.1	USAGE HISTORY		2
7.1.1	108	MATERIAL USAGE	O	7.1	PLANNED USAGE		2
7.2	113	CREW TASK	O	7.0	CREW USAGE		1
4.3.1.5	113	CREW TASKS	O	4.3.1	CREW TASKS PENDINGS, COMPLETED		3
0.0	113	CREW TASKS	O	4.3.4	CREW TASKS PENDING	0102 OPERATOR	3
0.0	113	CREW TASKS	I	4.3.5	CREW TASKS PENDING	0102 OPERATOR	3
0.0	113	CREW TASKS	I	4.3.5	CREW TASK SCHEDULE	0102 OPERATOR	3
7.1	114	LOGISTICS PLAN	I	7.0	PLAN UPDATES		1
7.1	114	LOGISTICS PLAN	O	7.0	CURRENT PLAN		1
0.0	117	TASK STATUS LOG	I	3.0	NEW TASKS	0001 CUSTOMER/OPERATOR	1
0.0	117	TASK STATUS LOG	O	3.0	DISPOSITION	0001 CUSTOMER/OPERATOR	1
3.2	117	TASK STATUS LOG	O	3.0	PEN. TASKS		1
3.4	117	TASK STATUS LOG	I	3.0	TASK STATUS UPDATES		1
3.2.1	117	TASK STATUS LOG	O	3.2	PENDING TASKS, CREW TASK SELECTI		2
3.2.1	117	TASK STATUS LOG	I	3.2	NEW TASKS		2
3.2.6	117	TASK STATUS LOG	I	3.2	TASK STATUS UPDATE		2
3.3.3	117	TASK STATUS LOG	I	3.3	TASK STATUS UPDATE		2
3.4.1	117	TASK STATUS LOG	I	3.4	TASK STATUS UPDATE		2
3.4.2	117	TASK STATUS LOG	I	3.4	TASK STATUS UPDATE		2
4.3	117	TASK STATUS LOG	I	4.0	CREW TASK SELECTIONS		1
4.1.1.5	120	ENVIRONMENT	O	4.1.1	MAGNETIC FIELD DENSITY		3
4.1.3.3	120	ENVIRONMENT	O	4.1.3	DENSITY, MAGNETIC FIELD		3
4.4.1	120	ENVIRONMENT	O	4.4	MAGNETIC FIELD		2
4.4.2	120	ENVIRONMENT	I	4.4	DENSITY, MAGNETIC FIELD		2
4.4.1.2	120	ENVIRONMENT	O	4.4.1	MAGNETIC FIELD		3
4.1.2	121	NAVIGATION STATE,ATTITUDE	O	4.1	STATE,ATTITUDE		2
2.5.3.3	121	NAVIGATION STATE/ATTITUDE	O	2.5.3	OTV, STATION STATE, LOCATION		3
2.5.4.3	121	NAVIGATION STATE/ATTITUDE	O	2.5.4	OMV NAVIGATION STATE		3
3.4.1	121	NAVIGATION STATE/ATTITUDE	O	3.4	TIME		2
3.4.2	121	NAVIGATION STATE/ATTITUDE	O	3.4	TIME		2
4.1.1	121	NAVIGATION STATE/ATTITUDE	I	4.1	STATE, ATTITUDE		2
4.1.1	121	NAVIGATION STATE/ATTITUDE	O	4.1	ATTITUDE		2
4.1.3	121	NAVIGATION STATE/ATTITUDE	O	4.1	NAVIGATION STATE/ATTIUDE		2
4.1.4	121	NAVIGATION STATE/ATTITUDE	O	4.1	STATE,ATTITUDE		2
4.1.4	121	NAVIGATION STATE/ATTITUDE	I	4.1	COFLIER STATES		2
4.1.5	121	NAVIGATION STATE/ATTITUDE	O	4.1	COFLIER NAVIGATION STATE		2
4.1.6	121	NAVIGATION STATE/ATTITUDE	I	4.1	TIME		2
4.1.1.1	121	NAVIGATION STATE/ATTITUDE	I	4.1.1	SPACE STATION NAVIGATION STATE,		3
4.1.1.2	121	NAVIGATION STATE/ATTITUDE	O	4.1.1	COFLIER RELATIVE STATE, SPACE ST		3
4.1.1.2	121	NAVIGATION STATE/ATTITUDE	I	4.1.1	CONSTELLATION STATE, ORBIT		3
4.1.1.3	121	NAVIGATION STATE/ATTITUDE	O	4.1.1	SPACE STATION ATTITUDE, STATE, T		3
4.1.1.4	121	NAVIGATION STATE/ATTITUDE	I	4.1.1	SPACE STATION ATTITUDE		3
4.1.1.5	121	NAVIGATION STATE/ATTITUDE	O	4.1.1	SPACE STATION, CONSTELLATION STA		3

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
4.1.1.5	121	NAVIGATION STATE/ATTITUDE	I	4.1.1	NAVIGATION STATE UPDATE		3
4.1.2.4	121	NAVIGATION STATE/ATTITUDE	O	4.1.2	STATE CHANGE CONFIRMATION		3
4.1.2.6	121	NAVIGATION STATE/ATTITUDE	O	4.1.2	SPACE STATION ATTITUDE		3
4.1.3.1	121	NAVIGATION STATE/ATTITUDE	O	4.1.3	SPACE STATION STATE		3
4.1.3.3	121	NAVIGATION STATE/ATTITUDE	O	4.1.3	SPACE STATION STATE		3
4.1.4.1	121	NAVIGATION STATE/ATTITUDE	O	4.1.4	CONSTELLATION NAVIGATION STATES		3
4.1.4.1	121	NAVIGATION STATE/ATTITUDE	I	4.1.4	COFLIER RELATIVE STATES		3
4.1.4.2	121	NAVIGATION STATE/ATTITUDE	O	4.1.4	COFLYER RELATIVE STATES		3
4.1.5.1	121	NAVIGATION STATE/ATTITUDE	O	4.1.5	ATTITUDE		3
4.1.5.2	121	NAVIGATION STATE/ATTITUDE	O	4.1.5	ATTITUDE		3
0.0	121	NAVIGATION STATE/ATTITUDE	I	4.1.6	TIME	0167 TIME FREQUENCY SOURC	3
4.1.6.1	121	NAVIGATION STATE/ATTITUDE	I	4.1.6	TIME		3
4.2.1.5	121	NAVIGATION STATE/ATTITUDE	O	4.2.1	BETA ANGLE, POSITION, ATTITUDE		3
4.2.2.3	121	NAVIGATION STATE/ATTITUDE	O	4.2.2	BETA ANGLE, POSITION, ATTITUDE		3
4.4.1	121	NAVIGATION STATE/ATTITUDE	O	4.4	NAVIGATION STATE/ATTITUDE		2
4.4.1.1	121	NAVIGATION STATE/ATTITUDE	O	4.4.1	ATTITUDE		3
4.4.1.2	121	NAVIGATION STATE/ATTITUDE	O	4.4.1	POSITION		3
4.4.1.3	121	NAVIGATION STATE/ATTITUDE	O	4.4.1	NAVIGATION STATE, ATTITUDE		3
4.4.1.4	121	NAVIGATION STATE/ATTITUDE	O	4.4.1	ATTITUDE		3
1.4.4	123	ENGINEERING DATA ARCHIVE	O	1.4	ARCHIVED DATA		2
1.5.3	123	ENGINEERING DATA ARCHIVE	I	1.5	ARCHIVAL ENGINEERING DATA		2
1.5.5	123	ENGINEERING DATA ARCHIVE	I	1.5	ANALYZED CORE DATA		2
1.5.5	123	ENGINEERING DATA ARCHIVE	O	1.5	ANALYSIS DATA		2
1.5.6	123	ENGINEERING DATA ARCHIVE	O	1.5	RETRIEVAL		2
1.4.4	124	SHORT TERM CORE ARCHIVE	O	1.4	CORE OPERATING DATA		2
1.5.3	124	SHORT TERM CORE ARCHIVE	I	1.5	CORE OPERATING DATA		2
1.5.4	124	SHORT TERM CORE ARCHIVE	O	1.5	CORE OPERATING DATRA		2
1.1.3	125	DATA ACCOUNTING	I	1.1	REAL TIME DATA SENT		2
1.2.3	125	DATA ACCOUNTING	I	1.2	BULK DATA SENT		2
1.2.5	125	DATA ACCOUNTING	O	1.2	ALL DATA SENT, RECEIVED		2
1.3.2	125	DATA ACCOUNTING	I	1.2	DATA CAPTURED		2
1.3.1	125	DATA ACCOUNTING	I	1.3	DATA PROCESSED		2
1.3.2	125	DATA ACCOUNTING	I	1.3	DATA CAPTURED		2
1.3.3	125	DATA ACCOUNTING	I	1.3	DATA TRANSMITTED		2
1.3.4	125	DATA ACCOUNTING	I	1.3	DATA QUALITY ACCOUNTING		2
1.4.2	125	DATA ACCOUNTING	I	1.4	CUSTOMER DATA RECEIVED		2
1.4.3	125	DATA ACCOUNTING	O	1.4	RETRIEVAL		2
1.4.3	125	DATA ACCOUNTING	I	1.4	CUSTOMER DATA SENT		2
1.4.6	125	DATA ACCOUNTING	O	1.4	CUSTOMER DATA ACCOUNT		2
1.4.7	125	DATA ACCOUNTING	I	1.4	CUSTOMER DATA SENT		2
1.5.2	125	DATA ACCOUNTING	I	1.5	CORE DATA RECEIVED		2
1.5.3	125	DATA ACCOUNTING	I	1.5	CORE DATA SENT		2
1.5.6	125	DATA ACCOUNTING	O	1.5	CORE DATA ACCOUNT		2
1.5.2	126	CORE DATA BUFFER	I	1.5	BULK CORE DATA		2
1.5.3	126	CORE DATA BUFFER	O	1.5	BULK CORE DATA		2
0.0	130	GROUND FACILITIES STATUS	I	5.0	CONFIGURATION, STATUS	0129 GROUND DATA PROCESSI	1
5.2	130	GROUND FACILITIES STATUS	O	5.0	CONFIGURATION, STATUS		1
5.2.1	130	GROUND FACILITY STATUS	O	5.2	CONFIGURATION STATUS		2
5.2.2	130	GROUND FACILITY STATUS	O	5.2	CONFIGURATION STATUS		2
5.2.3	130	GROUND FACILITY STATUS	I	5.2	CONFIGURATION STATUS		2
5.2.4	130	GROUND FACILITY STATUS	I	5.2	CONFIGURATION STATUS, USAGE		2
6.8.1	135	DEVELOP FACILITIES STATUS	O	6.8	EQUIPMENT, FACILITIES AVAILABILI		2
6.8	135	DEVELOPMENT FACILITIES STATUS	O	6.0	TRAINING STATUS		1

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
2.5.3	137	OBJECT STATES	O	2.5	OBJECT STATES		2
2.5.4	137	OBJECT STATES	O	2.5	OBJECT STATES		2
2.5.3.3	137	OBJECT STATES	O	2.5.3	TARGET, CONSTELLATION STATE, LOC		3
2.5.4.3	137	OBJECT STATES	O	2.5.4	TARGET, CONSTELLATION LOCATION		3
4.1.1	137	OBJECT STATES	I	4.1	OBJECT NAVIGATION STATE		2
4.1.1	137	OBJECT STATES	O	4.1	OBJECT RELATIVE STATES		2
4.1.4	137	OBJECT STATES	O	4.1	OBJECT STATES		2
4.1.5	137	OBJECT STATES	I	4.1	OBJECT STATES UPDATES		2
4.1.5	137	OBJECT STATES	O	4.1	OBJECT STATES		2
4.1.1.2	137	OBJECT STATES	O	4.1.1	OBJECT RELATIVE STATES		3
4.1.1.2	137	OBJECT STATES	I	4.1.1	OBJECT NAVIGATION STATE UPDATES		3
4.1.2.3	137	OBJECT STATES	O	4.1.2	OBJECT NAVIGATION STATES		3
4.1.4.1	137	OBJECT STATES	I	4.1.4	OBJECT RELATIVE STATE		3
4.1.4.2	137	OBJECT STATES	O	4.1.4	OBJECT RELATIVE STATES		3
4.1.4.4	137	OBJECT STATES	O	4.1.4	OBJECT RELATIVE STATES		3
4.1.5.1	137	OBJECT STATES	O	4.1.5	OBJECT STATE		3
4.1.5.2	137	OBJECT STATES	I	4.1.5	OBJECT RELATIVE STATE UPDATE		3
4.1.5.3	137	OBJECT STATES	O	4.1.5	KNOWN OBJECT ORBITS		3
4.1.5.3	137	OBJECT STATES	I	4.1.5	TRACKLIST, OBJECT STATE, ORBIT U		3
4.4.3	137	OBJECT STATES	O	4.4	TRACK LIST, OBJECT STATE		2
4.2.5.6	137	OBJECT STATUS	O	4.2.5			3
1.1.1	139	REAL TIME DATA BUFFER	I	1.1	ACQUIRED REALTIME DATA		2
1.1.2	139	REAL TIME DATA BUFFER	O	1.1	REAL TIME DATA QUEUEING LIST		2
1.1.3	139	REAL TIME DATA BUFFER	O	1.1	REAL TIME DATA QUEUEING LIST		2
1.1.4	139	REAL TIME DATA BUFFER	O	1.1	TRANSMITABLE REAL TIME DATA		2
1.1.5	139	REAL TIME DATA BUFFER	I	1.1	FORMATTED REALTIME DATA		2
1.1.5	139	REALTIME DATA BUFFER	O	1.1	UNFORMATTED REALTIME DATA		2
0.0	141	PAYLOAD OPERATIONS DATA BASE	O	1.1	PAYLOAD OPERATING DATA	0002 ONBOARD CUSTOMER/OPE	2
1.1.1	141	PAYLOAD OPERATIONS DATA BASE	I	1.1	REALTIME OPERATING DATA		2
1.3.3	142	PREPROCESSED DATA BUFFER	O	1.3	PREPROCESSED DATA		2
1.3.4	142	PREPROCESSED DATA BUFFER	I	1.3	PREPROCESSED DATA WITH FLAGGED E		2
1.3.2	143	CAPTURED RAW DATA	I	1.3	RAW DATA		2
1.3.2	143	CAPTURED RAW DATA	O	1.3	RETRANSMITTED RAW DATA		2
4.2.5.7	144	TELEMETRY TABLE	O	4.2.5	ROUTING		3
2.1	149	OTV STATUS	I	2.0	OTV RENDEZVOUS TARGETING		1
2.5.3	149	OTV STATUS	I	2.5	OTV STATE		2
2.5.3	149	OTV STATUS	I	2.5	OTV RENDEZVOUS TARGETING		2
0.0	149	OTV STATUS	O	2.5.3	OTV,PAYLOAD STATUS	0102 OPERATOR	3
2.1	149	OTV STATUS	I	2.5.3	OTV RENDEZVOUS TARGETING		3
2.5.3.2	149	OTV STATUS	I	2.5.3	CHECKOUT DIAGNOSTICS		3
2.5.3.3	149	OTV STATUS	I	2.5.3	OTV STATE		3
2.5.3.3	149	OTV STATUS	O	2.5.3	OTV RENDEZVOUS TARGETING		3
2.5.3.5	149	OTV STATUS	I	2.5.3	OTV, PAYLOAD STATUS		3
2.1	150	PROCEDURES	I	2.0	PAYLOAD PROCEDURES		1
2.3	150	PROCEDURES	I	2.0	CORE PROCEDURES		1
2.3.2	150	PROCEDURES	I	2.3	CORE PROCEDURES		2
0.0	150	PROCEDURES	O	2.5	PAYLOAD PROCEDURES	0001 CUSTOMER/OPERATOR	2
0.0	150	PROCEDURES	O	2.5.3	OTV MAINTENANCE PROCEDUREW	0159 EVA CREW	3
0.0	150	PROCEDURES	O	2.5.4	OMV MAINTENANCE PROCEDURES	0159 EVA CREW	3
4.3.2	150	PROCEDURES	O	4.3	ABNORMAL AND EMERGENCY PROCEDURE		2
4.3.5	150	PROCEDURES	O	4.3	PROCEDURES		2
4.3.2.2	150	PROCEDURES	O	4.3.2	ABNORMAL AND EMERGENCY PROCEDURE		3
0.0	150	PROCEDURES	O	4.3.4		0158 CONTAMINATION SENSOR	3

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
4.3.4.1	150	PROCEDURES	O	4.3.4	DECONTAMINATION PROCEDURES		3
4.3.5.1	150	PROCEDURES	O	4.3.5	PROCEDURES		3
4.3.5.2	150	PROCEDURES	O	4.3.5	PROCEDURES		3
7.3.4	150	PROCEDURES	I	7.3	MAIN., OPS., EMERGENCY PROCEDURE		2
2.5.5	151	MAINTENANCE LOG	I	2.5	PAYLOAD MAINTENANCE ACTIONS		2
2.5.3.2	151	MAINTENANCE LOG	I	2.5.3	OTV MAINTENANCE ACTIONS		3
2.5.4.2	151	MAINTENANCE LOG	I	2.5.4	OMV MAINTENANCE ACTIONS		3
4.3.4.2	151	MAINTENANCE LOG	I	4.3.4	EMU MAINTENANCE ACTIVITIES		3
4.3.4.3	151	MAINTENANCE LOG	I	4.3.4	MMU MAINTENANCE ACTIONS		3
4.3.5.1	151	MAINTENANCE LOG	I	4.3.5	SPACE STATION MAINTENANCE ARCHIV		3
2.5.4	153	OMV STATUS	O	2.5	OMV RENDEZVOUS TARGETING		2
2.5.4	153	OMV STATUS	I	2.5	OMV STATE		2
0.0	153	OMV STATUS	O	2.5.4	OMV, PAYLOAD STATUS	0102 OPERATOR	3
2.1	153	OMV STATUS	I	2.5.4	OMV RENDEZVOUS TARGETING		3
2.5.4.2	153	OMV STATUS	I	2.5.4	CHECKOUT DIAGNOSTICS		3
2.5.4.3	153	OMV STATUS	O	2.5.4	OMV RENDEZVOUS TARGETING		3
2.5.4.3	153	OMV STATUS	I	2.5.4	OMV STATE		3
2.5.4.6	153	OMV STATUS	I	2.5.4	OMV, PAYLOAD STATUS		3
3.3.2	171	MODE STATUS	O	3.3	MODE CHANGES		2
3.3.4	171	MODE STATUS	O	3.3	MODE CHANGES		2
3.4.3	171	MODE STATUS	I	3.4	MODE CHANGE		2
4.1.4	171	MODE STATUS	O	4.1	CORE SYSTEM MODE		2
4.1.2.2	171	MODE STATUS	I	4.1.2	MODE CHANGE		3
4.1.2.2	171	MODE STATUS	O	4.1.2	MODE CHANGE CONFIRMATION		3
4.2.1.4	171	MODE STATUS	O	4.2.1	MODE CHANGE		3
4.3.2.2	171	MODE STATUS	O	4.3.2	CORE MODE		3
4.3.4.4	171	MODE STATUS	I	4.3.4	MODE CHANGE COMMAND		3
4.1.1.5	174	NAVIGATION STATE FORECAST	I	4.1.1	SPACE STATION, COFLIER NAVIGATIO		3
4.1.2.3	174	NAVIGATION STATE FORECAST	O	4.1.2	COFLYER STATE FORECAST		3
4.1.1.3	175	STAR/OBJECT CATALOG	O	4.1.1	STAR,OBJECT REFERENCE LOCATION		3
4.1.1.4	176	EPHEMERIDES	O	4.1.1	STAR REFERENCE COORDINATES		3
4.2.1.5	176	EPHEMERIDES	O	4.2.1	SUN REFERENCE COORDINATES		3
4.2.2.3	176	EPHEMERIDES	O	4.2.2	SUN REFERENCE COORDINATES		3
4.4.1.3	176	EPHEMERIDES	O	4.4.1	REFERENCES COORDINATES		3
4.4.1.4	176	EPHEMERIDES	O	4.4.1	REFERENCE COORDINATES		3
4.1.1.3	176	EPHERMERIDES	I	4.1.1	STAR, OBJECT EPHEMERIDES		3
4.2.1.1	193	POWER SYSTEM STATUS	I	4.2.1	ARRAY FAULTS, PERFORMANCE		3
4.2.1.2	193	POWER SYSTEM STATUS	I	4.2.1	DISTRIBUTION, LOAD STATUS		3
4.2.1.2	193	POWER SYSTEM STATUS	O	4.2.1	POWER STATUS		3
4.2.1.3	193	POWER SYSTEM STATUS	I	4.2.1	SOURCE CONFIGURATION STORAGE STA		3
4.2.1.3	193	POWER SYSTEM STATUS	O	4.2.1	POWER DEMAND		3
4.2.1.4	193	POWER SYSTEM STATUS	I	4.2.1	ARRAY MODE		3
4.2.1.5	193	POWER SYSTEM STATUS	I	4.2.1	ENERGY FORECAST		3
4.2.1.5	193	POWER SYSTEM STATUS	O	4.2.1	STORAGE, ARRAY PERFORMANCE, STAT		3
0.0	199	ECLSS STATUS	O	4.2.4	OXYGEN, NITROGEN LEVELS	0216 AIR MAKEUP	3
4.2.4.1	199	ECLSS STATUS	I	4.2.4	MAINTENANCE NEEDS ATMOSPHERIC TE		0
4.2.4.3	199	ECLSS STATUS	I	4.2.4	MAINTENANCE NEEDS, SYSTEM STATUS		3
4.2.4.4	199	ECLSS STATUS	I	4.2.4	MAINTENANCE NEEDS, SYSTEM STATUS		3
4.2.2.1	200	THERMAL SYSTEM STATUS	O	4.2.2	THERMAL SYSTEM LOAD CAPACITY FOR		3
4.2.2.1	200	THERMAL SYSTEM STATUS	I	4.2.2	THERMAL SYSTEM STATUS AND PERFOR		3
4.2.2.3	200	THERMAL SYSTEM STATUS	I	4.2.2	THERMAL LOAD CAPACITY FORECAST		3
4.2.2.3	200	THERMAL SYSTEM STATUS	O	4.2.2	LOOP STATUS AND PERFORMANCE		3
4.1	203	MASS PROPERTIES CONFIGURATION	O	4.0	MASS, AREA PROPERTIES		1

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
4.5	203	MASS PROPERTIES CONFIGURATION	I	4.0	PROPERTY UPDATES		1
4.1.1	203	MASS PROPERTIES CONFIGURATION	O	4.1	MASS, AREA PROPERTIES		2
4.1.3	203	MASS PROPERTIES CONFIGURATION	O	4.1	AREA PROPERTIES		2
4.1.1.5	203	MASS PROPERTIES CONFIGURATION	O	4.1.1	MASS,AREA,THRUSTER PROPERTIES		3
4.1.3.1	203	MASS PROPERTIES CONFIGURATION	O	4.1.3	MASS PROPERTIES		3
4.1.3.3	203	MASS PROPERTIES CONFIGURATION	O	4.1.3	MASS PROPERTIES		3
4.2.1.5	203	MASS PROPERTIES CONFIGURATION	O	4.2.1	AREA PROPERTIES		3
4.2.2.3	203	MASS PROPERTIES CONFIGURATION	O	4.2.2	RADIATOR CONFIGURATION		3
4.5.3	203	MASS PROPERTIES CONFIGURATION	O	4.5	MASS PROPERTIES AREA		2
4.5.3	203	MASS PROPERTIES CONFIGURATION	I	4.5	MASS, MOMENTS OF INERTIA, AREAS		2
7.5	203	MASS PROPERTIES CONFIGURATION	I	7.0	MASS, AREA PROPERTIES		1
4.3	204	CREW STATUS	I	4.0	MEDICAL, TRAINING RECORDS		1
4.3.1	204	CREW STATUS	I	4.3	MEDICAL RECORD		3
0.0	204	CREW STATUS	O	4.3.1	NUTRIENT INTAKE	0110 CREW	3
0.0	204	CREW STATUS	O	4.3.1	EXERCISE PLAN	0110 CREW	3
4.3.1.1	204	CREW STATUS	O	4.3.1	NORMAL PHYSIOLOGICAL READINGS		3
4.3.1.1	204	CREW STATUS	I	4.3.1	PHYSIOLOGICAL RECORD UPDATE		3
4.3.1.2	204	CREW STATUS	O	4.3.1	MEDICAL RECORDS		3
4.3.1.2	204	CREW STATUS	I	4.3.1	MEDICAL RECORD UPDATE		3
4.3.1.4	204	CREW STATUS	O	4.3.1	NUTRIENT INTAKE AND ENERGY EXPEN		3
4.3.1.4	204	CREW STATUS	I	4.3.1	NUTRIENT BALANCE		3
4.3.1.5	204	CREW STATUS	I	4.3.1	ENERGY EXPENDITURE, EXERCIZE PLA		3
4.3.1.5	204	CREW STATUS	O	4.3.1	NUTRIENT BALANCE		3
4.3.1.6	204	CREW STATUS	I	4.3.1	REDUCED/ANALYZED PHYSIOLOGICAL D		3
4.3.1.6	204	CREW STATUS	O	4.3.1	PHYSIOLOGICAL RECORD		3
4.3.3.2	204	CREW STATUS	I	4.3.3	CREW PRIVATE MAIL		3
4.3.3.2	204	CREW STATUS	O	4.3.3	CREW PRIVATE MAIL		3
4.5.1	206	FLIGHT FACILITIES	O	4.5	FLIGHT FACILITIES STATUS		2
4.5.4.1	206	FLIGHT FACILITIES	O	4.5.4	FLIGHT FACILITIES STATUS		3
4.5.4.2	206	FLIGHT FACILITIES	O	4.5.4	FLIGHT FACILITIES STATUS		3
4.5.4.3	206	FLIGHT FACILITIES	O	4.5.4	FLIGHT FACILITIES STATUS		3
4.5.4	206	FLIGHT FACILITIES STATUS	O	4.5	FLIGHT FACILITIES STATUS		2
0.0	206	FLIGHT FACILITIES STATUS	I	5.0	CONFIGURATION STATUS	0127 FLIGHT DATA PROCESSI	1
5.1	206	FLIGHT FACILITIES STATUS	O	5.0	CONFIGURATION, STATUS		1
4.3.3.1	215	RECREATION	O	4.3.3	RECREATION MATERIAL		3
0.0	228	LONG TERM ARCHIVE	I	1.4	ARCHIVAL DATA	0106 CUSTOMER	2
0.0	228	LONG TERM ARCHIVE	O	1.4	ARCHIVAL DATA RETRIEVAL	0106 CUSTOMER	2
0.0	228	LONG TERM ARCHIVE	I	1.4	PROCESSED DATA	SSIS: STANDARD CUSTOMER D	2
1.4.2	230	PAYLOAD DATA BUFFER	I	1.4	BULK CUSTOMER DATA		2
1.4.2	230	PAYLOAD DATA BUFFER	O	1.4	BULK CUSTOMER DATA		2
2.5.2	231	CUSTOMER COMMANDS	O	2.5	STORED COMMAND SEQUENCES		2
3.3.2	231	CUSTOMER COMMANDS	O	3.3	STORED COMMAND SEQUENCE		2
4.2.5.1	240	COMMUNICATION EQUIPMENT STATUS	I	4.2.5	CONTROL PARAMETER STATUS		3
4.2.5.1	240	COMMUNICATION EQUIPMENT STATUS	O	4.2.5	EQUIPMENT AVAILABILITY		3
4.2.5.4	240	COMMUNICATION EQUIPMENT STATUS	I	4.2.5	AVAILABILITY		3
4.2.5.7	240	COMMUNICATION EQUIPMENT STATUS	O	4.2.5	EQUIPMENT AVAILABILITY		3
4.2.5.3	241	COMMUNICATION MONITOR	I	4.2.5	COMMUNICATION STATUS		3
4.2.5.4	241	COMMUNICATION MONITOR	O	4.2.5	COMMUNICATION STATUS		3
4.2.5.7	241	COMMUNICATION MONITOR	O	4.2.5	COMMUNICATION STATUS		3
4.2.5.4	243	RECONFIGURATION PROCEDURES	O	4.2.5			3
4.2.5.1	245	NETWORK PLAN LINK PRIORITIES	O	4.2.5			3
6.9.1	247	CMFILE	O	6.9			2
6.9.1	247	CMFILE	I	6.9			2

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
6.9.6	247	CMFILE	O	6.9			2
6.9.7	247	CMFILE	I	6.9	TMIS ORGINATED CONTROL INSTRUMEN		2
6.9.7	247	CMFILE	O	6.9	TMIS ORGINATED CONTROL INSTRUMEN		2
6.9.8	247	CMFILE	O	6.9	RELEASE DEF. S/W SCHEDULES, STAT		2
6.9.6	249	SOFTWARE DOCUMENT FILE	I	6.9	UPDATES		2
6.9.6	249	SOFTWARE DOCUMENT FILE	O	6.9	CURRENT DOCUMENTS		2
6.9.7	249	SOFTWARE DOCUMENT FILE	I	6.9	REQUIREMENTS, TEST DOCS., USER G		2
6.9.7	249	SOFTWARE DOCUMENT FILE	O	6.9	REQMTS., TEST DOCS.,USER GUIDES		2
4.3.4	252	EVA STATUS	I	4.3	MODE CHANGE COMMAND, EMU, MMU ST		2
0.0	252	EVA STATUS	O	4.3.4	AIRLOCK STATUS	0159 EVA CREW	3
0.0	252	EVA STATUS	I	4.3.4	AIR COMPOSITION, PRESSURE TEMPER	0162 AIRLOCK ATMOSPHERE C	3
0.0	252	EVA STATUS	O	4.3.4	AIRLOCK STATUS	0102 OPERATOR	3
4.3.4.1	252	EVA STATUS	I	4.3.4	CONTAMINATION LEVELS		3
4.3.4.2	252	EVA STATUS	I	4.3.4	EMU STATUS		3
4.3.4.3	252	EVA STATUS	I	4.3.4	MMU STATUS		3
4.3.4.5	252	EVA STATUS	I	4.3.4	EMU/MMU STATUS		3
4.1.1.4	253	GN & C STATUS	I	4.1.1	ATTITUDE, SENSOR STATUS		3
4.1.3.1	253	GN & C STATUS	O	4.1.3	RATE EFFECTOR STATUS		3
4.1.3.2	253	GN & C STATUS	I	4.1.3	CMG,RCS,TORQUER,STATUS		3
4.1.5.1	254	C & T STATUS	I	4.1.5	LONG RANGE TRACKER STATUS		3
4.1.5.2	254	C & T STATUS	I	4.1.5	PROXIMITY TRACKER STATUS		3
4.1.2.5	256	TETHER STATUS	I	4.1.2	TETHER SYSTEM STATUS		3
4.3.5.4	257	PROGRAMMING LANGUAGE	O	4.3.5	LANGUAGES		3
0.0	258	GROUND FACILITY INVENTORIES	O	7.4	CURRENT INVENTORIES	0112 TMIS	2
7.4.3	258	GROUND FACILITY INVENTORIES	I	7.4	GROUND FACILITY INVENTORY LOCATI		2
0.0	259	CUSTOMER INVENTORIES	O	7.4	CURRENT INVENTORIES	0112 TMIS	2
7.4.1	259	CUSTOMER INVENTORIES	I	7.4	HARDWARE, MATERIAL LOCATION, STA		2
0.0	260	STATION INVENTORIES	O	7.4	CURRENT INVENTORIES	0112 TMIS	2
7.4.2	260	STATION INVENTORIES	I	7.4	STATION INVENTORY LOCATION, STAT		2
6.8	270	TRAINING HISTORY	I	6.0	UPDATE TRAINING HISTORY		1
0.0	270	TRAINING HISTORY	O	6.8	OPERATOR TRAINING HISTORY	0001 CUSTOMER/OPERATOR	2
6.8	270	TRAINING HISTORY	O	6.8	OPERATOR TRAINING HISTORY		1
6.8.1	270	TRAINING HISTORY	O	6.8	OPERATOR TRAINING HISTORY		2
6.8.7	270	TRAINING HISTORY	I	6.8	UPDATE TRAINING HISTORY		2
5.2.3	271	CONFIGURATION CODE	O	5.2			2
4.3.5.3	273	GENERAL PURPOSE SOFTWARE	O	4.3.5	SOFTWARE SUPPORT		3
4.4.1	274	MODE FORECAST	I	4.4	VENTING FORECAST		2
4.5.4	275	CORE SYSTEM HISTORY	I	4.5	CORE SYSTEM HISTORY		2
4.5.4	275	CORE SYSTEM HISTORY	O	4.5	TRENDS, HISTORY UPDATE		2
4.5.4.3	275	CORE SYSTEM HISTORY	O	4.5.4	CORE SYSTEM HISTORY		3
4.5.4.3	275	CORE SYSTEM HISTORY	I	4.5.4	TRENDS, HISTORY UPDATE		3
6.8.7	276	TRAINING HISTORY	I	6.8	OBJECTIVES MET		2
6.8.1	276	TRAINING PLAN	O	6.8	TRAINING PLAN STATUS		2
6.8.1	276	TRAINING PLAN	I	6.8	TRAINING PLAN UPDATES		2
3.1	278	MODE COMPATIBILITY MATRIX	I	3.0	RESOURCES, CONSTRAINTS, RESTRICT		1
3.3	278	MODE COMPATIBILITY MATRIX	O	3.0	RESOURCES, CONSTRAINTS, RESTRICT		1
3.4	278	MODE COMPATIBILITY MATRIX	O	3.0	RESURCES, CONSTRAINTS, RESTRICTI		1
3.1.3	278	MODE COMPATIBILITY MATRIX	I	3.1	OPERATING MODE RESOURCES, CONSTR		2
3.2.3	278	MODE COMPATIBILITY MATRIX	O	3.2	RESOURCES, CONSTRAINTS, RESTRICT		2
3.3.2	278	MODE COMPATIBILITY MATRIX	O	3.3	RESOURCES, CONSTRAINTS, RESTRICT		2
3.3.4	278	MODE COMPATIBILITY MATRIX	O	3.3	RESOURCES, CONSTRAINTS, RESTRICT		2
3.4.4	278	MODE COMPATIBILITY MATRIX	O	3.4	RESOURCES, CONSTRAINTS, RESTRICT		2

E.2P Data Store Input/Output (Platform)

The data flows to and from the data stores contents the functions utilizing the data store, and the implications of various physical locations for the data store.

This section shows the data store input and output data flows. The first column shows the number of the function communicating with the data store. Where a 0.0 appears, the communicating element is an external agency. The data store number and name follow. Next is an indicator of whether the data flow is an input to the data store (I) or an output from the data store (O). The data flow diagram number and data flow name follow. When an external agency is involved, its number and name come next. The final entry shows the level of the data flow diagram in which the data flow appears.

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
1.2	11	CORE STATUS	O	1.0	BULK CORE DATA		1
1.2.5	11	CORE STATUS	O	1.2	CORE DATA		2
2.3	11	CORE STATUS	O	2.0	SYSTEM MODE		1
2.4	11	CORE STATUS	O	2.0	CORE, ANCILLARY DATA		1
2.5	11	CORE STATUS	O	2.0	CORE DATA		1
2.3.2	11	CORE STATUS	O	2.3	SYSTEM MODE		2
2.5.1	11	CORE STATUS	O	2.5	CORE DATA		2
2.5.2	11	CORE STATUS	O	2.5	CORE DATA		2
3.2	11	CORE STATUS	O	3.0	RESOURCES AVAILABLE FORECAST		1
3.3	11	CORE STATUS	O	3.0	SYSTEM STATUS		1
3.2.4	11	CORE STATUS	O	3.2	RESOURCES FORECASTS		2
3.2.5	11	CORE STATUS	O	3.2	RESOURCES AVAILABLE		2
3.3.2	11	CORE STATUS	O	3.3	CORE SYSTEMS STATUS		2
3.4.4	11	CORE STATUS	O	3.4	CORE SYSTEM MODE, STATUS		2
4.1	11	CORE STATUS	I	4.0	GN & C STATUS		1
4.2	11	CORE STATUS	I	4.0	NON-GN & C STATUS		1
4.5	11	CORE STATUS	O	4.0	CORE DATA		1
4.1.3.4	11	CORE STATUS	I	4.1.3	GIMBAL POSITION		3
4.1.6.1	11	CORE STATUS	I	4.1.6	STATUS		3
4.1.6.3	11	CORE STATUS	I	4.1.6	STATUS		3
4.1.6.4	11	CORE STATUS	I	4.1.6	STATUS		3
4.2.1	11	CORE STATUS	I	4.2	POWER SYSTEM STATUS		2
4.2.1	11	CORE STATUS	O	4.2	SYSTEM MODE CHANGE		2
4.2.2	11	CORE STATUS	I	4.2	THERMAL SYSTEM STATUS		2
4.2.2	11	CORE STATUS	O	4.2	SYSTEM MODE CHANGE		2
4.2.5	11	CORE STATUS	O	4.2	SYSTEM MODE CHANGE		2
4.2.5	11	CORE STATUS	I	4.2	C & T STATUS		2
4.3.2.1	11	CORE STATUS	I	4.3.2	CAUTION AND WARNING EVENTS		3
4.3.2.3	11	CORE STATUS	O	4.3.2	CORE STATUS		3
4.4.2	11	CORE STATUS	I	4.4	DELETED EVENTS AND ABNORMAL COND		2
4.4.1.4	11	CORE STATUS	I	4.4.1	MODULE ALIGNMENT		3
4.5.1	11	CORE STATUS	O	4.5	MODE,CORE SYSTEM STATUS		2
4.5.3	11	CORE STATUS	O	4.5	GIMBAL POSITION AND EQUIPMENT LO		2
4.5.4	11	CORE STATUS	I	4.5	SYSTEM FAULTS AND MAINTENANCE NE		2
4.5.4	11	CORE STATUS	O	4.5	MODE, CORE SYSTEM STATUS		2
4.5.5	11	CORE STATUS	I	4.5	SYSTEM FAULTS AND MAINTENANCE NE		2
4.5.4.1	11	CORE STATUS	I	4.5.4	FAULTS, MAINTENANCE NEEDS		3
4.5.4.1	11	CORE STATUS	O	4.5.4	CORE SYSTEM STATUS		3
4.5.4.2	11	CORE STATUS	O	4.5.4	CORE SYSTEM STATUS		3
4.5.4.3	11	CORE STATUS	O	4.5.4	CORE SYSTEM STATUS		3
1.2.5	16	PAYLOAD STATUS	O	1.2	PAYLOAD STATUS, MODE		2
2.5	16	PAYLOAD STATUS	O	2.0	PAYLOAD STATUS		1
2.5.1	16	PAYLOAD STATUS	O	2.5	PAYLOAD STATUS		2
2.5.1	16	PAYLOAD STATUS	I	2.5	PROCESSED PAYLOAD DATA		2
2.5.2	16	PAYLOAD STATUS	O	2.5	PAYLOAD STATUS		2
3.3	16	PAYLOAD STATUS	O	3.0	SYSTEMS STATUS		1
3.2.1	16	PAYLOAD STATUS	O	3.2	PAYLOAD STATUS		2
3.3.2	16	PAYLOAD STATUS	O	3.3	PAYLOAD SYSTEMS STATUS		2
3.3.4	16	PAYLOAD STATUS	O	3.3	PAYLOAD MODE CHANGES		2
0.0	16	PAYLOAD STATUS	I	3.4	PAYLOAD MODE	0023 PLATFORM PAYLOADS	2
3.4.4	16	PAYLOAD STATUS	O	3.4	PAYLOAD MODE, STATUS		2
4.5	16	PAYLOAD STATUS	O	4.0	PAYLOAD STATUS		1
4.1.4	16	PAYLOAD STATUS	O	4.1	PAYLOAD CO-FLYER MODE		2

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
4.3.2.2	16	PAYLOAD STATUS	O	4.3.2	PAYLOAD MODE		3
4.3.2.3	16	PAYLOAD STATUS	O	4.3.2	PAYLOAD STATUS		3
4.5.2	16	PAYLOAD STATUS	O	4.5	PAYLOAD STATUS		2
4.5.3	16	PAYLOAD STATUS	O	4.5	PAYLOAD LOCATION		2
4.5.5	16	PAYLOAD STATUS	I	4.5	PAYLOAD FAULT		2
0.0	17	MASTER PLAN	I	3.0	MASTER PLAN UPDATES	0112 TMIS	1
3.1	17	MASTER PLAN	O	3.0	PROGRAM SCHEDULE		1
0.0	17	MASTER PLAN	I	3.1	MASTER PLAN UPDATES	0112 TMIS	2
3.1.4	17	MASTER PLAN	O	3.1	PROGRAM SCHEDULE		2
3.1.4	17	MASTER PLAN	I	3.1	SCHEDULE UPDATES		2
3.2.1	17	MASTER PLAN	O	3.2	PROGRAM SCHEDULE		2
5.1	17	MASTER PLAN	O	5.0	PROGRAM SCHEDULE		1
5.2	17	MASTER PLAN	O	5.0	PROGRAM SCHEDULES		1
3.2.4	18	FACILITIES STATUS	O	3.2	CONFLICTS		2
4.5	18	FACILITIES STATUS	O	4.0	FACILITIES STATUS		1
1.1	21	PRIORITIES	O	1.0	DATA RETURN PRIORITY		1
1.2	21	PRIORITIES	O	1.0	DATA RETURN PRIORITY		1
1.1.2	21	PRIORITIES	O	1.1	DATA RETURN PRIORITY		2
1.2.2	21	PRIORITIES	O	1.2	DATA RETURN PRIORITY		2
3.2.5	21	PRIORITIES	O	3.2	OPERATING PRIORITIES		2
3.4.4	21	PRIORITIES	O	3.4	OPERATION PRIORITY		2
3.2	21	PRIORITITES	O	3.0	OPERATING PRIORITIES		1
0.0	25	DELAYED DATA	I	1.0	DELAYABLE PAYLOAD DATA	0023 PLATFORM PAYLOADS	1
1.2	25	DELAYED DATA	O	1.0	BULK PAYLOAD DATA		1
1.1.4	25	DELAYED DATA	I	1.1	EXCESS, LOW PRIORITY REAL TIME D		2
1.2.1	25	DELAYED DATA	I	1.2	BULK DATA		2
1.2.2	25	DELAYED DATA	O	1.2	CORE, PAYLOAD BULK DATA		2
1.2.3	25	DELAYED DATA	O	1.2	BULK DATA TO BE TRANSMITTED		2
1.2.4	25	DELAYED DATA	O	1.2	TRANSMISSIBLE BULK DATA		2
1.2.5	25	DELAYED DATA	I	1.2	FORMATTED BULK CORE, PAYLOAD DAT		2
1.2.5	25	DELAYED DATA	O	1.2	UNFORMATTED PAYLOAD DATA		2
0.0	31	COMMAND LOG	O	2.0	DISPOSITION	0032 CORE OPERATOR	1
0.0	31	COMMAND LOG	O	2.0	DISPOSITION, STATUS	0106 CUSTOMER	1
2.1	31	COMMAND LOG	I	2.0	PAYLOAD COMMANDS ENTERED		1
2.2	31	COMMAND LOG	I	2.0	PAYLOAD COMMAND DISPOSITION		1
2.3	31	COMMAND LOG	I	2.0	CORE COMMANDS ENTERED		1
2.3.2	31	COMMAND LOG	I	2.3	CORE COMMANDS ENTERED		2
3.4	31	COMMAND LOG	I	3.0	COMMANDS EXECUTED		1
3.2.5	31	COMMAND LOG	I	3.2	UNSCHEDULED COMMAND RESOLUTION		2
3.2.6	31	COMMAND LOG	I	3.2	UNSCHEDULED COMMAND RESOLUTION		0
3.3.2	31	COMMAND LOG	I	3.3	COMMAND DISPOSITION		2
3.3.3	31	COMMAND LOG	I	3.3	COMMAND SCHEDULED		2
3.4.1	31	COMMAND LOG	I	3.4	COMMANDS EXECUTED		2
3.4.2	31	COMMAND LOG	I	3.4	COMMANDS EXECUTED		2
2.1	34	AUTHENTICATION	O	2.0	AUTHORIZED CUSTOMERS, ADDRESSES		1
2.3	34	AUTHENTICATION	O	2.0	AUTHORIZED OPERATORS, ADDRESSES		1
2.3.1	34	AUTHENTICATION	O	2.3	AUTHORIZED OPERATORS, ADDRESSES		2
2.2	37	COMMAND DICTIONARY	O	2.0	COMMAND CLASSIFICATION		1
3.1.3	37	COMMAND DICTIONARY	O	3.1	RESOURCES INTERFERENCES SUSCEPTI		2
3.3.2	37	COMMAND DICTIONARY	O	3.3	EXECUTION CONDITIONS		2
3.3.4	37	COMMAND DICTIONARY	O	3.3	EXECUTION CONDITIONS		0
4.5.4	67	SIMULATION MODELS	O	4.5	SYSTEM SIMULATION MODELS		2
4.5.4.2	67	SIMULATION MODELS	O	4.5.4	SYSTEM SIMULATION MODELS		3

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
3.1	84	RECURRING OPERATIONS	I	3.0	ADDITIONS,UPDATES		1
3.1	84	RECURRING OPERATIONS	O	3.0	OPERATION PROFILES		1
3.2	84	RECURRING OPERATIONS	O	3.0	OPERATIONS MASTERS		1
3.1.1	84	RECURRING OPERATIONS	I	3.1	PAYLOAD OPERATIONS PROFILES, UPD		2
3.1.2	84	RECURRING OPERATIONS	I	3.1	OPERATION PROFILES, UPDATES		2
3.1.3	84	RECURRING OPERATIONS	I	3.1	POTENTIAL CONFLICT POINTS		2
3.1.3	84	RECURRING OPERATIONS	O	3.1	OPERATIONS PROFILES		2
3.1.4	84	RECURRING OPERATIONS	I	3.1	MAJOR EVENT OPERATION PROFILES		2
3.2.1	84	RECURRING OPERATIONS	O	3.2	OPERATION MASTERS		2
3.2.2	84	RECURRING OPERATIONS	I	3.2	NEW/REVISED OPERATION MASTERS		2
3.2.3	84	RECURRING OPERATIONS	O	3.2	INTERFERENCES		2
3.2.4	84	RECURRING OPERATIONS	O	3.2	RESOURCES PROFILES		2
3.2	86	NORMAL DAY OPERATIONS	O	3.0	PRIOR SCHEDULES		1
3.2.1	86	NORMAL DAY OPERATIONS	O	3.2	PRIOR NORMAL DAY SCHEDULES		2
3.2.6	86	NORMAL DAY OPERATIONS	I	3.2	NEW,REVISED NORMAL DAY OPERATION		2
3.2	87	MAJOR EVENT OPERATIONS	O	3.0	PRIOR SCHEDULES		1
3.2.1	87	MAJOR EVENT OPERATIONS	O	3.2	PRIOR MAJOR EVENT DAY SCHEDULES		2
3.2.6	87	MAJORS EVENT OPERATIONS	I	3.2	NEW,REVISED MAJOR EVENT OPERATIO		2
3.3	89	OPERATING EVENTS SCHEDULE	I	3.0	TIME TAGGED OPERATIONS		1
3.4	89	OPERATING EVENTS SCHEDULE	O	3.0	OPERATIONS TO BE EXECUTED		1
3.3.3	89	OPERATING EVENTS SCHEDULE	I	3.3	TIME TAGGED OPERATIONS, UPDATES		2
3.3.4	89	OPERATING EVENTS SCHEDULE	O	3.3	TIME TAGGED OPERATIONS		2
3.4.4	89	OPERATING EVENTS SCHEDULE	O	3.4	OPERATING EVENTS		2
5.1	89	OPERATING EVENTS SCHEDULE	O	5.0	EXECUTIONS		1
5.2	89	OPERATING EVENTS SCHEDULE	O	5.0	EXECUTIONS		1
4.4.1.2	89	OPERATIONS EVENTS SCHEDULED	O	4.4.1	FIELD REQUIRED		3
3.2	90	SHORT TERM SCHEDULE	I	3.0	SCHEDULED SSDS FACILITY OPERATIO		1
3.3	90	SHORT TERM SCHEDULE	O	3.0	SCHEDULED OPERATIONS		1
3.2.5	90	SHORT TERM SCHEDULE	O	3.2	SCHEDULED OPERATIONS		2
3.2.6	90	SHORT TERM SCHEDULE	I	3.2	SCHEDULED OPERATIONS, UPDATES		2
3.3.1	90	SHORT TERM SCHEDULE	O	3.3	SCHEDULED OPERATIONS		2
3.3.2	90	SHORT TERM SCHEDULE	O	3.3	SCHEDULED OPERATIONS		2
3.3.4	90	SHORT TERM SCHEDULE	O	3.3	SCHEDULED PAYLOAD MODE CHANGES		2
4.2.1.2	90	SHORT TERM SCHEDULE	O	4.2.1	ELECTRICAL LOAD FORECASTS		3
4.2.2.1	90	SHORT TERM SCHEDULE	O	4.2.2	THERMAL LOAD FORECASTS		3
4.4.1	90	SHORT TERM SCHEDULE	O	4.4	TARGET COORDINATES		2
4.4.2	90	SHORT TERM SCHEDULE	O	4.4	ANOMALY HISTORIES		2
4.4.1.1	90	SHORT TERM SCHEDULE	O	4.4.1	TARGET COORDINATES		3
5.1	90	SHORT TERM SCHEDULE	O	5.0	SCHEDULE OPERATIONS		1
5.2	90	SHORT TERM SCHEDULE	O	5.0	SCHEDULED OPERATIONS		1
0.0	117	TASK STATUS LOG	I	3.0	NEW TASKS	0001 CUSTOMER/OPERATOR	1
0.0	117	TASK STATUS LOG	O	3.0	DISPOSITION	0001 CUSTOMER/OPERATOR	1
3.2	117	TASK STATUS LOG	O	3.0	PEN. TASKS		1
3.4	117	TASK STATUS LOG	I	3.0	TASK STATUS UPDATES		1
3.2.1	117	TASK STATUS LOG	I	3.2	NEW TASKS		2
3.2.1	117	TASK STATUS LOG	O	3.2	PENDING TASKS, CREW TASK SELECTI		2
3.2.6	117	TASK STATUS LOG	I	3.2	TASK STATUS UPDATE		2
3.3.3	117	TASK STATUS LOG	I	3.3	TASK STATUS UPDATE		2
3.4.1	117	TASK STATUS LOG	I	3.4	TASK STATUS UPDATE		2
3.4.2	117	TASK STATUS LOG	I	3.4	TASK STATUS UPDATE		2
4.1.1.5	120	ENVIRONMENT	O	4.1.1	MAGNETIC FIELD DENSITY		3
4.1.3.3	120	ENVIRONMENT	O	4.1.3	DENSITY, MAGNETIC FIELD		3
4.4.1	120	ENVIRONMENT	O	4.4	MAGNETIC FIELD		2

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
4.4.2	120	ENVIRONMENT	I	4.4	DENSITY, MAGNETIC FIELD		2
4.4.1.2	120	ENVIRONMENT	O	4.4.1	MAGNETIC FIELD		3
4.1.2	121	NAVIGATION STATE,ATTITUDE	O	4.1	STATE,ATTITUDE		2
3.4.1	121	NAVIGATION STATE/ATTITUDE	O	3.4	TIME		2
3.4.2	121	NAVIGATION STATE/ATTITUDE	O	3.4	TIME		2
4.1.1	121	NAVIGATION STATE/ATTITUDE	O	4.1	ATTITUDE		2
4.1.1	121	NAVIGATION STATE/ATTITUDE	I	4.1	STATE, ATTITUDE		2
4.1.3	121	NAVIGATION STATE/ATTITUDE	O	4.1	NAVIGATION STATE/ATTIUDE		2
4.1.4	121	NAVIGATION STATE/ATTITUDE	O	4.1	STATE,ATTITUDE		2
4.1.4	121	NAVIGATION STATE/ATTITUDE	I	4.1	COFLIER STATES		2
4.1.5	121	NAVIGATION STATE/ATTITUDE	O	4.1	COFLIER NAVIGATION STATE		2
4.1.6	121	NAVIGATION STATE/ATTITUDE	I	4.1	TIME		2
4.1.1.1	121	NAVIGATION STATE/ATTITUDE	I	4.1.1	PLATFORM NAVIGATION STATE, ORBIT		3
4.1.1.3	121	NAVIGATION STATE/ATTITUDE	O	4.1.1	PLATFORM ATTITUDE, STATE, TIME		3
4.1.1.4	121	NAVIGATION STATE/ATTITUDE	I	4.1.1	PLATFORM ATTITUDE		3
4.1.1.5	121	NAVIGATION STATE/ATTITUDE	O	4.1.1	PLATFORM STATE, ATTITUDE		3
4.1.1.5	121	NAVIGATION STATE/ATTITUDE	I	4.1.1	NAVIGATION STATE UPDATE		3
4.1.2.4	121	NAVIGATION STATE/ATTITUDE	O	4.1.2	STATE CHANGE CONFIRMATION		3
4.1.2.6	121	NAVIGATION STATE/ATTITUDE	O	4.1.2	PLATFORM ATTITUDE		3
4.1.3.1	121	NAVIGATION STATE/ATTITUDE	O	4.1.3	PLATFORM STATE		3
4.1.3.3	121	NAVIGATION STATE/ATTITUDE	O	4.1.3	PLATFORM STATE		3
0.0	121	NAVIGATION STATE/ATTITUDE	I	4.1.6	TIME	0167 TIME FREQUENCY SOURC	3
4.1.6.1	121	NAVIGATION STATE/ATTITUDE	I	4.1.6	TIME		3
4.2.1.5	121	NAVIGATION STATE/ATTITUDE	O	4.2.1	BETA ANGLE, POSITION, ATTITUDE		3
4.2.2.3	121	NAVIGATION STATE/ATTITUDE	O	4.2.2	BETA ANGLE, POSITION, ATTITUDE		3
4.4.1	121	NAVIGATION STATE/ATTITUDE	O	4.4	NAVIGATION STATE/ATTITUDE		2
4.4.1.1	121	NAVIGATION STATE/ATTITUDE	O	4.4.1	ATTITUDE		3
4.4.1.2	121	NAVIGATION STATE/ATTITUDE	O	4.4.1	POSITION		3
4.4.1.3	121	NAVIGATION STATE/ATTITUDE	O	4.4.1	NAVIGATION STATE, ATTITUDE		3
4.4.1.4	121	NAVIGATION STATE/ATTITUDE	O	4.4.1	ATTITUDE		3
1.5.3	123	ENGINEERING DATA ARCHIVE	I	1.5	ARCHIVAL ENGINEERING DATA		2
1.5.5	123	ENGINEERING DATA ARCHIVE	I	1.5	ANALYZED CORE DATA		2
1.5.5	123	ENGINEERING DATA ARCHIVE	O	1.5	ANALYSIS DATA		2
1.5.6	123	ENGINEERING DATA ARCHIVE	O	1.5	RETRIEVAL		2
1.5.3	124	SHORT TERM CORE ARCHIVE	I	1.5	CORE OPERATING DATA		2
1.5.4	124	SHORT TERM CORE ARCHIVE	O	1.5	CORE OPERATING DATRA		2
1.1.3	125	DATA ACCOUNTING	I	1.1	REAL TIME DATA SENT		2
1.2.3	125	DATA ACCOUNTING	I	1.2	BULK DATA SENT		2
1.2.5	125	DATA ACCOUNTING	O	1.2	ALL DATA SENT, RECEIVED		2
1.5.2	125	DATA ACCOUNTING	I	1.5	CORE DATA RECEIVED		2
1.5.3	125	DATA ACCOUNTING	I	1.5	CORE DATA SENT		2
1.5.6	125	DATA ACCOUNTING	O	1.5	CORE DATA ACCOUNT		2
1.5.2	126	CORE DATA BUFFER	I	1.5	BULK CORE DATA		2
1.5.3	126	CORE DATA BUFFER	O	1.5	BULK CORE DATA		2
0.0	130	GROUND FACILITIES STATUS	I	5.0	CONFIGURATION, STATUS	0129 GROUND DATA PROCESSI	1
5.2	130	GROUND FACILITIES STATUS	O	5.0	CONFIGURATION, STATUS		1
4.1.1	137	OBJECT STATES	O	4.1	OBJECT RELATIVE STATES		2
4.1.1	137	OBJECT STATES	I	4.1	OBJECT NAVIGATION STATE		2
4.1.4	137	OBJECT STATES	O	4.1	OBJECT STATES		2
4.1.5	137	OBJECT STATES	I	4.1	OBJECT STATES UPDATES		2
4.1.5	137	OBJECT STATES	O	4.1	OBJECT STATES		2
4.2.5.6	137	OBJECT STATUS	O	4.2.5			3
1.1.1	139	REAL TIME DATA BUFFER	I	1.1	ACQUIRED REALTIME DATA		2

FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
1.1.2	139	REAL TIME DATA BUFFER	O	1.1	REAL TIME DATA QUEUEING LIST		2
1.1.3	139	REAL TIME DATA BUFFER	O	1.1	REAL TIME DATA QUEUEING LIST		2
1.1.4	139	REAL TIME DATA BUFFER	O	1.1	TRANSMITABLE REAL TIME DATA		2
1.1.5	139	REAL TIME DATA BUFFER	I	1.1	FORMATTED REALTIME DATA		2
1.1.5	139	REALTIME DATA BUFFER	O	1.1	UNFORMATTED REALTIME DATA		2
2.3	150	PROCEDURES	I	2.0	CORE PROCEDURES		1
2.3.2	150	PROCEDURES	I	2.3	CORE PROCEDURES		2
4.3.2.2	150	PROCEDURES	O	4.3.2	ABNORMAL AND EMERGENCY PROCEDURE		3
3.3.2	171	MODE STATUS	O	3.3	MODE CHANGES		2
3.3.4	171	MODE STATUS	O	3.3	MODE CHANGES		2
3.4.3	171	MODE STATUS	I	3.4	MODE CHANGE		2
4.1.4	171	MODE STATUS	O	4.1	CORE SYSTEM MODE		2
4.1.2.2	171	MODE STATUS	O	4.1.2	MODE CHANGE CONFIRMATION		3
4.1.2.2	171	MODE STATUS	I	4.1.2	MODE CHANGE		3
4.2.1.4	171	MODE STATUS	O	4.2.1	MODE CHANGE		3
4.3.2.2	171	MODE STATUS	O	4.3.2	CORE MODE		3
4.1.1.5	174	NAVIGATION STATE FORECAST	I	4.1.1	PLATFORM NAVIGATION STATE, FOREC		3
4.1.1.3	175	STAR/OBJECT CATALOG	O	4.1.1	STAR,OBJECT REFERENCE LOCATION		3
4.1.1.4	176	EPHEMERIDES	O	4.1.1	STAR REFERENCE COORDINATES		3
4.2.1.5	176	EPHEMERIDES	O	4.2.1	SUN REFERENCE COORDINATES		3
4.2.2.3	176	EPHEMERIDES	O	4.2.2	SUN REFERENCE COORDINATES		3
4.4.1.3	176	EPHEMERIDES	O	4.4.1	REFERENCES COORDINATES		3
4.4.1.4	176	EPHEMERIDES	O	4.4.1	REFERENCE COORDINATES		3
4.1.1.3	176	EPHERMERIDES	I	4.1.1	STAR, OBJECT EPHEMERIDES		3
4.2.1.1	193	POWER SYSTEM STATUS	I	4.2.1	ARRAY FAULTS, PERFORMANCE		3
4.2.1.2	193	POWER SYSTEM STATUS	I	4.2.1	DISTRIBUTION, LOAD STATUS		3
4.2.1.2	193	POWER SYSTEM STATUS	O	4.2.1	POWER STATUS		3
4.2.1.3	193	POWER SYSTEM STATUS	I	4.2.1	SOURCE CONFIGURATION STORAGE STA		3
4.2.1.3	193	POWER SYSTEM STATUS	O	4.2.1	POWER DEMAND		3
4.2.1.4	193	POWER SYSTEM STATUS	I	4.2.1	ARRAY MODE		3
4.2.1.5	193	POWER SYSTEM STATUS	I	4.2.1	ENERGY FORECAST		3
4.2.1.5	193	POWER SYSTEM STATUS	O	4.2.1	STORAGE, ARRAY PERFORMANCE, STAT		3
4.2.2.1	200	THERMAL SYSTEM STATUS	I	4.2.2	THERMAL SYSTEM STATUS AND PERFOR		3
4.2.2.1	200	THERMAL SYSTEM STATUS	O	4.2.2	THERMAL SYSTEM LOAD CAPACITY FOR		3
4.2.2.3	200	THERMAL SYSTEM STATUS	O	4.2.2	LOOP STATUS AND PERFORMANCE		3
4.2.2.3	200	THERMAL SYSTEM STATUS	I	4.2.2	THERMAL LOAD CAPACITY FORECAST		3
4.1	203	MASS PROPERTIES CONFIGURATION	O	4.0	MASS, AREA PROPERTIES		1
4.5	203	MASS PROPERTIES CONFIGURATION	I	4.0	PROPERTY UPDATES		1
4.1.1	203	MASS PROPERTIES CONFIGURATION	O	4.1	MASS, AREA PROPERTIES		2
4.1.3	203	MASS PROPERTIES CONFIGURATION	O	4.1	AREA PROPERTIES		2
4.1.1.5	203	MASS PROPERTIES CONFIGURATION	O	4.1.1	MASS,AREA,THRUSTER PROPERTIES		3
4.1.3.1	203	MASS PROPERTIES CONFIGURATION	O	4.1.3	MASS PROPERTIES		3
4.1.3.3	203	MASS PROPERTIES CONFIGURATION	O	4.1.3	MASS PROPERTIES		3
4.2.1.5	203	MASS PROPERTIES CONFIGURATION	O	4.2.1	AREA PROPERTIES		3
4.2.2.3	203	MASS PROPERTIES CONFIGURATION	O	4.2.2	RADIATOR CONFIGURATION		3
4.5.3	203	MASS PROPERTIES CONFIGURATION	O	4.5	MASS PROPERTIES AREA		2
4.5.3	203	MASS PROPERTIES CONFIGURATION	I	4.5	MASS, MOMENTS OF INERTIA, AREAS		2
4.5.1	206	FLIGHT FACILITIES	O	4.5	FLIGHT FACILITIES STATUS		2
4.5.4.1	206	FLIGHT FACILITIES	O	4.5.4	FLIGHT FACILITIES STATUS		3
4.5.4.2	206	FLIGHT FACILITIES	O	4.5.4	FLIGHT FACILITIES STATUS		3
4.5.4.3	206	FLIGHT FACILITIES	O	4.5.4	FLIGHT FACILITIES STATUS		3
4.5.4	206	FLIGHT FACILITIES STATUS	O	4.5	FLIGHT FACILITIES STATUS		2
0.0	206	FLIGHT FACILITIES STATUS	I	5.0	CONFIGURATION STATUS	0127 FLIGHT DATA PROCESSI	1

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FUNCTION NO	DATA STORAGE NO	DATA STORAGE NAME	I O MODE	FLOW NO	DATA FLOW NAME	EX SOURCE NUMBER NAME	FLOW LEVEL
5.1	206	FLIGHT FACILITIES STATUS	O	5.0	CONFIGURATION, STATUS		1
2.5.2	231	CUSTOMER COMMANDS	O	2.5	STORED COMMAND SEQUENCES		2
3.3.2	231	CUSTOMER COMMANDS	O	3.3	STORED COMMAND SEQUENCE		2
4.2.5.1	240	COMMUNICATION EQUIPMENT STATUS	I	4.2.5	CONTROL PARAMETER STATUS		3
4.2.5.1	240	COMMUNICATION EQUIPMENT STATUS	O	4.2.5	EQUIPMENT AVAILABILITY		3
4.2.5.4	240	COMMUNICATION EQUIPMENT STATUS	I	4.2.5	AVAILABILITY		3
4.2.5.7	240	COMMUNICATION EQUIPMENT STATUS	O	4.2.5	EQUIPMENT AVAILABILITY		3
4.2.5.3	241	COMMUNICATION MONITOR	I	4.2.5	COMMUNICATION STATUS		3
4.2.5.4	241	COMMUNICATION MONITOR	O	4.2.5	COMMUNICATION STATUS		3
4.2.5.7	241	COMMUNICATION MONITOR	O	4.2.5	COMMUNICATION STATUS		3
4.2.5.4	243	RECONFIGURATION PROCEDURES	O	4.2.5			3
4.2.5.7	244	TELEMETRY TABLE	O	4.2.5	ROUTING		3
4.2.5.1	245	NETWORK PLAN LINK PRIORITIES	O	4.2.5			3
4.1.1.4	253	GN & C STATUS	I	4.1.1	ATTITUDE, SENSOR STATUS		3
4.1.3.1	253	GN & C STATUS	O	4.1.3	RATE EFFECTOR STATUS		3
4.1.3.2	253	GN & C STATUS	I	4.1.3	CMG,RCS,TORQUER,STATUS		3
4.4.1	274	MODE FORECAST	I	4.4	VENTING FORECAST		2
4.5.4	275	CORE SYSTEM HISTORY	O	4.5	TRENDS, HISTORY UPDATE		2
4.5.4	275	CORE SYSTEM HISTORY	I	4.5	CORE SYSTEM HISTORY		2
4.5.4.3	275	CORE SYSTEM HISTORY	O	4.5.4	TRENDS, HISTORY UPDATE		3
4.5.4.3	275	CORE SYSTEM HISTORY	I	4.5.4	CORE SYSTEM HISTORY		3
3.1	278	MODE COMPATIBILITY MATRIX	I	3.0	RESOURCES, CONSTRAINTS, RESTRICT		1
3.3	278	MODE COMPATIBILITY MATRIX	O	3.0	RESOURCES, CONSTRAINTS, RESTRICT		1
3.4	278	MODE COMPATIBILITY MATRIX	O	3.0	RESURCES, CONSTRAINTS, RESTRICTI		1
3.1.3	278	MODE COMPATIBILITY MATRIX	I	3.1	OPERATING MODE RESOURCES, CONSTR		2
3.2.3	278	MODE COMPATIBILITY MATRIX	O	3.2	RESOURCES, CONSTRAINTS, RESTRICT		2
3.3.2	278	MODE COMPATIBILITY MATRIX	O	3.3	RESOURCES, CONSTRAINTS, RESTRICT		2
3.3.4	278	MODE COMPATIBILITY MATRIX	O	3.3	RESOURCES, CONSTRAINTS, RESTRICT		2
3.4.4	278	MODE COMPATIBILITY MATRIX	O	3.4	RESOURCES, CONSTRAINTS, RESTRICT		2

E.3 External to Process Data Flows

Data flows between external agencies and processes are an indication of the degree of involvement of the external agencies in the operation of the system.

This section shows the data flows between external and processes, organized by external agency. These flows may also be correlated with the input/output data in the functional data base to show amonts of data transferred and interval.

The column entries are:

- Fun. No. - The data flow diagram on which the data flow appears
- Level - The data flow diagram level
- IO Mode - Whether the data flow is input to (I) or output from (O) the external
- Ex Source - Code number of the external data that some of the names will have alight variations of aliases, identifiable as such by the code number
- Ex Source Name - Name of external source
- Data Flow Message - Name of data flow
- Process No - Source or destination process number
- Process Name - Source or destination process name

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
0.0	0	I	1	CUSTOMER/OPERATOR	CORE, PAYLOAD DATA	1.0	MANAGE CUSTOMER/OPERATOR DELIVERED DATA
0.0	0	I	1	CUSTOMER/OPERATOR	DISPOSITION	2.0	MANAGE CUSTOMER/OPERATOR SUPPLIED DATA
0.0	0	O	1	CUSTOMER/OPERATOR	PAYLOAD & CORE COMMANDS, DATA	2.0	MANAGE CUSTOMER/OPERATOR SUPPLIED DATA
0.0	0	O	1	CUSTOMER/OPERATOR	SCHEDULE REQUESTS	3.0	SCHEDULE AND EXECUTED OPERATIONS
0.0	0	I	1	CUSTOMER/OPERATOR	DISPOSITION, SCHEDULES, CAPABILITIES	3.0	SCHEDULE AND EXECUTE OPERATIONS
0.0	0	I	1	CUSTOMER/OPERATOR	STATUS, ALARMS	4.0	OPERATE CORE SYSTEMS
0.0	0	O	1	CUSTOMER/OPERATOR	RESPONSE, SYSTEM CONTROL	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	O	1	CUSTOMER/OPERATOR	PROMPTS, PROCEDURES, I/O, REACTIONS	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	I	1	CUSTOMER/OPERATOR	PROMPTS, PROCEDURES, I/O, REACTIONS	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	O	1	CUSTOMER/OPERATOR	MAINTENANCE NEEDS	7.0	SUPPORT SPACE STATION PROGRAM
0.0	0	I	7	CORE SYSTEMS	OPERATING COMMANDS	4.0	OPERATE CORE SYSTEM
0.0	0	O	7	CORE SYSTEMS	CORE SENSOR DATA	4.0	OPERATE CORE SYSTEM
0.0	0	O	10	DATA PROCESSING RESOURCES	STATUS	5.0	MANAGE SSDS FACILITIES AND RESOURCES
0.0	0	I	10	DATA PROCESSING RESOURCES	RECONFIGURE	5.0	MANAGE SSDS FACILITIES AND RESOURCES
0.0	0	O	13	PAYLOADS AND CONSTELLATION ELEMENTS	PAYLOAD DATA	1.0	MANAGE CUSTOMER/OPERATOR DELIVERED DATA
0.0	0	I	13	PAYLOADS AND CONSTELLATION ELEMENTS	UNRESTRICTED PAYLOAD COMMANDS, DATA	2.0	MANAGE CUSTOMER/OPERATOR SUPPLIED DATA
0.0	0	I	13	PAYLOADS AND CONSTELLATION ELEMENTS	VALID, EXECUTABLE PAYLOAD COMMANDS	3.0	SCHEDULE AND EXECUTE OPERATIONS
0.0	0	O	14	CUSTOMERS AND CONTRACTORS	PROCEDURES, I/O	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	I	14	CUSTOMERS AND CONTRACTORS	PROCEDURES, I/O	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	I	14	CUSTOMERS AND CONTRACTORS	MODELS, DATA	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	I	15	HARDWARE AND SOFTWARE FOR INTEGRATION	SIMULATED STIMULUS	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	O	15	HARDWARE AND SOFTWARE FOR INTEGRATION	RESPONSE	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	I	112	TMIS	SSIS USAGE, LOGISTICS NEEDS	7.0	SUPPORT SPACE STATION PROGRAM
1.0	1	I	2	ONBOARD CUSTOMER/OPERATOR	OPERATING DATA	1.1	MANAGE REALTIME DATA RETURN
1.0	1	I	2	ONBOARD CUSTOMER/OPERATOR	VOICE, VIDEO	1.1	MANAGE REALTIME DATA RETURN
1.0	1	O	2	ONBOARD CUSTOMER/OPERATOR	VOICE, VIDEO	1.1	MANAGE REALTIME DATA RETURN
1.0	1	I	2	ONBOARD CUSTOMER/OPERATOR	CORE, PAYLOAD DELAYED DATA	1.2	MANAGE DELAYABLE DATA RETURN
1.0	1	O	7	CORE SYSTEMS	CORE REALTIME DATA	1.1	MANAGE REALTIME DATA RETURN
1.0	1	O	20	OMV, OTV AND CONSTELLA-	CONSTELLATION REALTIME DATA	1.1	MANAGE REALTIME DATA

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
				TION INTERFACES			RETURN
1.0	1	O	23	SPACE STATION PAYLOADS	PAYLOAD REALTIME DATA	1.1	MANAGE REALTIME DATA RETURN
1.0	1	O	27	GROUND CUSTOMERS	CUSTOMER VOICE, VIDEO COMM.	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	I	27	GROUND CUSTOMERS	PAYLOAD DATA	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	I	27	GROUND CUSTOMERS	CUSTOMER VOICE, VIDEO COMM.	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	I	28	CUSTOMER RDC'S (NON-SSDS SSIS/SCS)	PAYLOAD DATA	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	O	30	ENGINEERING DATA CENTER	ADDITIONAL ANCILLARY DATA	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	I	30	ENGINEERING DATA CENTER	CORE ARCHIVE DATA	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	I	33	GROUND OPERATORS	CORE DATA	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	O	33	GROUND OPERATORS	OPERATOR VOICE, VIDEO COMM.	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	I	33	GROUND OPERATORS	OPERATOR VOICE, VIDEO COMM.	1.5	MANAGE DELIVERABLE CORE DATA
1.1	2	I	2	ONBOARD CUSTOMER/OPERATOR	VOICE, VIDEO	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	2	ONBOARD CUSTOMER/OPERATOR	VOICE, VIDEO	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	7	CORE SYSTEMS	CORE REALTIME DATA	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	20	OMV, OTV AND CONSTELLATION INTERFACES	CONSTELLATION REALTIME DATA	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	23	SPACE STATION PAYLOADS	PAYLOAD REALTIME DATA	1.1.1	ACQUIRE REALTIME DATA
1.2	2	O	20	OMV, OTV AND CONSTELLATION INTERFACES	CONSTELLATION DELAYABLE PAYLOAD DATA	1.2.1	CAPTURE DELAYED PAYLOAD DATA
1.2	2	O	23	SPACE STATION PAYLOADS	STATION DELAYABLE PAYLOAD DATA	1.2.1	CAPTURE DELAYED PAYLOAD DATA
1.3	2	I	163	CREW FAMILIES & FRIENDS	VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.3	2	O	163	CREW FAMILIES & FRIENDS	VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.4	2	O	106	CUSTOMER	ONSITE CUSTOMER VOICE, VIDEO	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.4	2	I	106	CUSTOMER	ONSITE CUSTOMER VOICE, VIDEO	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.4	2	I	106	CUSTOMER	CUSTOMER BULK, REALTIME DATA	1.4.3	CUSTOMER DATA HANDLING
1.4	2	I	106	CUSTOMER	CUSTOMER DATA ACCOUNT	1.4.6	CUSTOMER DATA ACCOUNTING
1.4	2	O	106	CUSTOMER	PURGE, RETRIEVE REQUESTS	1.4.6	CUSTOMER DATA ACCOUNTING
1.4	2	O	267	RDC OPERATOR	OFFSITE CUSTOMER VOICE, VIDEO	1.4.7	SSIS ROUTING AND TRANSMISSION
1.4	2	I	267	RDC OPERATOR	OFFSITE CUSTOMER VOICE, VIDEO	1.4.7	SSIS ROUTING AND TRANSMISSION
1.4	2	I	277	OFFSITE CUSTOMER	CUSTOMER DATA	1.4.7	SSIS ROUTING AND TRANSMISSION
1.4	2	I	277	OFFSITE CUSTOMER	OFFSITE CUSTOMER VOICE, VIDEO	1.4.7	SSIS ROUTING AND TRANSMISSION
1.4	2	O	277	OFFSITE CUSTOMER	OFFSITE CUSTOMER VOICE, VIDEO	1.4.7	SSIS ROUTING AND TRANSMISSION
1.5	2	I	102	OPERATOR	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.4	DISPLAYS AND CONTROLS
1.5	2	I	102	OPERATORS	CORE DISPLAYS	1.5.4	DISPLAYS AND CONTROLS
1.5	2	O	102	OPERATOR	CONTROL	1.5.4	DISPLAYS AND CONTROLS

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
1.5	2	O	102	OPERATORS	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.4	DISPLAYS AND CONTROLS
1.5	2	O	102	OPERATORS	PURGE,RETRIEVE REQUESTS	1.5.6	CORE DATA ACCOUNTING
1.5	2	I	102	OPERATORS	CORE ACCOUNT DATA	1.5.6	CORE DATA ACCOUNTING
2.0	1	O	1	CUSTOMER/OPERATOR	VEHICLE & PAYLOAD COMMANDS/ DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	I	1	CUSTOMER/OPERATOR	DISPOSITION	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	I	20	OMV,OTV,AND CONSTELLATION INTERFACES	VALID PAYLOAD DATA	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.0	1	I	20	OMV,OTV,AND CONSTELLATION INTERFACES	VALID, NON-RESTRICTED PAYLOAD COMMANDS	2.2	CHECK COMMAND RESTRICTION /CONSTRAINT
2.0	1	I	20	OMV,OTV AND CONSTELLATION INTERFACES	ANCILLARY DATA	2.4	PROVIDE ANCILLARY DATA
2.0	1	O	20	OMV,OTV AND CONSTELLATION INTERFACES	CUSTOMER SYSTEM OPERATIONS DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	I	20	OMV,OTV AND CONSTELLATION INTERFACES	OPERATION COMMANDS DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	O	20	OMV,OTV AND CONSTELLATION INTERFACES	SSPE STATUS	2.6	SSPE CHECKOUT AND SERVIC-ING
2.0	1	I	23	SPACE STATION PAYLOADS	VALID PAYLOAD DATA	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.0	1	I	23	SPACE STATION PAYLOADS	VALID REALTIME COMMANDS	2.2	CHECK COMMAND RESTRICTION /CONSTRAINT
2.0	1	I	23	SPACE STATION PAYLOADS	ANCILLARY DATA	2.4	PROVIDE ANCILLARY DATA
2.0	1	I	23	SPACE STATION PAYLOADS	PAYLOAD OPERATING COMMANDS DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	O	23	SPACE STATION PAYLOADS	CUSTOMER SYSTEM OPERATIONS DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	I	32	CORE OPERATOR	SSPE DIAGNOSES	2.6	SSPE CHECKOUT AND SERVIC-ING
2.0	1	I	102	OPERATOR	DISPOSITION	2.3	VALIDATE CORE COMMANDS
2.0	1	O	102	OPERATOR	CORE COMMANDS/DATA	2.3	VALIDATE CORE COMMANDS/ DATA
2.0	1	O	106	CUSTOMERS	VEHICLE & PAYLOAD COMMANDS/ DATA	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.0	1	I	106	CUSTOMERS	DISPOSITION	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.3	2	I	102	OPERATOR	DISPOSITION	2.3.1	AUTHORIZE OPERATOR
2.3	2	O	102	OPERATOR	OPERATOR LOG-ON	2.3.1	AUTHORIZE OPERATOR
2.3	2	O	102	OPERATOR	CORE COMMANDS/DATA	2.3.2	AUTHORIZE OPERATION
2.3	2	I	102	OPERATOR	DISPOSITION	2.3.2	AUTHORIZE OPERATION
2.5	2	O	1	CUSTOMERS/OPERATORS	(SEE 2.0 FOR COMMAND PATH)	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5	2	I	1	CUSTOMERS/OPERATORS	PROCESSED PAYLOAD DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	I	1	CUSTOMERS/OPERATORS	OTV PAYLOAD STATUS	2.5.3	SUPPORT OTV OPERATIONS
2.5	2	I	1	CUSTOMERS/OPERATORS	OMV, PAYLOAD STATUS	2.5.4	SUPPORT OMV OPERATIONS
2.5	2	I	1	CUSTOMERS/OPERATOR	PAYLOAD DIAGNOSTICS	2.5.5	CUSTOMER PAYLOAD CHECKOUT /SERVICING
2.5	2	I	23	SPACE STATION PAYLOADS	PROCESSED STATION, PAYLOAD DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	O	23	SPACE STATION PAYLOADS	STATION PAYLOAD OPERATING DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	I	23	SPACE STATION PAYLOADS	EXECUTABLE CONSTELLATION	2.5.2	CUSTOMER PAYLOAD

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
2.5	2	O	23	SPACE STATION PAYLOADS	PAYLOAD COMMANDS PAYLOAD STATUS	2.5.5	OPERATIONS CUSTOMER PAYLOAD CHECKOUT /SERVICING
2.5	2	O	144	OTV COMMUNICATION INTERFACE	OTV STATUS	2.5.3	SUPPORT OTV OPERATIONS
2.5	2	I	144	OTV COMMUNICATION INTERFACE	OTV COMMAND	2.5.3	SUPPORT OTV INTERFACE
2.5	2	O	154	OMV COMMUNICATION INTERFACE	OMV STATUS	2.5.4	SUPPORT OMV OPERATIONS
2.5	2	I	154	OMV COMMUNICATION INTERFACE	OMV COMMAND	2.5.4	SUPPORT OMV OPERATIONS
2.5	2	I	170	CONSTELLATION INTERFACE	PROCESSED CONSTELLATION PAYLOAD DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	O	170	CONSTELLATION INTERFACE	CONSTELLATION PAYLOAD OPERATING DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	I	170	CONSTELLATION INTERFACE	EXECUTABLE CONSTELLATION PAYLOAD COMMANDS	2.5.2	CUSTOMER PAYLOAD OPERATIONS
2.5	2	O	170	CONSTELLATION INTERFACE	CONSTELLATION STATUS	2.5.5	CUSTOMER PAYLOAD CHECKOUT /SERVICING
2.5.3	3	O	102	OPERATOR	CONTROL HANDOFF COORDINATION	1.1.1	ACQUIRE REALTIME DATA
2.5.3	3	O	102	OPERATOR	OTV CONTROL REQUESTS	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5.3	3	I	102	OPERATOR	STATE, COURSE PROJECTIONS	2.5.3.3	OTV DEPLOYMENT RETRIEVAL
2.5.3	3	I	144	OTV COMMUNICATION INTERFACE	PAYLOAD CHECKOUT COMMANDS	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5.3	3	I	144	OTV COMMUNICATION INTERFACE	RETURN TARGETING	2.5.3.3	OTV DEPLOYMENT RETRIEVAL
2.5.3	3	I	144	OTV COMMUNICATION INTERFACE	COURSE CORRECTION	2.5.3.3	OTV DEPLOYMENT RETRIEVAL
2.5.3	3	I	144	OTV COMMUNICATION INTERFACE	PAYLOAD, OTV COMMAND	2.5.3.4	OTV OPERATION
2.5.3	3	O	144	OTV COMMUNICATION INTERFACE	OTV, PAYLOAD SIGNALS	2.5.3.5	OTV STATUS REPORT
2.5.3	3	O	146	OTV BERTH	VOLTAGE, CURRENT, TEMPERATURE, PRESSURE, LEVELS	2.5.3.1	OTV SERVICING
2.5.3	3	O	146	OTV BERTH	DIAGNOSTIC DATA	2.5.3.2	OTV CHECKOUT/DIAGNOSTICS
2.5.3	3	I	146	OTV BERTH	LAUNCH TARGETING	2.5.3.3	OTV DEPLOYMENT/RETRIEVAL
2.5.3	3	I	147	FUEL DEPOT(S)	FUELING CONTROL	2.5.3.1	OTV SERVICING
2.5.3	3	I	148	CHARGER	CHARGER CONTROL	2.5.3.1	OTV SERVICING
2.5.3	3	I	159	EVA CREW	OTV MAINTENANCE ACTIONS	2.5.3.2	OTV CHECKOUT/DIAGNOSTICS
2.5.4	3	O	102	OPERATOR	CONTROL HANDOFF COORDINATION	1.1.1	ACQUIRE REALTIME DATA
2.5.4	3	I	102	OPERATOR	STATE, COURSE PROJECTIONS	2.5.4.3	OMV DEPLOYMENT RETRIEVAL
2.5.4	3	O	102	OPERATOR	MANEUVER	2.5.4.3	OMV DEPLOYMENT RETRIEVAL
2.5.4	3	O	102	OPERATOR	CONTROL	2.5.4.4	REMOTE OPERATIONS CONTROL
2.5.4	3	I	102	OPERATOR	MANIPULATOR STATE	2.5.4.4	REMOTE OPERATIONS CONTROL
2.5.4	3	I	147	FUEL DEPOT(S)	FUELING CONTROL	2.5.4.1	OMV SERVICING
2.5.4	3	I	148	CHARGER	CHARGER CONTROL	2.5.4.1	OMV SERVICING
2.5.4	3	O	152	OMV BERTH	SERVICE DATA	2.5.4.1	OMV SERVICING
2.5.4	3	O	152	OMV BERTH	DIAGNOSTIC DATA	2.5.4.2	OMV CHECKOUT/DIAGNOSTICS
2.5.4	3	I	152	OMV BERTH	LAUNCH TARGETING	2.5.4.3	OMV DEPLOYMENT/RETRIEVAL
2.5.4	3	I	154	OMV COMMUNICATION INTERFACE	PAYLOAD CHECKOUT COMMANDS	2.2	CHECK PAYLOAD COMMAND RESTRICTED/CONSTELLATION
2.5.4	3	I	154	OMV COMMUNICATION INTERFACE	COURSE CORRECTION	2.5.4.3	OMV DEPLOYMENT/RETRIEVAL

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
2.5.4	3	I	154	OMV COMMUNICATION INTERFACE	RETURN TARGETING	2.5.4.3	OMV DEPLOYMENT/RETRIEVAL
2.5.4	3	I	154	OMV COMMUNICATION INTERFACE	MANIPULATOR COMMANDS	2.5.4.4	REMOTE OPERATIONS CONTROL
2.5.4	3	I	154	OMV COMMUNICATION INTERFACE	OMV COMMAND	2.5.4.5	OMV OPERATION
2.5.4	3	O	154	OMV COMMUNICATION INTERFACE	OMV, PAYLOAD STATUS	2.5.4.6	OMV STATUS REPORT
2.5.4	3	I	159	EVA CREW	OMV MAINTENANCE ACTIONS	2.5.4.2	OMV CHECKOUT/DIAGNOSTICS
3.0	1	O	1	CUSTOMERS/OPERATORS	OPERATIONS CHARACTERISTICS	3.1	DEVELOP RECURRING OPERATIONS MASTERS
3.0	1	I	1	CUSTOMER/OPERATOR	APPARENT CONFLICTS, POSSIBLE RESOLUTIONS	3.1	RECURRING OPERATIONS MASTERS
3.0	1	I	1	CUSTOMERS/OPERATORS	SCHEDULE CONFIRMATION CHANGE REQUESTS	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	O	1	CUSTOMERS/OPERATORS	SCHEDULE CONFIRMATION CHANGE REQUESTS	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	I	1	CUSTOMER/OPERATOR	RESOURCE AVAIL.,UTILIZ.,INTER-FERENCES POSSIBLE RESOLUTION	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	I	83	PAYLOADS, OTV, OMV CONSTELLATION INTERFACE	VALID, EXECUTABLE PAYLOAD COMMANDS	3.4	SEQUENCE OPERATIONS
3.0	1	O	92	NETWORK CONTROL	COMMUNICATION SCHEDULE	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	I	92	NETWORK CONTROL	COMMUNICATION NEEDS	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	O	250	NSTS MISSION CONTROL	NSTS SCHEDULES, MANIFESTS	3.1	RECURRING OPERATIONS MASTERS
3.1	2	O	102	OPERATOR	SPACE STATION OPERATIONS CHARACTERISTICS	3.1.2	DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS
3.1	2	O	102	OPERATOR	CONFIRMED RESTRICTIONS, CONSTRAINTS	3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1	2	I	102	OPERATOR	POTENTIAL CONFLICTS, DETAILS	3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1	2	O	102	OPERATOR	MAJOR EVENT SPACE STATION OPERATIONS CHARACTERISTICS	3.1.4	DEVELOP MAJOR EVENT OPERATIONS
3.1	2	O	106	CUSTOMER	PAYLOAD OPERATIONS CHARACTERISTICS	3.1.1	DEVELOP NORMAL DAY PAYLOAD OPERATIONS
3.1	2	O	106	CUSTOMER	CONFIRMED RESTRICTIONS/ CONSTRAINTS	3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1	2	I	106	CUSTOMER	POTENTIAL CONFLICTS, DETAILS	3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1	2	O	106	CUSTOMER	MAJOR EVENT PAYLOAD CHARACTERISTICS	3.1.4	DEVELOP MAJOR EVENT OPERATIONS
3.1	2	O	250	NSTS MISSION CONTROL	NSTS SCHEDULES, MANIFESTS	3.1.4	DEVELOP MAJOR EVENT OPERATIONS
3.2	2	O	33	GROUND OPERATOR	NEW CORE OPERATIONS	3.2.2	INCORPERATE NEW/REVISED OPERATIONS
3.2	2	I	33	GROUND OPERATOR	RESOURCE AVAIL.,UTILIZ.,INTER-FERENCES POSSIBLE RESOLUTION	3.2.5	RESOLVE CONFLICTS
3.2	2	O	33	GROUND OPERATOR	RESOLUTION	3.2.5	RESOLVE CONFLICTS
3.2	2	I	92	NETWORK CONTROL	COMMUNICATIONS NEEDS	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	92	NETWORK CONTROL	COMMUNICATION SCHEDULES	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES

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3.2	2	I	102	OPERATOR	BASELINE SCHEDULES	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	102	OPERATOR	SCHEDULE CONFIRMINATION, CORE CHANGE REQUESTS	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	I	106	CUSTOMER	BASELINE SCHEDULES	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	106	CUSTOMER	SCHEDULE CONFIRMATION, PAYLOAD CHANGE REQUEST	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	106	CUSTOMER	NEW PAYLOAD OPERATIONS	3.2.2	INCORPERATE NEW/REVISED OPERATIONS
3.2	2	I	106	CUSTOMER	RESOURCE,AVAIL.,UTILIZ., INTERFER.,POSSIBLE RESOLUTIONS	3.2.5	RESOLVE CONFLICTS
3.2	2	O	106	CUSTOMER	PREFERRED RESOLUTION	3.2.5	RESOLVE CONFLICTS
3.2	2	I	110	CREW	CREW ACTIVITY CONFLICTS	3.2.5	RESOLVE CONFLICTS
3.2	2	O	110	CREW	CREW PREFERENCES	3.2.5	RESOLVE CONFLICTS
3.3	2	I	102	OPERATOR	NOTICE OF UNSCHEDULED MODE CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.3	2	I	106	CUSTOMER	NOTICE OF UNSCHEDULED MODE CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.4	2	I	20	OMV,OTV, AND CONSTELLATION INTERFACES	VALID, EXECUTABLE OMV, OTV, AND CONSTELLATION COMMANDS	3.4.1	SEQUENCE PAYLOAD OPERATIONS
3.4	2	I	23	SPACE STATION PAYLOADS	VALID, EXECUTABLE STATION PAYLOAD COMMANDS	3.4.1	SEQUENCE PAYLOAD OPERATIONS
3.4	2	I	102	OPERATOR	SCHEDULED SYSTEM MODE CHANGE	3.4.3	COMMAND SCHEDULED MODE CHANGE
4.0	1	I	13	PAYLOADS, CONST. ELEMENTS	CORE AVIONICS DATA	4.1	OPERATE GN & C SYSTEM
4.0	1	O	13	PAYLOADS, CONST. ELEMENTS	AVIONICS SERVICES REQUESTS	4.4	PROVIDE CUSTOMER AVIONICS SERVICES
4.0	1	I	13	PAYLOADS, CONSTELLATION ELEMENTS	AVIONICS SERVICES	4.4	PROVIDE CUSTOMER AVIONICS SERVICES
4.0	1	I	102	OPERATOR	MESSAGES, PROCEDURES, REQUIRED TASKS	4.3	SUPPORT FLIGHT CREW ACTIVITIES
4.0	1	O	102	OPERATOR	CREW DATA REQUESTS, TASK SELECTIONS	4.3	SUPPORT FLIGHT CREW ACTIVITIES
4.0	1	I	102	OPERATOR	CORE SYSTEM STATUS, ALARMS	4.5	MONITOR AND STATUS SYSTEMS
4.0	1	I	106	CUSTOMER	CUSTOMER ALARMS, SYSTEM STATUS	4.5	MONITOR AND STATUS SYSTEMS
4.0	1	I	201	NON-GN & C CORE SYSTEM	NON-GN & C OPERATING COMMANDS	4.2	OPERATE NON-GN & C CORE SYSTEM
4.0	1	O	201	NON-GN & C CORE SYSTEM	SENSOR DATA	4.2	OPERATE NON-GN & C CORE SYSTEM
4.0	1	I	202	GN & C SYSTEM	GN & C OPERATING COMMANDS	4.1	OPERATE GN & C SYSTEM
4.0	1	O	202	GN & C SYSTEM	SENSOR DATA	4.1	OPERATE GN & C SYSTEM
4.1	2	I	102	OPERATOR	MANEUVER PLAN	4.1.2	GUIDANCE
4.1	2	O	102	OPERATOR	COLLISION AVOIDANCE	4.1.2	GUIDANCE
4.1	2	O	102	OPERATOR	MANEUVER CHANGE	4.1.4	TRAFFIC CONTROL
4.1	2	I	102	OPERATOR	COLLISION WARNING	4.1.4	TRAFFIC CONTROL
4.1	2	I	136	CONTROL MOMENT GYROS	TORQUE COMMAND	4.1.3	ATTITUDE CONTROL
4.1	2	I	138	REACTIONS CONTROL SYSTEM	THRUSTER COMMANDS	4.1.3	ATTITUDE CONTROL
4.1	2	O	165	RATE GYROS	ATTITUDE INCREMENT	4.1.1	NAVIGATION
4.1	2	O	165	RATE GYROS	ATTITUDE INCREMENTS	4.1.3	ATTITUDE CONTROL
4.1	2	O	166	GPS TRACKER	POSITION, RATE	4.1.1	NAVIGATION
4.1	2	O	166	GPS TRACKER	TIME, FREQUENCY REFERENCE	4.1.6	TIME AND FREQUENCY

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4.1	2	I	167	TIME, FREQUENCY SOURCES	TIME, FREQUENCY UPDATES	4.1.6	MANAGEMENT TIME AND FREQUENCY MANAGEMENT
4.1	2	O	168	NORAD	OBJECT STATES, ORBITS	4.1.5	TRACKING
4.1	2	I	169	TRACKING SENSORS	MODE, DIRECTION	4.1.5	TRACKING
4.1	1	O	169	TRACKING SENSORS	RANGE, RATE DIRECTION	4.1.5	TRACKING
4.1	2	I	170	CONSTELLATION INTERFACE	CO-FLYER MANEUVER COMMAND	4.1.4	TRAFFIC CONTROL
4.1	2	I	262	MAGNETIC TORQUERS	TORQUE COMMANDS	4.1.3	ATTITUDE CONTROL
4.1.1	3	O	165	RATE GYROS	ATTITUDE INCREMENT	4.1.1.4	ATTITUDE DETERMINATION
4.1.1	3	O	166	GPS TRACKER	POSITION, RATE	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION
4.1.1	3	O	172	TDRSS	SECOND SOURCE NAVIGATION STATE	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION
4.1.1	3	I	173	STAR TRACKER	STAR POINTING COORDINATES	4.1.1.4	ATTITUDE DETERMINATION
4.1.1	3	O	173	STAR TRACKER	STAR POINTING ERROR	4.1.1.4	ATTITUDE DETERMINATION
4.1.2	3	O	102	OPERATOR	COLLISION AVOIDANCE	4.1.2.3	COLLISION CHECK
4.1.2	3	I	102	OPERATOR	MANEUVER PLAN	4.1.2.3	COLLISION CHECK
4.1.2	3	I	179	TETHER SYSTEM	TETHER COMMANDS	4.1.2.5	TETHER CONTROL
4.1.2	3	O	179	TETHER SYSTEM	TETHER STATE	4.1.2.5	TETHER CONTROL
4.1.3	3	O	119	FLEXIBLE BODY MODE SENSORS	MODES, AMPLITUDES	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	I	136	CMG'S	TORQUE COMMAND	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	O	136	CMG'S	CMG STATUS	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	I	138	REACTION CONTROL SYSTEM	THRUSTER FIRING COMMANDS	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	O	138	REACTION CONTROL SYSTEM	RCS STATUS	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	O	165	RATE GYROS	ATTITUDE INCREMENTS	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	I	178	POINTING MOUNT	POINTING COMMAND	4.1.3.4	POINTING MOUNT CONTROL
4.1.3	3	O	178	POINTING MOUNT	GIMBAL POSITION	4.1.3.4	POINTING MOUNT CONTROL
4.1.3	3	O	261	MAGNETOMETERS	MAGNETIC FIELD	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	I	262	MAGNETIC TORQUER	TORQUE COMMAND	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	O	262	MAGNETIC TORQUERS	TORQUER STATUS	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.4	3	O	102	OPERATOR	MANEUVER CHANGE	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.4	3	I	102	OPERATOR	COLLISION WARNING	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.4	3	I	170	CONSTELLATION INTERFACE	COFLIER MANEUVER COMMAND	4.1.4.2	MANAGE CONSTELLATION ORBIT MANEUVERS
4.1.4	3	O	170	CONSTELLATION INTERFACE	COFLIER MANEUVER COMMAND	4.1.4.4	MANAGE RENDEZVOUS
4.1.5	3	O	168	NORAD	OBJECT STATE, ORBIT	4.1.5.3	OBJECT ACCOUNTING
4.1.5	3	O	180	LONG RANGE TRACKER	TRACKING STATUS	4.1.5.1	LONG RANGE OBJECT TRACKING
4.1.5	3	I	180	LONG RANGE TRACKER	SEARCH, POINTING REQUIREMENTS	4.1.5.1	LONG RANGE OBJECT TRACKING
4.1.5	3	O	180	LONG RANGE TRACKER	TRACKING DATA	4.1.5.4	TRACKING DATA CONDITIONING
4.1.5	3	O	181	PROXIMITY TRACKER	TRACKING STATUS	4.1.5.2	PROXMITY TRACKING

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4.1.5	3	I	181	PROXIMITY TRACKER	POINTING REQUIREMENTS	4.1.5.2	PROXIMITY TRACKING
4.1.5	3	O	181	PROXIMITY TRACKER	TRACKING DATA	4.1.5.4	TRACKING DATA CONDITIONING
4.1.6	3	O	166	GPS TRACKER	TIME REFERENCE	4.1.6.1	TIME-SOURCE MANAGEMENT
4.1.6	3	O	166	GPS TRACKER	FREQUENCY REFERENCE	4.1.6.3	FREQUENCY SOURCE MANAGEMENT
4.1.6	3	I	167	TIME,FREQUENCY SOURCES	TIME REFERENCE	4.1.6.1	TIME-SOURCE MANAGEMENT
4.1.6	3	I	167	TIME,FREQUENCY SOURCES	TIME, FREQUENCY UPDATES	4.1.6.2	TIME UPDATE
4.1.6	3	I	167	TIME,FREQUENCY SOURCES	FREQUENCY REFERENCE	4.1.6.3	FREQUENCY SOURCE MANAGEMENT
4.1.6	3	O	167	TIME,FREQUENCY SOURCES	STATUS	4.1.6.4	DEVICE MANAGEMENT
4.1.6	3	I	167	TIME,FREQUENCY SOURCES	ON, OFF RESET	4.1.6.4	DEVICE MANAGEMENT
4.2	2	I	182	THERMAL CONTROL SYSTEM	THERMAL CONTROL COMMANDS	4.2.2	OPERATE THERMAL CONTROL SYSTEM
4.2	2	O	182	THERMAL CONTROL SYSTEM	THERMAL SENSOR, EFFECTOR DATA	4.2.2	OPERATE THERMAL CONTROL SYSTEM
4.2	2	I	183	POWER SYSTEM	POWER CONTROL COMMANDS	4.2.1	OPERATE POWER SYSTEM
4.2	2	O	183	POWER SYSTEM	POWER SENSOR, EFFECTOR DATA	4.2.1	OPERATE POWER SYSTEM
4.2	2	O	184	ECLSS	ECLSS SENSOR, EFFECTOR DATA	4.2.4	ECLSS OPERATION
4.2	2	I	184	ECLSS	ECLSS CONTROL COMMANDS	4.2.4	ECLSS OPERATION
4.2	2	O	185	STRUCTURES SYSTEM	SENSOR MONITOR	4.2.3	STRUCTURES AND MECHANISM SUPPORT
4.2	2	I	186	MECHANISMS	CONTROL COMMANDS	4.2.3	STRUCTURES AND MECHANISM SUPPORT
4.2	1	O	186	MECHANISMS	MECHANISM SENSOR, EFFECTOR DATA	4.2.3	STRUCTURES AND MECHANISM SUPPORT
4.2	2	I	242	COMMUNICATION EQUIPMENT	MODE, POINT, OPERATION	4.2.5	COMMUNICATION SYSTEM
4.2	2	O	242	COMMUNICATION EQUIPMENT	COMMUNICATION EQUIPMENT SPARES	4.2.5	COMMUNICATIONS SYSTEM
4.2.1	3	I	102	OPERATOR	STATUS, ABNORMAL POWER CONDITION	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	102	OPERATOR	CONFIGURATION COMMANDS	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	I	102	OPERATOR	STATUS, ABNORMAL POWER CONDITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	102	OPERATOR	POWER SOURCE COMMANDS	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	188	ARRAY REGULATOR SYSTEM	ARRAY CURRENTS, VOLTAGES	4.2.1.1	EVALUATE ARRAY PERFORMANCE
4.2.1	3	O	188	ARRAY REGULATOR SYSTEM	ARRAY CURRENTS, VOLTAGES	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	188	ARRAY REGULATOR SYSTEM	REGULATOR SET POINTS	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	189	POWER SOURCE CONFIGURATION SWITCH GEAR	BUS LOADS, SWITCH STATUS	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	189	POWER SOURCE CONFIGURATION SWITCH GEAR	SOURCE SWITCH POSITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	190	ENERGY STORAGE UNITS	STORAGE STATUS, TEMPERATURE	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	190	ENERGY STORAGE UNITS	STORAGE OPERATING MODE	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	191	DISTRIBUTION/LOAD SWITCHES	SWITCH POSITION	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	191	DISTRIBUTION/LOAD SWITCHES	SWITCH STATUS, LOAD, CURRENTS, VOLTAGES	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	192	SOLAR ARRAY	MODE CONFIRMATION	4.2.1.4	ARRAY DEPLOYMENT
4.2.1	3	I	192	SOLAR ARRAY	DEPLOY, RETRACT	4.2.1.4	ARRAY DEPLOYMENT
4.2.2	3	I	102	OPERATOR	ABNORMAL THERMAL CONDITIONS	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	O	224	BUS AND RADIATOR FLUID	FLUID TEMPERATURE, PRESSURE,	4.2.2.1	MANAGE THERMAL LOAD

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				LOOPS	AND FLOW RATE		
4.2.2	3	O	224	BUS AND RADIATOR FLUID LOOPS	EQUIPMENT STATUS	4.2.2.2	DEVICE MANAGEMENT (EXPERT DMS)
4.2.2	3	I	225	BUS AND RADIATOR FLUID CONTROL	CONTROL PARAMETERS	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	O	225	BUS AND RADIATOR FLUID CONTROL	STATUS AND PERFORMANCE	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	O	226	PAYLOAD SIDE INTERFACE HEAT EXCHANGER	FLUID TEMPERATURE, PRESSURE, AND FLOW RATE	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	O	226	PAYLOAD SIDE INTERFACE HEAT EXCHANGERS	EQUIPMENT STATUS	4.2.2.2	THERMAL DEVICE MANAGEMENT
4.2.3	3	O	102	OPERATOR	MECHANISM RECONFIGURATION	4.2.3.1	MECHANISM CONTROL/SAFETY
4.2.3	3	I	102	OPERATOR	MECHANISM STATUS	4.2.3.1	MECHANISM CONTROL/SAFETY
4.2.3	3	O	102	OPERATOR	MRMS COMMANDS	4.2.3.2	MRMS OPERATION
4.2.3	3	I	102	OPERATOR	POSITION, STATUS, COMMAND DISPOSITION	4.2.3.2	MRM OPERATION
4.2.3	3	O	102	OPERATOR	MANEUVER COMMANDS	4.2.3.3	MANAGE BERTHING/DOCKING
4.2.3	3	I	102	OPERATOR	RELATIVE STATE, ATTITUDE PROPAGATION	4.2.3.3	MANAGE BERTHING/DOCKING
4.2.3	3	O	181	PROXIMITY TRACKER	RELATIVE STATE, ATTITUDE	4.2.3.3	MANAGE BERTHING/DOCKING
4.2.3	3	I	207	STRUCTURES/MECHANISMS SENSORS/EFFECTORS	RECONFIGURATION COMMANDS	4.2.3.1	MECHANISM CONTROL/SAFETY
4.2.3	3	O	207	STRUCTURES/MECHANISMS SENSOR/EFFECTORS	STRUCTURES MECHANISMS SENSOR DATA	4.2.3.1	MECHANISM CONTROL/SAFETY
4.2.3	3	O	208	MRMS	POSITION, STATUS	4.2.3.2	MRMS OPERATION
4.2.3	3	I	208	MRMS	MRMS CONTROL COMMAND	4.2.3.2	MRMS OPERATION
4.2.3	3	I	209	OBJECT/COFLIER	MANEUVER COMMANDS (IF COOPERATIVE)	4.2.3.3	MANAGE BERTHING/DOCKING
4.2.3	3	O	210	DOCKING PORT	VERIFIED DOCK	4.2.3.3	MANAGE BERTHING/DOCKING
4.2.3	3	I	210	DOCKING PORT	DOCKING PORT COMMANDS	4.2.3.3	MANAGE BERTHING/DOCKING
4.2.4	3	I	102	OPERATOR	COMPOSITION WARNING	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION
4.2.4	3	I	102	OPERATOR	POTABLE WATER SENSOR SYSTEM CONTAMINATION WARNING	4.2.4.3	POTABLE WATER MANAGEMENT
4.2.4	3	O	102	OPERATOR	POTABLE WATER SYSTEM CONFIGURATION	4.2.4.3	POTABLE WATER MANAGEMENT
4.2.4	3	I	102	OPERATOR	GREY WATER SYSTEM STATUS, CONTAMINATION WARNING	4.2.4.4	GREY WATER MANAGEMENT
4.2.4	3	O	102	OPERATOR	GREY WATER SYSTEM RECONFIGURATION	4.2.4.4	GREY WATER MANAGEMENT
4.2.4	3	I	145	ATMOSPERIC REVITALIZATION/TEMPERATURE CONTROL	REVITALIZATION FLOW CONTROL	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION
4.2.4	3	O	145	ATMOSPHERIC REVITALIZATION/TEMPERATURE CONTROL	OUTLET COMPOSITION	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSTION
4.2.4	3	O	145	ATMOSPHERIC REVITALIZATION/TEMPERATURE CONTROL	OUTLET TEMPERATURE	4.2.4.2	CONTROL TEMPERATURE HUMIDITY
4.2.4	3	I	145	ATMOSPHERIC REVITALIZATION/TEMPERATURE CONTROL	AIR, THERMAL FLUID FLOW CONTROL	4.2.4.2	CONTROL TEMPERATURE HUMIDITY
4.2.4	3	I	213	FIRE CONTROL SYSTEM	FIRE CONTROL SYSTEM OPERATION	4.2.4.5	FIRE DETECTION AND CONTROL
4.2.4	3	O	214	FIRE DETECTORS	FLAME, SMOKE DETECTION	4.2.4.5	FIRE DETECTION AND CONTROL
4.2.4	3	I	216	AIR MAKEUP	OXYGEN, NITROGEN FLOW CONTROL	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
4.2.4	3	O	217	CABIN PRESSURE SENSORS	PRESSURE	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION
4.2.4	3	I	218	POTABLE WATER SUPPLY SYSTEM	POTABLE WATER CONTROL	4.2.4.3	POTABLE WATER MANAGEMENT
4.2.4	3	O	218	POTABLE WATER SUPPLY SYSTEM	POTABLE WATER SENSOR DATA	4.2.4.3	POTABLE WATER MANAGEMENT
4.2.4	3	O	219	GREY WATER SYSTEM	GREY WATER SENSOR DATA	4.2.4.4	GREY WATER MANAGEMENT
4.2.4	3	I	219	GREY WATER SYSTEM	GREY WATER CONTROL	4.2.4.4	GREY WATER MANAGEMENT
4.2.4	3	I	220	AIR CIRCULATION SYSTEM	AIR CIRCULATION CONTROL	4.2.4.2	CONTROL TEMPERATURE HUMIDITY
4.2.4	3	O	221	HUMIDITY SENSORS	HUMIDITY	4.2.4.2	CONTROL TEMPERATURE HUMIDITY
4.2.4	3	O	222	TEMPERATURE AND COMPOSITION SENSORS	ATMOSPHERIC COMPOSITION TEMPERATURE	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION
4.2.4	3	O	222	TEMPERATURE AND COMPOSITION SENSORS	ATMOSPHERE TEMPERATURES	4.2.4.2	CONTROL TEMPERATURE HUMIDITY
4.2.4	3	O	223	AIR TOXICITY SENSORS	HAZARDOUS GAS, VAPOR	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION
4.2.4	3	O	246	CABIN OXYGEN LEVEL	PRESSURE	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION
4.2.5	3	I	242	COMMUNICATION EQUIPMENT	COMMUNICATION EQUIPMENT CONTROL SIGNALS	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5	3	O	242	COMMUNICATION EQUIPMENT	COMMUNICATION DETECTOR SIGNALS	4.2.5.3	COMMUNICATIN EQUIPMENT STATUS MONITORING
4.3	2	I	23	SPACE STATION PAYLOADS	AUTOMATIC EMERGENCY COMMANDS	4.3.2	SPACE STATION SAFETY
4.3	2	O	102	OPERATORS	ACTIVE EVA SUPPORT	4.3.4	EVA SUPPORT
4.3	2	I	102	OPERATORS	PROCEDURES	4.3.5	OPERATIONS AND PROCEDURES SUPPORT
4.3	2	I	110	CREW	DIAGNOSES, TREATMENT EXERCIZE PLAN	4.3.1	HEALTH MAINTENANCE
4.3	2	I	110	CREW	ALARMS WARNINGS	4.3.2	SPACE STATION SAFETY
4.3	2	O	110	CREW	PROTECTED CREW COMMUNICATIONS	4.3.3	HABITABILITY
4.3	2	I	110	CREW	PROTECTED CREW COMMUNICATIONS	4.3.3	HABITABILITY
4.3	2	O	111	PHYSIOLOGICAL MONITORS	HEALTH DATA	4.3.1	HEALTH MAINTENANCE
4.3	2	I	159	EVA CREW	EVA VISUAL DISPLAYS	4.3.4	EVA SUPPORT
4.3	2	O	159	EVA CREW	AIRLOCK COMMAND	4.3.4	EVA SUPPORT
4.3	2	O	160	MMU	MMU STATUS	4.3.4	EVA SUPPORT
4.3	2	O	161	EMU	EMU STATUS	4.3.4	EVA SUPPORT
4.3	2	I	211	AIRLOCK	AIRLOCK CONTROL	4.3.4	EVA SUPPORT
4.3.1	3	O	12	WASTE/BLOOD ANALYSERS	NUTRIENT CONTENT	4.3.1.4	NUTRITION ANALYSIS
4.3.1	3	O	12	WASTE/BLOOD ANALYSERS	NUTRIENT CONTENT	4.3.1.6	PHYSIOLOGICAL DATA TRANSFORMATION AND ANALYSIS
4.3.1	3	O	110	CREW	SYMPTOMS	4.3.1.2	MEDICAL DIAGNOSTICS SUPPORT
4.3.1	3	I	110	CREW	DIAGNOSES, SYMPTOM REQUESTS	4.3.1.2	MEDICAL DIAGNOSTICS SUPPORT
4.3.1	3	I	110	CREW	RECOMMENDED TREATMENT	4.3.1.3	TREATMENT SUPPORT
4.3.1	3	O	111	PHYSIOLOGICAL MONITORS	PHYSIOLOGICAL DATA	4.3.1.1	CREW PHYSIOLOGICAL MONITIORING
4.3.1	3	O	111	PHYSIOLOGICAL MONITORS	PHYSIOLOGICAL DATA	4.3.1.6	PHYSIOLOGICAL DATA TRANSFORMATION AND ANALYSIS
4.3.2	3	I	23	SPACE STATION PAYLOADS	AUTOMATIC EMERGENCY COMMANDS	4.3.2.3	AUTOMATIC CONTROL PROCESSING
4.3.2	3	I	110	CREW	ALARMS, ANNUNCIATIONS, ABNOR-	4.3.2.1	CAUTION AND WARNING

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
					MAL CONDITION DATA		
4.3.2	3	I	110	CREW	ABNORMAL AND EMERGENCY CREW PROCEDURES	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.3	3	I	110	CREW	RECREATION SERVICES	4.3.3.1	RECREATION SERVICES
4.3.3	3	O	110	CREW	PROTECTED CREW VOICE, VIDEO	4.3.3.2	CREW/GROUND COMMUNICATION
4.3.3	3	I	110	CREW	PROTECTED CREW VOICE, VIDEO	4.3.3.2	CREW/GROUND COMMUNICATION
4.3.4	3	I	102	OPERATORS	CONTAMINATION WARNING	4.3.4.1	EMU CONTAMINATION CONTROL
4.3.4	3	I	102	OPERATORS	INHIBITED OPERATIONS	4.3.4.4	SAFETY INTERLOCK MONITOR & CONTROL
4.3.4	3	O	102	OPERATORS	ACTIVE EVA	4.3.4.4	SAFETY INTERLOCK MONITOR & CONTROL
4.3.4	3	I	102	OPERATORS	EMU/MMU STATUS DISPLAYS	4.3.4.5	EVA REALTIME MONITOR & CONTROL
4.3.4	3	O	102	OPERATOR	PROCEDURE FILE SELECTION	4.3.4.6	EVA VISUAL INFORMATION
4.3.4	3	O	102	OPERATORS	PRESSURIZE/DEPRESSURIZE COMMAND	4.3.4.7	AIRLOCK ATMOSPHERIC PRESSURE & COMPOSITION CNTRL
4.3.4	3	I	102	OPERATORS	PARTIAL PRESSURE WARNING	4.3.4.7	AIRLOCK ATMOSPHERIC PRESSURE & COMPOSITION CNTRL
4.3.4	3	I	102	OPERATORS	EVA SUPPORT PROCEDURE	4.3.5	OPERATIONS & PROCEDURE SUPPORT
4.3.4	3	O	156	AIR TEMPERATURE & HUMIDITY SENSORS	ATMOSPHERIC TEMPERATURE & HUMIDITY IN AIRLOCK	4.3.4.8	AIRLOCK TEMPERATURE & HUMIDITY CONTROL
4.3.4	3	O	157	AIR PRESSURE & COMPOSITION SENSORS	ATMOSPHERIC PRESSURE & COMPOSITION IN AIRLOCK	4.3.4.7	AIRLOCK ATMOSPHERIC PRESSURE & COMPOSITION CNTRL
4.3.4	3	O	158	CONTAMINATION SENSORS IN AIRLOCK	CONTAMINATION PRESENT IN AIRLOCK	4.3.4.1	EMU CONTAMINATION CONTROL
4.3.4	3	I	159	EVA CREW	DECONTAMINATION INSTRUCTIONS	4.3.4.1	EMU CONTAMINATION
4.3.4	3	I	159	EVA CREW	VISUAL DISPLAY OF INSTRUCTIONS FOR EVA PROCEDURES	4.3.4.6	EVA VISUAL INFORMATION
4.3.4	3	O	159	EVA CREW	DISPLAY REQUEST	4.3.4.6	EVA VISUAL INFORMATION
4.3.4	3	O	159	EVA CREW	PRESSURIZE/DEPRESSURIZE COMMAND	4.3.4.7	AIRLOCK ATMOSPHERIC PRESSURE & COMPOSITION CNTRL
4.3.4	3	O	159	EVA CREW	COMMAND TO SET TEMPERATURE, HUMIDITY	4.3.4.8	AIRLOCK TEMPERATURE & HUMIDITY CONTROL
4.3.4	3	O	160	MMU	MMU DIAGNOSTICS	4.3.4.3	MMU MONITOR & MAINTENANCE
4.3.4	3	O	160	MMU	MMU STATUS	4.3.4.5	EVA REALTIME MONITOR & CONTROL
4.3.4	3	O	161	EMU	EMU DIAGNOSTICS	4.3.4.2	EMU MONITOR & MAINTENANCE
4.3.4	3	O	161	EMU	EMU STATUS	4.3.4.5	EVA REALTIME MONITOR & CONTROL
4.3.4	3	I	162	AIRLOCK ATMOSPHERE CONTROL	OXYGEN, NITROGEN FLOW CONTROL	4.3.4.7	AIRLOCK ATMOSPHERIC PRESSURE & COMPOSITION CNTRL
4.3.4	3	I	162	AIRLOCK ATMOSPHERE CONTROL	TEMPERATURE & HUMIDITY STATUS DISPLAYS	4.3.4.8	AIRLOCK TEMPERATURE & HUMIDITY CONTROL
4.3.5	3	I	2	ONBOARD CUSTOMER/OPERATOR	DISPLAYS	4.3.5.3	GENERAL DATA PROCESSING SUPPORT
4.3.5	3	O	2	ONBOARD CUSTOMER/OPERATOR	DATA SUPPORT REQUEST	4.3.5.3	GENERAL DATA PROCESSING SUPPORT
4.3.5	3	O	2	ONBOARD CUSTOMER/OPERATOR	PROGRAMS, REVISIONS	4.3.5.4	GENERAL PURPOSE PROGRAMMING LANGUAGE
4.3.5	3	I	2	ONBOARD CUSTOMER/OPERATOR	DISPLAYS, PROGRAM AIDS	4.3.5.4	GENERAL PURPOSE PROGRAMMING LANGUAGE
4.3.5	3	I	23	SPACE STATION PAYLOAD	CUSTOMER OPERATIONS SOFTWARE	4.3.5.4	GENERAL PURPOSE PROGRAMMING LANGUAGE

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
4.3.5	3	I	102	OPERATORS	SPACE STATION, PAYLOAD MAINTENANCE AND REPAIR PROCEDURES	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES
4.3.5	3	I	102	OPERATORS	SPACE STATION OPERATIONS PROCEDURES	4.3.5.2	OPERATIONS PROCEDURES
4.3.5	3	O	102	OPERATOR	PROGRAM LOAD COMMANDS	4.3.5.5	UPDATE SYSTEM SOFTWARE
4.3.5	3	I	102	OPERATOR	SOFTWARE TEST STATUS	4.3.5.5	UPDATE SYSTEM SOFTWARE
4.3.5	3	I	127	FLIGHT DATA PROCESSING EQUIPMENT	REVISED PROGRAM LOADS	4.3.5.5	UPDATE SYSTEM SOFTWARE
4.3.5	3	I	170	CONSTELLATION INTERFACE	CUSTOMER OPERATIONS SOFTWARE	4.3.5.4	GENERAL PURPOSE PROGRAMMING LANGUAGE
4.4	2	O	1	CUSTOMER/OPERATOR	INSTRUMENT OFFSET, TARGET SELECTION	4.4.1	GN & C SERVICES
4.4	2	I	23	SPACE STATION PAYLOAD	COORDINATES, MAGNETIC FIELDS	4.4.1	GN & C SERVICES
4.4	2	I	170	CONSTELLATION INTERFACE	RANGE, RATE OBJECT STATE	4.4.3	TRACKING SERVICES
4.4	2	O	173	STAR TRACKER	STAR COORDINATES	4.4.1	GN & C SERVICES
4.4	2	O	261	MAGNETOMETERS	MAGNETIC FIELD	4.4.2	ENVIRONMENT MONITOR
4.4	2	I	264	PALLET	POINTER COMMANDS	4.4.1	GN & C SERVICES
4.4	2	O	266	ENVIRONMENT MONITOR SENSORS	MONITOR CONDITIONS	4.4.2	ENVIRONMENT MONITOR
4.4	2	O	272	ALIGHMENT SENSORS	DISPLACEMENT	4.4.1	GN & C SERVICES
4.4.1	3	O	1	CUSTOMER/OPERATOR	INSTRUMENT OFFSET	4.4.1.1	GROUND TRACK DETERMINATION
4.4.1	3	O	1	CUSTOMER/OPERATOR	TARGET SELECTION	4.4.1.3	PALLET COARSE POINTING
4.4.1	3	I	23	SPACE STATION PAYLOADS	SUBSATELLITE COORDINATES, POINTING COORDINATES, RATES	4.4.1.1	GROUND TRACK DETERMINATION
4.4.1	3	I	23	SPACE STATION PAYLOADS	MAGNETIC FIELD	4.4.1.2	MAGNETIC FIELD DETERMINATION
4.4.1	3	I	23	SPACE STATION PAYLOADS	ALIGNMENT REFERENCE	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.4.1	3	O	173	STAR TRACKER	STAR COORDINATES	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.4.1	3	I	264	PALLET	POINTING COMMANDS	4.4.1.3	PALLET COARSE POINTING
4.4.1	3	O	272	ALIGNMENT SENSORS	DISPLACEMENT	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.5	2	I	1	CUSTOMER/OPERATOR	PAYLOAD SYSTEM STATUS	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS
4.5	2	I	32	CORE OPERATOR	CORE SYSTEM STATUS	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5	2	I	33	GROUND OPERATOR	DIAGNOSTICS MESSAGES	4.5.4	DIAGNOSTICS SUPPORT
4.5	2	I	102	OPERATOR	DIAGNOSTICS MESSAGES	4.5.4	DIAGNOSTICS SUPPORT
4.5.4	3	I	2	ONBOARD OPERATOR	DIAGNOSTIC MESSAGES	4.5.4.1	FAULT ANALYSIS
4.5.4	3	I	2	ONBOARD OPERATOR	FAULTS CORRECTION SIMULATION RESULTS	4.5.4.2	FAULT CORRECTION
4.5.4	3	O	2	ONBOARD OPERATOR	PROPOSED FAULT CORRECTION	4.5.4.2	FAULT CORRECTION
4.5.4	3	O	2	ONBOARD OPERATOR	ELEMENTS TO BE ANALYZED	4.5.4.3	TREND ANALYSIS
4.5.4	3	I	2	ONBOARD OPERATOR	TREND ANALYSIS RESULTS	4.5.4.3	TREND ANALYSIS
4.5.4	3	I	33	GROUND OPERATOR	DIAGNOSTICS MESSAGES	4.5.4.1	FAULT ANALYSIS
4.5.4	3	O	33	GROUND OPERATOR	PROPOSED FAULT CORRECTION	4.5.4.2	FAULT CORRECTION
4.5.4	3	I	33	GROUND OPERATOR	FAULTS CORRECTION SIMULATION RESULTS	4.5.4.2	FAULT CORRECTION
4.5.4	3	O	33	GROUND OPERATOR	ELEMENTS TO BE ANALYZED	4.5.4.3	TREND ANALYSIS
4.5.4	3	I	33	GROUND OPERATOR	TREND ANALYSIS RESULTS	4.5.4.3	TREND ANALYSIS
5.0	1	O	63	DEVELOPMENT COMMUNICATION INTERFACE	NEW SOFTWARE DATABASE	5.1	MANAGE FLIGHT SYSTEM FACILITIES

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
5.0	1	O	63	DEVELOPMENT COMMUNICATION INTERFACE	NEW SOFTWARE DATABASE	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	O	92	NETWORK CONTROL	NETWORK, TDRSS SCHEDULE	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	I	92	NETWORK CONTROL	SCHEDULE REQUESTS	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	I	127	FLIGHT DATA PROCESSING EQUIPMENT	RECONFIGURE	5.1	MANAGE FLIGHT SYSTEM FACILITIES
5.0	1	I	129	SSCC DATA PROCESSING EQUIPMENT	RECONFIGURE	5.2	MAANGE GROUND SYSTEM FACILITIES
5.2	2	O	63	DEVELOPMENT COMMUNICATION INTERFACE	NEW SOFTWARE DATABASE	5.2.1	INTERFACE MANAGEMENT
5.2	2	I	92	NETWORK CONTROL CENTER	NETWORK TDRSS SCHEDULE	5.2.1	INTERFACE MANAGEMENT
5.2	2	O	92	NETWORK CONTROL	NETWORK TDRSS SCHEDULE	5.2.1	INTERFACE MANAGEMENT
5.2	2	I	102	OPERATOR	CONFIGURATION STATUS, USAGE	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
5.2	2	O	102	OPERATOR	CONFIGURATION STATUS, USAGE	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
5.2	2	I	106	CUSTOMER	CONFIGURATION STATUS, USAGE	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
5.2	2	O	106	CUSTOMER	CONFIGURATION STATUS, USAGE	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
5.2	2	I	129	GROUND DATA PROCESSING EQUIPMENT		5.2.1	INTERFACE MANAGEMENT
5.2	2	O	129	GROUND DATA PROCESSING EQUIPMENT		5.2.4	GROUND STATUS DATABASE MANAGEMENT
6.0	1	O	1	CUSTOMER/OPERATOR	OPERATOR RESPONSES	6.8	CONDUCT TRAINING
6.0	1	I	1	CUSTOMER/OPERATOR	EXERCISE PROMPTS, SYSTEM REACTIONS	6.8	CONDUCT TRAINING
6.0	1	I	63	DEVELOPMENT COMMUNICATION INTERFACE	SIMULATED SPACE STATION COMM. NEW SOFTWARE DATA	6.3	SIMULATE SPACE STATION SYSTEM COMM. ELEMENTS
6.0	1	O	63	DEVELOPMENT COMMUNICATION INTERFACE	RECEIVED COMMANDS, PAYLOAD DATA, CORE DATA	6.3	SIMULATE SPACE STATION SYSTEM COMM. ELEMENTS
6.0	1	I	65	CUSTOMER, OPERATOR, CONTRACTOR	CAPABILITIES	6.1	INTERPRET
6.0	1	O	65	CUSTOMER, OPERATOR, CONTRACTOR	MODEL REQUIREMENTS	6.1	INTERPRET MODEL REQUESTS
6.0	1	I	65	CUSTOMER, OPERATOR, CONTRACTOR	COMMUNICATION DATA, SIMULATION MONITOR	6.3	SIMULATE SPACE STATION SYSTEM COMM. ELEMENTS
6.0	1	O	65	CUSTOMER, OPERATER, CONTRACTOR	OPERATOR COMMANDS	6.5	SIMULATE SPACE STATION ELEMENTS
6.0	1	I	65	CUSTOMER, OPERATOR, CONTRACTOR	PROCEDURES, SIMULATION MONITOR, H/W,S/W, DATA	6.5	SIMULATE SPACE STATION ELEMENTS
6.0	1	I	65	CUSTOMER, OPERATOR, CONTRACTOR	PROCEDURES, SIMULATION MONITOR, H/W, S/W, DATA	6.7	SIMULATE SPACE STATION PROCESSORS
6.0	1	O	65	CUSTOMER, OPERATOR, CONTRACTOR	MODEL, SOFTWARE ENTRIES	6.9	SOFTWARE DEVELOPMENT FUNCTION
6.0	1	I	65	CUSTOMER, OPERATOR, CONTRACTOR	SOFTWARE DIAGNOSIS MODEL STATUS	6.9	SOFTWARE DEVELOPMENT FUNCTION
6.0	1	O	78	ONSITE CUSTOMER, CONTRACTOR HARDWARE	PAYLOAD, EQUIPMENT DATA	6.5	SIMULATE SPACE STATION ELEMENTS
6.0	1	I	78	ONSITE CUSTOMER, CONTRACTOR HARDWARE	HARDWARE COMMANDS, ANCILLARY DATA	6.5	SIMULATE SPACE STATION ELEMENTS
6.0	1	I	79	OFF SITE CUSTOMER, CON-	INTEGRATION MODEL	6.5	SIMULATE SPACE SYSTEM

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
				TRACTOR SYSTEM			ELEMENTS
6.0	1	I	268	TRAINING INSTRUCTOR	TRAINING EXERCISE OBJECTIVE	6.8	CONDUCT TRAINING
6.0	1	O	268	TRAINING INSTRUCTOR	TRAINING PARAMETERS	6.8	CONDUCT TRAINING
6.8	2	O	1	CUSTOMER/OPERATOR	OBJECTIVES IDENTIFICATION	6.8.1	DEFINE TRAINING PLAN
6.8	2	I	1	CUSTOMER/OPERATOR	EXERCISE PROMPTS, SYSTEM REACTION	6.8.5	CONDUCT TRAINING EXERCISE
6.8	2	O	1	CUSTOMER/OPERATOR	OPERATOR RESPONSES	6.8.5	CONDUCT TRAINING EXERCISE
6.8	2	I	1	CUSTOMER/OPERATOR	OPERATOR PERFORMANCE EVALUATION	6.8.6	EVALUATE OPERATOR PERFORMANCE
6.8	2	I	268	TRAINING INSTRUCTOR	TRAINING EXERCISE OBJECTIVE	6.8.1	DEFINE TRAINING PLAN
6.8	2	O	268	TRAINING INSTRUCTOR	TRAINING PARAMETERS	6.8.2	DEFINE TRAINING SCRIPT
6.9	2	I	65	CUSTOMER, OPERATOR, CONTRACTOR	RELEASE DELIVERABLE CONTROL INSTRUCTION	6.9.1	CONFIGURATION CONTROL AND MANAGEMENT SUPPORT
6.9	2	O	65	CUSTOMER, OPERATOR, CONTRACTOR	DETAILED SCHEDULE, STATUS, AND ETC.	6.9.1	CONFIGURATION CONTROL AND MANAGEMENT SUPPORT
6.9	2	O	65	CUSTOMER, OPERATOR, CONTRACTOR	REQUIREMENT UPDATES	6.9.2	REQUIREMENT ANALYSIS AND GENERATION TOOLS
6.9	2	I	65	CUSTOMER, OPERATOR, CON-	REQUIREMENTS UPDATES	6.9.2	REQUIREMENT ANALYSIS AND GENERATION TOOLS
6.9	2	I	65	CUSTOMER, OPERATOR, CONTRACTOR	FUNCTIONAL DESIGN, DETAILED DESIGN, CODE	6.9.3	DESIGN & CODE GENERATION
6.9	2	O	65	CUSTOMER, OPERATOR, CONTRACTOR	FUNCTIONAL DESIGN, DETAILED DESIGN, CODE	6.9.3	DESIGN & CODE GENERATION
6.9	2	I	65	CUSTOMER, OPERATOR, CONTRACTOR	MODEL STATUS	6.9.4	BUILD & DELIVERY
6.9	2	O	65	CUSTOMER, OPERATOR, CONTRACTOR	MODEL ENTRIES	6.9.4	BUILD & DELIVERY
6.9	2	O	65	CUSTOMER, OPERATOR, CONTRACTOR	TEST PARAMETERS	6.9.5	TESTING AND ANALYSIS
6.9	2	I	65	CUSTOMER, OPERATOR CONTRACTOR	TEST RESULTS	6.9.5	TESTING AND ANALYSIS
6.9	2	I	65	CUSTOMER, OPERATOR CONTRACTOR	TEST DOCUMENTS, INSTRUCTION MANUALS	6.9.6	DOCUMENTATION
6.9	2	O	65	CUSTOMER, OPERATOR, CONTRACTOR	MEMOS, PGW DOCUMENT, USER'S GUIDES, PROCEDURES	6.9.6	DOCUMENTATION
6.9	2	I	65	CUSTOMER, OPERATOR, CONTRACTOR		6.9.7	COMMUNICATION
6.9	2	O	65	CUSTOMER, OPERATOR, CONTRACTOR		6.9.7	COMMUNICATION
6.9	2	O	65	CUSTOMER, OPERATOR, CONTRACTOR	RECONFIGURATION DATA	6.9.8	RECONFIGURATION DATA MANAGEMENT
6.9	2	I	112	THIS		6.9.7	COMMUNICATION
6.9	2	O	112	THIS		6.9.7	COMMUNICATION
6.9	2	I	248	NASA APPROVAL BOARD	RELEASE DEFINITION CONTROL INSTRUCTION	6.9.1	CONFIGURATION CONTROL AND MANAGEMENT SUPPORT
6.9	2	O	248	NASA APPROVAL BOARD	SCHEDULES, APPROVALS	6.9.1	CONFIGURATION CONTROL AND MANAGEMENT SUPPORT
7.0	1	I	3	LOGISTICS OPERATOR	CHANGES REQUIRED	7.1	MAINTAIN INTEGRATED LOGISTICS PLAN
7.0	1	O	3	LOGISTICS OPERATOR	PLAN UPDATES	7.1	MAINTAIN INTEGRATED LOGISTICS PLAN
7.0	1	I	3	LOGISTICS OPERATOR	RECOMMENDED CHANGES	7.3	MAINTAIN TECHNICAL DOCUMENTATION
7.0	1	O	102	OPERATOR	CHANGES, REQUESTS	7.3	MAINTAIN TECHNICAL

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
7.0	1	I	102	OPERATOR	INVENTORY REPORTS	7.4	DOCUMENTATION CONTROL INVENTORIES
7.0	1	I	106	CUSTOMER	SYSTEM USAGE HISTORY	7.2	LOG CUSTOMER USAGE OF SYSTEM
7.0	1	I	106	CUSTOMER	INVENTORY REPORTS	7.4	CONTROL INVENTORIES
7.0	1	O	112	TMIS	PROGRAM PLANS	7.1	MAINTAIN INTEGRATED LOGISTICS PLAN
7.0	1	I	112	TMIS	CHARGEABLE SPACE STATION SYSTEM USAGE	7.2	LOG CUSTOMER USAGE OF SYSTEM
7.0	1	O	112	TMIS	PROGRAM PLANS	7.3	MAINTAIN TECHNICAL DOCUMENTATION
7.0	1	O	112	TMIS	PROGRAM PLANS	7.4	CONTROL INVENTORIES
7.0	1	O	112	TMIS	PAYLOAD, CORE UPGRADES	7.5	CONFIGURATION MANAGEMENT
7.1	2	I	3	LOGISTICS OPERATOR	ANOMALLIES, CHANGES REQUIRED	7.1.1	ANALYZE SYSTEM PERFORM-ANCE
7.1	2	O	3	LOGISTICS OPERATOR	CHANGES, PLAN UPDATES	7.1.2	DETERMINE EFFECTS ON INTEGRATED PLAN
7.1	2	I	3	LOGISTICS OPERATOR	CHANGE EFFECTS	7.1.2	DETERMINE EFFECTS ON INTEGRATED PLAN
7.1	2	O	3	LOGISTICS OPERATOR	EFFECTS TO BE ANALYZED	7.1.3	ANALYZE AFFECTED PLANS
7.1	2	I	3	LOGISTICS OPERATOR	LOGISTICS ANALYSIS	7.1.3	ANALYZE AFFECTED PLANS
7.1	2	I	3	LOGISTICS OPERATOR	CHANGES REQUIRED	7.1.4	ANALYZE IMPACT OF PROGRAM CHANGES
7.1	2	O	112	TMIS	PROGRAM PLANS, CHANGES	7.1.4	ANALYZE IMPACT OF PROGRAM CHANGES
7.3	2	I	3	LOGISTICS OPERATOR	RECOMMENDED CHANGES, IMPACTS	7.3.1	ANALYZE SYSTEM OPERATION
7.3	2	O	3	LOGISTICS OPERATOR	DOCUMENT CHANGES	7.3.2	UPDATE TECHNICAL DOCU-MENTS
7.3	2	I	3	LOGISTICS OPERATOR	REQUIRED CHANGES	7.3.3	ANALYZE PROGRAM CHANGES
7.3	2	O	102	OPERATOR	RECOMMENDED CHANGES	7.3.1	ANALYZE SYSTEM OPERATION
7.3	2	O	102	OPERATOR	PROCEDURE REQUESTS	7.3.4	TRANSMIT PROCEDURES
7.3	2	O	112	TMIS	PROGRAM PLANS, CHANGES	7.3.3	ANALYZE PROGRAM CHANGES
7.4	2	I	33	GROUND OPERATORS	GROUND FACILITY INVENTORY REPORTS	7.4.3	MONITOR GROUND FACILITY INVENTORIES
7.4	2	I	102	OPERATOR	STATION INVENTORY REPORTS	7.4.2	MONITOR STATION INVENT-ORIES
7.4	2	I	106	CUSTOMER	CUSTOMER INVENTORY REPORTS	7.4.1	MONITOR CUSTOMER, INVENTORIES
7.4	2	O	112	TMIS	NEW STATION INVENTORY	7.4.2	MONITOR STATION INVENT-ORIES
7.4	2	O	250	NSTS MISSION CONTROL	NSTS MANIFESTS	7.4.1	MONITOR CUSTOMER INVENT-ORIES
7.4	2	O	250	NSTS MISSION CONTROL	NSTS MANIFESTS	7.4.2	MONITOR STATION INVENT-ORIES

Total Number Of Records: 485

E.3P External to Process Data Flows (Platform)

Data flows between external agencies and processes are an indication of the degree of involvement of the external agencies in the operation of the system.

This section shows the data flows between external and processes, organized by external agency. These flows may also be correlated with the input/output data in the functional data base to show amonts of data transferred and interval.

The column entries are:

- Fun. No. - The data flow diagram on which the data flow appears
- Level - The data flow diagram level
- IO Mode - Whether the data flow is input to (I) or output from (O) the external
- Ex Source - Code number of the external data that some of the names will have alight variations of aliases, identifiable as such by the code number
- Ex Source Name - Name of external source
- Data Flow Message - Name of data flow
- Process No - Source or destination process number
- Process Name - Source or destination process name

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
1.0	1	O	7	CORE SYSTEMS	CORE REALTIME DATA	1.1	MANAGE REALTIME DATA RETURN
1.0	1	O	23	SPACE STATION PAYLOADS	PAYLOAD REALTIME DATA	1.1	MANAGE REALTIME DATA RETURN
1.0	1	I	27	GROUND CUSTOMERS	PAYLOAD DATA	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	I	28	CUSTOMER RDC'S (NON-SSDS SSIS/SCS)	PAYLOAD DATA	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	O	30	ENGINEERING DATA CENTER	ADDITIONAL ANCILLARY DATA	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	I	30	ENGINEERING DATA CENTER	CORE ARCHIVE DATA	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	I	33	GROUND OPERATORS	CORE DATA	1.5	MANAGE DELIVERABLE CORE DATA
1.1	2	O	7	CORE SYSTEMS	CORE REALTIME DATA	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	23	PLATFORM PAYLOADS	PAYLOAD REALTIME DATA	1.1.1	ACQUIRE REALTIME DATA
1.2	2	O	23	PLATFORM PAYLOADS	PLATFORM DELAYABLE PAYLOAD DATA	1.2.1	CAPTURE DELAYED PAYLOAD DATA
1.5	2	O	102	OPERATORS	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.4	DISPLAYS AND CONTROLS
1.5	2	I	102	OPERATORS	CORE DISPLAYS	1.5.4	DISPLAYS AND CONTROLS
1.5	2	I	102	OPERATOR	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.4	DISPLAYS AND CONTROLS
1.5	2	O	102	OPERATOR	CONTROL	1.5.4	DISPLAYS AND CONTROLS
1.5	2	I	102	OPERATORS	CORE ACCOUNT DATA	1.5.6	CORE DATA ACCOUNTING
1.5	2	O	102	OPERATORS	PURGE,RETRIEVE REQUESTS	1.5.6	CORE DATA ACCOUNTING
2.0	1	I	23	PLATFORM PAYLOADS	VALID PAYLOAD DATA	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.0	1	I	23	PLATFORM PAYLOADS	VALID REALTIME COMMANDS	2.2	CHECK PLATFORM COMMAND RESTRICTION/CONSTRAINT
2.0	1	I	23	PLATFORM PAYLOADS	ANCILLARY DATA	2.4	PROVIDE ANCILLARY DATA
2.0	1	I	23	PLATFORM PAYLOADS	PAYLOAD OPERATING COMMANDS DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	O	23	PLATFORM PAYLOADS	CUSTOMER SYSTEM OPERATIONS DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	I	32	CORE OPERATOR	DISPOSITION	2.3	VALIDATE CORE COMMANDS
2.0	1	O	32	CORE OPERATOR	CORE COMMANDS/DATA	2.3	VALIDATE CORE COMMANDS/ DATA
2.0	1	O	106	CUSTOMERS	VEHICLE & PAYLOAD COMMANDS/ DATA	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.0	1	I	106	CUSTOMERS	DISPOSITION	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.3	2	I	102	OPERATOR	DISPOSITION	2.3.1	AUTHORIZE OPERATOR
2.3	2	O	102	OPERATOR	OPERATOR LOG-ON	2.3.1	AUTHORIZE OPERATOR
2.3	2	I	102	OPERATOR	DISPOSITION	2.3.2	AUTHORIZE OPERATION
2.3	2	O	102	OPERATOR	CORE COMMANDS/DATA	2.3.2	AUTHORIZE OPERATION
2.5	2	O	1	CUSTOMERS/OPERATORS	(SEE 2.0 FOR COMMAND PATH)	2.2	CHECK PLATFORM P/L CMD RESTRICTION/CONSTRAINT
2.5	2	I	23	PLATFORM PAYLOADS	PROCESSED PLATFORM PAYLOAD DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	O	23	PLATFORM PAYLOADS	PLATFORM PAYLOAD OPERATING DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	I	23	PLATFORM PAYLOADS	EXECUTABLE CONSTELLATION PAYLOAD COMMANDS	2.5.2	CUSTOMER PAYLOAD OPERATIONS

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
3.0	1	O	1	CUSTOMERS/OPERATORS	OPERATIONS CHARACTERISTICS	3.1	DEVELOP RECURRING OPERATIONS MASTERS
3.0	1	I	1	CUSTOMER/OPERATOR	APPARENT CONFLICTS, POSSIBLE RESOLUTIONS	3.1	RECURRING OPERATIONS MASTERS
3.0	1	I	1	CUSTOMERS/OPERATORS	RESOURCE AVAIL.,UTILIZ.,INTER-FERENCES POSSIBLE RESOLUTION	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	O	1	CUSTOMERS/OPERATORS	SCHEDULE CONFIRMATION CHANGE REQUESTS	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	I	23	PLATFORM PAYLOADS	VALID, EXECUTABLE PAYLOAD COMMANDS	3.4	SEQUENCE OPERATIONS
3.0	1	I	92	NETWORK CONTROL	COMMUNICATION NEEDS	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	O	92	NETWORK CONTROL	COMMUNICATION SCHEDULE	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	O	250	NSTS MISSION CONTROL	NSTS SCHEDULES, MANIFESTS	3.1	RECURRING OPERATIONS MASTERS
3.1	2	O	102	OPERATOR	PLATFORM OPERATIONS CHARACTERISTICS	3.1.2	DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS
3.1	2	I	102	OPERATOR	POTENTIAL CONFLICTS, DETAILS	3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1	2	O	102	OPERATOR	CONFIRMED RESTRICTIONS, CONSTRAINTS	3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1	2	O	102	OPERATOR	MAJOR EVENT SPACE STATION OPERATIONS CHARACTERISTICS	3.1.4	DEVELOP MAJOR EVENT OPERATIONS
3.1	2	O	106	CUSTOMER	PAYLOAD OPERATIONS CHARACTER-ISTICS	3.1.1	DEVELOP NORMAL DAY PAYLOAD OPERATIONS
3.1	2	O	106	CUSTOMER	CONFIRMED RESTRICTIONS/ CONSTRAINTS	3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1	2	I	106	CUSTOMER	POTENTIAL CONFLICTS, DETAILS	3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1	2	O	106	CUSTOMER	MAJOR EVENT PAYLOAD CHARACTERISTICS	3.1.4	DEVELOP MAJOR EVENT OPERATIONS
3.1	2	O	250	NSTS MISSION CONTROL	NSTS SCHEDULES, MANIFESTS	3.1.4	DEVELOP MAJOR EVENT OPERATIONS
3.2	2	O	33	GROUND OPERATOR	NEW CORE OPERATIONS	3.2.2	INCORPERATE NEW/REVISED OPERATIONS
3.2	2	O	33	GROUND OPERATOR	RESOLUTION	3.2.5	RESOLVE CONFLICTS
3.2	2	I	33	GROUND OPERATOR	RESOURCE AVAIL.,UTILIZ.,INTER-FERENCES POSSIBLE RESOLUTION	3.2.5	RESOLVE CONFLICTS
3.2	2	I	92	NETWORK CONTROL	COMMUNICATIONS NEEDS	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	92	NETWORK CONTROL	COMMUNICATION SCHEDULES	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	102	OPERATOR	SCHEDULE CONFIRMINATION, CORE CHANGE REQUESTS	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	I	102	OPERATOR	BASELINE SCHEDULES	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	I	106	CUSTOMER	BASELINE SCHEDULES	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	106	CUSTOMER	SCHEDULE CONFIRMATION, PAYLOAD CHANGE REQUEST	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	106	CUSTOMER	NEW PAYLOAD OPERATIONS	3.2.2	INCORPERATE NEW/REVISED OPERATIONS
3.2	2	I	106	CUSTOMER	RESOURCE,AVAIL.,UTILIZ.,	3.2.5	RESOLVE CONFLICTS

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
					INTERFER.,POSSIBLE RESOLUTIONS		
3.2	2	O	106	CUSTOMER	PREFERRED RESOLUTION	3.2.5	RESOLVE CONFLICTS
3.3	2	I	102	OPERATOR	NOTICE OF UNSCHEDULED MODE CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.3	2	I	106	CUSTOMER	NOTICE OF UNSCHEDULED MODE CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.4	2	I	23	PLATFORM PAYLOADS	VALID, EXECUTABLE PLATFORM PAYLOAD COMMANDS	3.4.1	SEQUENCE PAYLOAD OPERATIONS
3.4	2	I	102	OPERATOR	SCHEDULED SYSTEM MODE CHANGE	3.4.3	COMMAND SCHEDULED MODE CHANGE
4.0	1	I	13	PAYLOADS, CONST. ELEMENTS	CORE AVIONICS DATA	4.1	OPERATE GN & C SYSTEM
4.0	1	O	13	PAYLOADS, CONST. ELEMENTS	AVIONICS SERVICES REQUESTS	4.4	PROVIDE CUSTOMER AVIONICS SERVICES
4.0	1	I	13	PAYLOADS, CONSTELLATION ELEMENTS	AVIONICS SERVICES	4.4	PROVIDE CUSTOMER AVIONICS SERVICES
4.0	1	I	102	OPERATOR	CORE SYSTEM STATUS, ALARMS	4.5	MONITOR AND STATUS SYSTEMS
4.0	1	I	106	CUSTOMER	CUSTOMER ALARMS, SYSTEM STATUS	4.5	MONITOR AND STATUS SYSTEMS
4.0	1	O	201	NON-GN & C CORE SYSTEM	SENSOR DATA	4.2	OPERATE NON-GN & C CORE SYSTEM
4.0	1	I	201	NON-GN & C CORE SYSTEM	NON-GN & C OPERATING COMMANDS	4.2	OPERATE NON-GN & C CORE SYSTEM
4.0	1	O	202	GN & C SYSTEM	SENSOR DATA	4.1	OPERATE GN & C SYSTEM
4.0	1	I	202	GN & C SYSTEM	GN & C OPERATING COMMANDS	4.1	OPERATE GN & C SYSTEM
4.1	2	O	102	OPERATOR	COLLISION AVOIDANCE	4.1.2	GUIDANCE
4.1	2	I	102	OPERATOR	MANEUVER PLAN	4.1.2	GUIDANCE
4.1	2	O	102	OPERATOR	MANEUVER CHANGE	4.1.4	TRAFFIC CONTROL
4.1	2	I	102	OPERATOR	COLLISION WARNING	4.1.4	TRAFFIC CONTROL
4.1	2	I	136	CONTROL MOMENT GYROS	TORQUE COMMAND	4.1.3	ATTITUDE CONTROL
4.1	2	I	138	REACTIONS CONTROL SYSTEM	THRUSTER COMMANDS	4.1.3	ATTITUDE CONTROL
4.1	2	O	165	RATE GYROS	ATTITUDE INCREMENT	4.1.1	NAVIGATION
4.1	2	O	165	RATE GYROS	ATTITUDE INCREMENTS	4.1.3	ATTITUDE CONTROL
4.1	2	O	166	GPS TRACKER	POSITION, RATE	4.1.1	NAVIGATION
4.1	2	O	166	GPS TRACKER	TIME, FREQUENCY REFERENCE	4.1.6	TIME AND FREQUENCY MANAGEMENT
4.1	2	I	167	TIME, FREQUENCY SOURCES	TIME, FREQUENCY UPDATES	4.1.6	TIME AND FREQUENCY MANAGEMENT
4.1	2	O	168	NORAD	OBJECT STATES, ORBITS	4.1.5	TRACKING
4.1	2	I	169	TRACKING SENSORS	MODE, DIRECTION	4.1.5	TRACKING
4.1	1	O	169	TRACKING SENSORS	RANGE, RATE DIRECTION	4.1.5	TRACKING
4.1	2	I	170	CONSTELLATION INTERFACE	CO-FLYER MANEUVER COMMAND	4.1.4	TRAFFIC CONTROL
4.1	2	I	262	MAGNETIC TORQUERS	TORQUE COMMANDS	4.1.3	ATTITUDE CONTROL
4.1.1	3	O	165	RATE GYROS	ATTITUDE INCREMENT	4.1.1.4	ATTITUDE DETERMINATION
4.1.1	3	O	166	GPS TRACKER	POSITION, RATE	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION
4.1.1	3	O	172	TDRSS	SECOND SOURCE NAVIGATION STATE	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION
4.1.1	3	O	173	STAR TRACKER	STAR POINTING ERROR	4.1.1.4	ATTITUDE DETERMINATION
4.1.1	3	I	173	STAR TRACKER	STAR POINTING COORDINATES	4.1.1.4	ATTITUDE DETERMINATION
4.1.2	3	O	33	GROUND OPERATOR	MODE CHANGE	2.3	VALIDATE CORE COMMANDS/ DATA
4.1.2	3	O	33	GROUND OPERATOR		4.1.2.1	REBOOST/REENTRY TARGETING
4.1.3	3	O	119	FLEXIBLE BODY MODE	MODES, AMPLITUDES	4.1.3.1	ATTITUDE AND TRANSLATION

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
				SENSORS			CONTROL
4.1.3	3	I	136	CMG'S	TORQUE COMMAND	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	O	136	CMG'S	CMG STATUS	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	I	138	REACTION CONTROL SYSTEM	THRUSTER FIRING COMMANDS	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	O	138	REACTION CONTROL SYSTEM	RCS STATUS	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	O	165	RATE GYROS	ATTITUDE INCREMENTS	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	I	178	POINTING MOUNT	POINTING COMMAND	4.1.3.4	POINTING MOUNT CONTROL
4.1.3	3	O	178	POINTING MOUNT	GIMBAL POSITION	4.1.3.4	POINTING MOUNT CONTROL
4.1.3	3	O	261	MAGNETOMETERS	MAGNETIC FIELD	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	O	262	MAGNETIC TORQUERS	TORQUER STATUS	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3	3	I	262	MAGNETIC TORQUER	TORQUE COMMAND	4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.6	3	O	166	GPS TRACKER	TIME REFERENCE	4.1.6.1	TIME-SOURCE MANAGEMENT
4.1.6	3	O	166	GPS TRACKER	FREQUENCY REFERENCE	4.1.6.3	FREQUENCY SOURCE MANAGEMENT
4.1.6	3	I	167	TIME,FREQUENCY SOURCES	TIME REFERENCE	4.1.6.1	TIME-SOURCE MANAGEMENT
4.1.6	3	I	167	TIME,FREQUENCY SOURCES	TIME, FREQUENCY UPDATES	4.1.6.2	TIME UPDATE
4.1.6	3	I	167	TIME,FREQUENCY SOURCES	FREQUENCY REFERENCE	4.1.6.3	FREQUENCY SOURCE MANAGEMENT
4.1.6	3	I	167	TIME,FREQUENCY SOURCES	ON, OFF RESET	4.1.6.4	DEVICE MANAGEMENT
4.1.6	3	O	167	TIME,FREQUENCY SOURCES	STATUS	4.1.6.4	DEVICE MANAGEMENT
4.2	2	O	182	THERMAL CONTROL SYSTEM	THERMAL SENSOR, EFFECTOR DATA	4.2.2	OPERATE THERMAL CONTROL SYSTEM
4.2	2	I	182	THERMAL CONTROL SYSTEM	THERMAL CONTROL COMMANDS	4.2.2	OPERATE THERMAL CONTROL SYSTEM
4.2	2	I	183	POWER SYSTEM	POWER CONTROL COMMANDS	4.2.1	OPERATE POWER SYSTEM
4.2	2	O	183	POWER SYSTEM	POWER SENSOR, EFFECTOR DATA	4.2.1	OPERATE POWER SYSTEM
4.2	2	I	184	ECLSS	ECLSS CONTROL COMMANDS	4.2.4	ECLSS OPERATION
4.2	2	O	184	ECLSS	ECLSS SENSOR, EFFECTOR DATA	4.2.4	ECLSS OPERATION
4.2	2	O	185	STRUCTURES SYSTEM	SENSOR MONITOR	4.2.3	STRUCTURES AND MECHANISM SUPPORT
4.2	1	O	186	MECHANISMS	MECHANISM SENSOR, EFFECTOR DATA	4.2.3	STRUCTURES AND MECHANISM SUPPORT
4.2	2	I	186	MECHANISMS	CONTROL COMMANDS	4.2.3	STRUCTURES AND MECHANISM SUPPORT
4.2	2	O	242	COMMUNICATION EQUIPMENT	COMMUNICATION EQUIPMENT SPARES	4.2.5	COMMUNICATIONS SYSTEM
4.2	2	I	242	COMMUNICATION EQUIPMENT	MODE, POINT, OPERATION	4.2.5	COMMUNICATION SYSTEM
4.2.1	3	I	102	OPERATOR	STATUS, ABNORMAL POWER CONDITION	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	102	OPERATOR	CONFIGURATION COMMANDS	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	I	102	OPERATOR	STATUS, ABNORMAL POWER CONDITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	102	OPERATOR	POWER SOURCE COMMANDS	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	188	ARRAY REGULATOR SYSTEM	ARRAY CURRENTS, VOLTAGES	4.2.1.1	EVALUATE ARRAY PERFORMANCE

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
4.2.1	3	O	188	ARRAY REGULATOR SYSTEM	ARRAY CURRENTS, VOLTAGES	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	188	ARRAY REGULATOR SYSTEM	REGULATOR SET POINTS	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	189	POWER SOURCE CONFIGURATION SWITCH GEAR	SOURCE SWITCH POSITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	189	POWER SOURCE CONFIGURATION SWITCH GEAR	BUS LOADS, SWITCH STATUS	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	190	ENERGY STORAGE UNITS	STORAGE OPERATING MODE	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	190	ENERGY STORAGE UNITS	STORAGE STATUS, TEMPERATURE	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	191	DISTRIBUTION/LOAD SWITCHES	SWITCH POSITION	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	191	DISTRIBUTION/LOAD SWITCHES	SWITCH STATUS, LOAD, CURRENTS, VOLTAGES	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	192	SOLAR ARRAY	MODE CONFIRMATION	4.2.1.4	ARRAY DEPLOYMENT
4.2.1	3	I	192	SOLAR ARRAY	DEPLOY, RETRACT	4.2.1.4	ARRAY DEPLOYMENT
4.2.2	3	I	102	OPERATOR	ABNORMAL THERMAL CONDITIONS	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	O	224	BUS AND RADIATOR FLUID LOOPS	FLUID TEMPERATURE, PRESSURE, AND FLOW RATE	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	O	224	BUS AND RADIATOR FLUID LOOPS	EQUIPMENT STATUS	4.2.2.2	DEVICE MANAGEMENT (EXPERT DMS)
4.2.2	3	O	225	BUS AND RADIATOR FLUID CONTROL	STATUS AND PERFORMANCE	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	I	225	BUS AND RADIATOR FLUID CONTROL	CONTROL PARAMETERS	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	O	226	PAYLOAD SIDE INTERFACE HEAT EXCHANGER	FLUID TEMPERATURE, PRESSURE, AND FLOW RATE	4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	O	226	PAYLOAD SIDE INTERFACE HEAT EXCHANGERS	EQUIPMENT STATUS	4.2.2.2	THERMAL DEVICE MANAGEMENT
4.2.5	3	I	242	COMMUNICATION EQUIPMENT	COMMUNICATION EQUIPMENT CONTROL SIGNALS	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5	3	O	242	COMMUNICATION EQUIPMENT	COMMUNICATION DETECTOR SIGNALS	4.2.5.3	COMMUNICATIN EQUIPMENT STATUS MONITORING
4.3.2	3	I	23	PLATFORM PAYLOADS	AUTOMATIC EMERGENCY COMMANDS	4.3.2.3	AUTOMATIC CONTROL PROCESSING
4.3.2	3	I	102	OPERATOR	ALARMS, ANNUNCIATIONS, ABNORMAL CONDITION DATA	4.3.2.1	CAUTION AND WARNING
4.4	2	O	1	CUSTOMER/OPERATOR	INSTRUMENT OFFSET, TARGET SELECTION	4.4.1	GN & C SERVICES
4.4	2	I	23	PLATFORM PAYLOAD	COORDINATES, MAGNETIC FIELDS	4.4.1	GN & C SERVICES
4.4	2	O	173	STAR TRACKER	STAR COORDINATES	4.4.1	GN & C SERVICES
4.4	2	O	261	MAGNETOMETERS	MAGNETIC FIELD	4.4.2	ENVIRONMENT MONITOR
4.4	2	I	264	PALLET	POINTER COMMANDS	4.4.1	GN & C SERVICES
4.4	2	O	266	ENVIRONMENT MONITOR SENSORS	MONITOR CONDITIONS	4.4.2	ENVIRONMENT MONITOR
4.4	2	O	272	ALIGHMENT SENSORS	DISPLACEMENT	4.4.1	GN & C SERVICES
4.4.1	3	O	1	CUSTOMER/OPERATOR	INSTRUMENT OFFSET	4.4.1.1	GROUND TRACK DETERMINATION
4.4.1	3	O	1	CUSTOMER/OPERATOR	TARGET SELECTION	4.4.1.3	PALLET COARSE POINTING
4.4.1	3	I	23	PLATFORM PAYLOADS	SUBSATELLITE COORDINATES, POINTING COORDINATES, RATES	4.4.1.1	GROUND TRACK DETERMINATION
4.4.1	3	I	23	PLATFORM PAYLOADS	MAGNETIC FIELD	4.4.1.2	MAGNETIC FIELD DETERMINATION
4.4.1	3	I	23	PLATFORM PAYLOADS	ALIGNMENT REFERENCE	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.4.1	3	O	173	STAR TRACKER	STAR COORDINATES	4.4.1.4	RELATIVE ALIGNMENT DETER-

FUN NO	LEVEL	I O MODE	EX SOURCE NO	EX SOURCE NAME	DATA FLOW MESSAGE	PROCESS NO	PROCESS NAME
4.4.1	3	I	264	PALLET	POINTING COMMANDS	4.4.1.3	MINATION PALLET COARSE POINTING
4.4.1	3	O	272	ALIGNMENT SENSORS	DISPLACEMENT	4.4.1.4	RELATIVE ALIGNMENT DETER- MINATION
4.5	2	I	1	CUSTOMER/OPERATOR	PAYLOAD SYSTEM STATUS	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS
4.5	2	I	32	CORE OPERATOR	CORE SYSTEM STATUS	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5	2	I	33	GROUND OPERATOR	DIAGNOSTICS MESSAGES	4.5.4	DIAGNOSTICS SUPPORT
4.5.4	3	I	33	GROUND OPERATOR	DIAGNOSTICS MESSAGES	4.5.4.1	FAULT ANALYSIS
4.5.4	3	O	33	GROUND OPERATOR	PROPOSED FAULT CORRECTION	4.5.4.2	FAULT CORRECTION
4.5.4	3	I	33	GROUND OPERATOR	FAULTS CORRECTION SIMULATION RESULTS	4.5.4.2	FAULT CORRECTION
4.5.4	3	O	33	GROUND OPERATOR	ELEMENTS TO BE ANALYZED	4.5.4.3	TREND ANALYSIS
4.5.4	3	I	33	GROUND OPERATOR	TREND ANALYSIS RESULTS	4.5.4.3	TREND ANALYSIS
5.0	1	O	63	DEVELOPMENT COMMUNICATION INTERFACE	NEW SOFTWARE DATABASE	5.1	MANAGE FLIGHT SYSTEM FACILITIES
5.0	1	O	63	DEVELOPMENT COMMUNICATION INTERFACE	NEW SOFTWARE DATABASE	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	O	92	NETWORK CONTROL	NETWORK, TDRSS SCHEDULE	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	I	92	NETWORK CONTROL	SCHEDULE REQUESTS	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	I	127	FLIGHT DATA PROCESSING EQUIPMENT	RECONFIGURE	5.1	MANAGE FLIGHT SYSTEM FACILITIES
5.0	1	I	129	SSCC DATA PROCESSING EQUIPMENT	RECONFIGURE	5.2	MANAGE GROUND SYSTEM FACILITIES

Total Number Of Records: 182

E.4 Process to Process Data Flows

The process-to-process data flows, shown in this section, are the primary measure of interconnection for realtime data flow and the consequences of collecting or separating functions. The data entries are similar to those of Section E.3.

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
0.0	0	O	2.0	MANAGE CUSTOMER/OPERATOR SUPPLIED DATA	RES. CONSTR. P/L CMMDS, VALID OPERATOR CMMDS/DATA	3.0	SCHEDULE AND EXECUTE OPERATIONS
0.0	0	I	3.0	SCHEDULE AND EXECUTE OPERATIONS	RES. CONSTR. P/L CMMDS, VALID OPERATOR CMMDS/DATA	2.0	MANAGE CUSTOMER/OPERATOR SUPPLIED DATA
0.0	0	O	3.0	SCHEDULE AND EXECUTE OPERATIONS	EXECUTABLE CORE COMMANDS, DATA	4.0	OPERATE CORE SYSTEM
0.0	0	I	4.0	OPERATE CORE SYSTEM	EXECUTABLE CORE COMMANDS, DATA	3.0	SCHEDULE AND EXECUTE OPERATIONS
0.0	0	I	4.0	OPERATE CORE SYSTEM	RECONFIGURE DISCONNECT	5.0	MANAGE SSDS FACILITIES AND RESOURCES
0.0	0	O	5.0	MANAGE SSDS FACILITIES AND RESOURCES	RECONFIGURE DISCONNECT	4.0	OPERATE CORE SYSTEM
0.0	0	I	5.0	MANAGE SSDS FACILITIES AND RESOURCES	NEW/UPDATED DATABASE, SOFTWARE	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN
0.0	0	O	6.0	DEVELOP, SIMULATE, INTEGRATE, AND TRAIN	NEW/UPDATED DATABASE, SOFTWARE	5.0	MANAGE SSDS FACILITIES AND RESOURCES
1.0	1	I	1.1	MANAGE REALTIME DATA RETURN	VOICE, VIDEO COMMUNICATION	1.3	DATA DISTRIBUTION
1.0	1	O	1.1	MANAGE REALTIME DATA RETURN	VOICE, VIDEO COMMUNICATION	1.3	DATA DISTRIBUTION
1.0	1	O	1.1	MANAGE REALTIME DATA RETURN	REALTIME DATA	1.3	DATA DISTRIBUTION
1.0	1	I	1.1	MANAGE REALTIME DATA RETURN	FLIGHT CREW DATA	4.3	SUPPORT FLIGHT CREW ACTIVITIES
1.0	1	O	1.2	MANAGE DELAYABLE DATA RETURN	DELAYED DATA	1.3	DATA DISTRIBUTION
1.0	1	I	1.3	DATA DISTRIBUTION	REALTIME DATA	1.1	MANAGE REALTIME DATA RETURN
1.0	1	I	1.3	DATA DISTRIBUTION	VOICE, VIDEO COMMUNICATION	1.1	MANAGE REALTIME DATA RETURN
1.0	1	O	1.3	DATA DISTRIBUTION	VOICE, VIDEO COMMUNICATION	1.1	MANAGE REALTIME DATA RETURN
1.0	1	I	1.3	DATA DISTRIBUTION	DELAYED DATA	1.2	MANAGE DELAYABLE DATA RETURN
1.0	1	I	1.3	DATA DISTRIBUTION	VOICE, VIDEO COMMUNICATION	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	O	1.3	DATA DISTRIBUTION	VOICE, VIDEO COMMUNICATION	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	O	1.3	DATA DISTRIBUTION	CUSTOMER DATA	1.4	MANAGE DELIVERABLE DATA
1.0	1	O	1.3	DATA DISTRIBUTION	OPERATOR DATA	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	I	1.3	DATA DISTRIBUTION	VOICE, VIDEO COMMUNICATION	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	O	1.3	DATA DISTRIBUTION	VOICE, VIDEO COMMUNICATION	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	I	1.4	MANAGE DELIVERABLE CUSTOMER DATA	VOICE, VIDEO COMMUNICATION	1.3	DATA DISTRIBUTION
1.0	1	I	1.4	MANAGE DELIVERABLE CUSTOMER DATA	CUSTOMER DATA	1.3	DATA DISTRIBUTION
1.0	1	O	1.4	MANAGE DELIVERABLE CUSTOMER DATA	VOICE, VIDEO COMMUNICATION	1.3	DATA DISTRIBUTION
1.0	1	I	1.4	MANAGE DELIVERABLE CUSTOMER DATA	ADDITIONAL ANCILLARY DATA	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	I	1.5	MANAGE DELIVERABLE CORE	VOICE, VIDEO COMMUNICATION	1.3	DATA DISTRIBUTION

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
1.0	1	I	1.5	MANAGE DELIVERABLE CORE DATA	OPERATOR DATA	1.3	DATA DISTRIBUTION
1.0	1	O	1.5	MANAGE DELIVERABLE CORE DATA	VOICE, VIDEO COMMUNICATION	1.3	DATA DISTRIBUTION
1.0	1	O	1.5	MANAGE DELIVERABLE CORE DATA	ADDITIONAL ANCILLARY DATA	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.0	1	O	4.3	SUPPORT FLIGHT CREW ACTIVITIES	FLIGHT CREW DATA	1.1	MANAGE REALTIME DATA RETURN
1.1	2	O	1.1.1	ACQUIRE REALTIME DATA	REALTIME DATA AVAILABLE	1.1.2	PRIORITIZE REALTIME DATA
1.1	2	I	1.1.1	ACQUIRE REALTIME DATA	VOICE, VIDEO COMMUNICATION	1.3.1	PREPROCESSING
1.1	2	O	1.1.1	ACQUIRE REALTIME DATA	VOICE, VIDEO COMMUNICATION	1.3.1	PREPROCESSING
1.1	2	I	1.1.1	ACQUIRE REALTIME DATA	OMV, OTV STATUS	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
1.1	2	I	1.1.1	ACQUIRE REALTIME DATA	VOICE, VIDEO	4.3.3.2	CREW/GROUND COMMUNICATIION
1.1	2	O	1.1.1	ACQUIRE REALTIME DATA	VOICE, VIDEO	4.3.3.2	CREW/GROUND COMMUNICATION
1.1	2	I	1.1.2	PRIORITIZE REALTIME DATA	REALTIME DATA AVAILABLE	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	1.1.2	PRIORITIZE REALTIME DATA	REALTIME DATA	1.1.5	FORMAT REALTIME DATA
1.1	2	O	1.1.3	MONITOR REALTIME DATA	DISPATCH SCHEDULE	1.1.4	DISPATCH REALTIME DATA
1.1	2	I	1.1.3	MONITOR REALTIME DATA	LINK AVAILABILITY	4.2.5.7	TELEMETRY CONTROL
1.1	2	O	1.1.3	MONITOR REALTIME DATA	LINK REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
1.1	2	I	1.1.4	DISPATCH REALTIME DATA	DISPATCH SCHEDULE	1.1.3	MONITOR REALTIME DATA
1.1	2	I	1.1.4	DISPATCH REALTIME DATA	FORMATTED DATA AVAILABLE	1.1.5	FORMAT REALTIME DATA
1.1	2	O	1.1.4	DISPATCH REALTIME DATA	REALTIME DATA	1.3.1	PREPROCESSING
1.1	2	O	1.1.4	DISPATCH REALTIME DATA	REALTIME DATA	1.3.2	GENERAL DATA CAPTURE
1.1	2	I	1.1.5	FORMAT REALTIME DATA	REALTIME DATA	1.1.2	PRIORITIZE REALTIME DATA
1.1	2	O	1.1.5	FORMAT REALTIME DATA	FORMATTED DATA AVAILABLE	1.1.4	DISPATCH REALTIME DATA
1.1	2	O	1.3.1	PREPROCESSING	VOICE, VIDEO COMMUNICATION	1.1.1	ACQUIRE REALTIME DATA
1.1	2	I	1.3.1	PREPROCESSING	VOICE, VIDEO COMMUNICATION	1.1.1	ACQUIRE REALTIME DATA
1.1	2	I	1.3.1	PREPROCESSING	REALTIME DATA	1.1.4	DISPATCH REALTIME DATA
1.1	2	I	1.3.2	GENERAL DATA CAPTURE	REALTIME DATA	1.1.4	DISPATCH REALTIME DATA
1.1	2	O	2.5	SUPPORT CUSTOMER SYSTEM OPERATION	OMV, OTV STATUS	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	4.2.5.7	TELEMETRY CONTROL	LINK AVAILABILITY	1.1.3	MONITOR REALTIME DATA
1.1	2	I	4.2.5.7	TELEMETRY CONTROL	LINK REQUIREMENTS	1.1.3	MONITOR REALTIME DATA
1.1	2	I	4.3.3.2	CREW/GROUND COMMUNICATION	VOICE, VIDEO	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	4.3.3.2	CREW/GROUND COMMUNICATION	VOICE, VIDEO	1.1.1	ACQUIRE REALTIME DATA
1.2	2	O	1.2.1	CAPTURE DELAYED PAYLOAD DATA	UNFORMATTED PAYLOAD DATA	1.2.5	FORMAT DELAYED DATA
1.2	2	O	1.2.2	PRIORITIZE DELAYED DATA	TRANSMISSION PRIORITIES	1.2.4	DISPATCH DELAYED DATA
1.2	2	O	1.2.3	MONITOR DELAYED DATA	DISPATCH SCHEDULE	1.2.4	DISPATCH DELAYED DATA
1.2	2	I	1.2.3	MONITOR DELAYED DATA	LINK AVAILABILITY	4.2.5.7	TELEMETRY CONTROL
1.2	2	O	1.2.3	MONITOR DELAYED DATA	LINK REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
1.2	2	I	1.2.4	DISPATCH DELAYED DATA	TRANSMISSION PRIORITIES	1.2.2	PRIORITIZE DELAYED DATA
1.2	2	I	1.2.4	DISPATCH DELAYED DATA	DISPATCH SCHEDULE	1.2.3	MONITOR DELAYED DATA
1.2	2	O	1.2.4	DISPATCH DELAYED DATA	BULK DATA	1.3.1	PRE-PROCESSING
1.2	2	O	1.2.4	DISPATCH DELAYED DATA	BULK DATA	1.3.2	GENERAL DATA CAPTURE
1.2	2	I	1.3.1	PRE-PROCESSING	BULK DATA	1.2.4	DISPATCH DELAYED DATA
1.2	2	I	1.3.2	DATA CAPTURE	BULK DATA	1.2.4	DISPATCH DELAYED DATA
1.2	2	I	4.2.5.7	TELEMETRY CONTROL	LINK REQUIREMENTS	1.2.3	MONITOR DELAYED DATA
1.2	2	O	4.2.5.7	TELEMETRY CONTROL	LINK AVAILABILITY	1.2.3	MONITOR DELAYED DATA
1.3	2	O	1.1.1	ACQUIRE REALTIME DATA	VOICE, VIDEO COMMUNICATION	1.3.1	PRE-PROCESSING
1.3	2	I	1.1.1	ACQUIRE REALTIME DATA	VOICE, VIDEO COMMUNICATION	1.3.1	PRE-PROCESSING

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
1.3	2	O	1.1.4	DISPATCH REALTIME DATA	REALTIME DATA	1.3.2	GENERAL DATA CAPTURE
1.3	2	O	1.2.4	DISPATCH DELAYED DATA	DELAYED DATA	1.3.1	PRE-PROCESSING
1.3	2	O	1.2.4	DISPATCH DELAYED DATA	DELAYED DATA	1.3.2	GENERAL DATA CAPTURE
1.3	2	O	1.3.1	PRE-PROCESSING	VOICE, VIDEO COMMUNICATION	1.1.1	ACQUIRE REALTIME DATA
1.3	2	I	1.3.1	PRE-PROCESSING	VOICE, VIDEO COMMUNICATION	1.1.1	ACQUIRE REALTIME DATA
1.3	2	I	1.3.1	PREPROCESSING	REALTIME DATA	1.1.4	DISPATCH REALTIME DATA
1.3	2	I	1.3.1	PREPROCESSING	DELAYED DATA	1.2.4	DISPATCH DELAYED DATA
1.3	2	I	1.3.1	PREPROCESSING	RETRANSMITTED NEW DATA	1.3.2	DATA CAPTURE
1.3	2	I	1.3.1	PREPROCESSING	VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.3	2	O	1.3.1	PREPROCESSING	VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.3	2	O	1.3.1	PREPROCESSING	PRE-PROCESSED DATA	1.3.4	QUALITY VERIFICATION
1.3	2	I	1.3.2	DATA CAPTURE	REALTIME DATA	1.1.4	DISPATCH REALTIME DATA
1.3	2	I	1.3.2	DATA CAPTURE	DELAYED DATA	1.2.4	DISPATCH DELAYED DATA
1.3	2	O	1.3.2	GENERAL DATA CAPTURE	RETRANSMITTED NEW DATA	1.3.1	PRE-PROCESSING
1.3	2	I	1.3.3	ROUTING AND TRANSMISSION	VOICE, VIDEO COMMUNICATION	1.3.1	PREPROCESSING
1.3	2	O	1.3.3	ROUTING AND TRANSMISSION	VOICE, VIDEO COMMUNICATION	1.3.1	PRE-PROCESSING
1.3	2	O	1.3.3	ROUTING AND TRANSMISSION	CUSTOMER DATA	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.3	2	I	1.3.3	ROUTING AND TRANSMISSION	CUSTOMER VOICE, VIDEO COMMUNICATION	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.3	2	O	1.3.3	ROUTING AND TRANSMISSION	CUSTOMER VOICE, VIDEO COMMUNICATION	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.3	2	I	1.3.3	ROUTING AND TRANSMISSION	RETRANSMISSION REQUEST	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.3	2	I	1.3.3	ROUTING AND TRANSMISSION	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.3	2	O	1.3.3	ROUTING AND TRANSMISSION	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.3	2	I	1.3.3	ROUTING AND TRANSMISSION	RETRANSMISSION REQUEST	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.3	2	O	1.3.3	ROUTING AND TRANSMISSION	CORE DATA	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.3	2	I	1.3.4	QUALITY VERIFICATION	PRE-PROCESSED DATA	1.3.1	PREPROCESSING
1.3	2	O	1.3.4	QUALITY VERIFICATION	DATA STATUS	5.2.1	DISTRIBUTED DATABASE MANAGEMENT SYSTEM
1.3	2	O	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	CUSTOMER VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.3	2	I	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	CUSTOMER DATA	1.3.3	ROUTING AND TRANSMISSION
1.3	2	I	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	CUSTOMER VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.3	2	I	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	RETRANSMISSION REQUEST	1.3.3	ROUTING AND TRANSMISSION
1.3	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	RETRANSMISSION REQUEST	1.3.3	ROUTING AND TRANSMISSION
1.3	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	OPERATOR VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.3	2	I	1.5.1	CORE DATA INTERFACE MANAGEMENT	CORE DATA	1.3.3	ROUTING AND TRANSMISSION
1.3	2	I	1.5.1	CORE DATA INTERFACE MANAGEMENT	OPERATOR VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.3	2	I	5.2.1	DISTRIBUTED DATA MANAGEMENT SYSTEM	DATA STATUS	1.3.4	QUALITY VERIFICATION
1.4	2	O	1.3.3	ROUTING AND TRANSMISSION	CUSTOMER DATA	1.4.1	CUSTOMER DATA INTERFACE

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
1.4	2	I	1.3.3	ROUTING AND TRANSMISSION	CUSTOMER VOICE, VIDEO	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.4	2	I	1.3.3	ROUTING AND TRANSMISSION	RETRANSMISSION REQUEST	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.4	2	O	1.3.3	ROUTING AND TRANSMISSION	CUSTOMER VOICE, VIDEO	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.4	2	O	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	RETRANSMISSION REQUEST	1.3.3	ROUTING AND TRANSMISSION
1.4	2	I	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	CUSTOMER VIDEO, VOICE COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.4	2	I	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	CUSTOMER DATA	1.3.3	ROUTING AND TRANSMISSION
1.4	2	O	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	CUSTOMER VIDEO, VOICE COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.4	2	O	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	CUSTOMER DATA	1.4.2	CUSTOMER DATA CAPTURE
1.4	2	O	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	OFFSITE CUSTOMER VOICE, VIDEO	1.4.7	SSIS ROUTING AND TRANSMISSION
1.4	2	I	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT	OFFSITE CUSTOMER VOICE, VIDEO	1.4.7	SSIS ROUTING AND TRANSMISSION
1.4	2	I	1.4.2	CUSTOMER DATA CAPTURE	CUSTOMER DATA	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.4	2	O	1.4.2	CUSTOMER DATA CAPTURE	CUSTOMER BULK AND REALTIME DATA	1.4.3	CUSTOMER DATA HANDLING
1.4	2	O	1.4.2	CUSTOMER DATA CAPTURE	CUSTOMER DATA FOR PROCESSING	1.4.5	LEVEL 0 CUSTOMER DATA PROCESSING
1.4	2	I	1.4.3	CUSTOMER DATA HANDLING	CUSTOMER AND BULK REALTIME DATA	1.4.2	CUSTOMER DATA CAPTURE
1.4	2	I	1.4.3	CUSTOMER DATA HANDLING	NON-REALTIME ANCILLARY	1.4.4	ANCILLARY DATA ACQUISTION
1.4	2	I	1.4.3	CUSTOMER DATA HANDLING	PROCESSED BULK AND REALTIME DATA	1.4.5	LEVEL 0 CUSTOMER DATA PROCESSING
1.4	2	O	1.4.3	CUSTOMER DATA HANDLING	CUSTOMER DATA	1.4.7	SSIS ROUTING AND TRANSMISSION
1.4	2	O	1.4.4	ANCILLARY DATA ACQUISTION	NON-REALTIME ANCILLARY	1.4.3	CUSTOMER DATA HANDLING
1.4	2	I	1.4.5	LEVEL 0 CUSTOMER DATA PROCESSING	CUSTOMER DATA FOR PROCESSING	1.4.2	CUSTOMER DATA CAPTURE
1.4	2	O	1.4.5	LEVEL 0 CUSTOMER DATA PROCESSING	PROCESSED BULK AND REALTIME DATA	1.4.3	CUSTOMER DATA HANDLING
1.4	2	O	1.4.7	SSIS ROUTING AND TRANSMISSION	OFFSITE CUSTOMER VOICE, VIDEO	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.4	2	I	1.4.7	SSIS ROUTING AND TRANSMISSION	OFFSITE CUSTOMER VOICE, VIDEO	1.4.1	CUSTOMER DATA INTERFACE MANAGEMENT
1.4	2	I	1.4.7	SSIS ROUTING AND TRANSMISSION	CUSTOMER DATA	1.4.3	CUSTOMER DATA HANDLING
1.5	2	O	1.3.3	ROUTING AND TRANSMISSION	CORE DATA	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	O	1.3.3	ROUTING AND TRANSMISSION	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	I	1.3.3	ROUTING AND TRANSMISSION	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	I	1.3.3	ROUTING AND TRANSMISSION	RETRANSMISSION REQUEST	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	O	1.5.1	CORE DATA INTERFACE	OPERATOR VOICE, VIDEO	1.3.3	ROUTING AND TRANSMISSION

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
				MANAGEMENT	COMMUNICATION		
1.5	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	RETRANSMISSION REQUEST	1.3.3	ROUTING AND TRANSMISSION
1.5	2	I	1.5.1	CORE DATA INTERFACE MANAGEMENT	CORE DATA	1.3.3	ROUTING AND TRANSMISSION
1.5	2	I	1.5.1	CORE DATA INTERFACE MANAGEMENT	OPERATOR VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.5	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	CORE DATA	1.5.2	CORE DATA CAPTURE
1.5	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.4	DISPLAYS AND CONTROLS
1.5	2	I	1.5.1	CORE DATA INTERFACE MANAGEMENT	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.4	DISPLAYS AND CONTROLS
1.5	2	I	1.5.2	CORE DATA CAPTURE	CORE DATA	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	O	1.5.2	CORE DATA CAPTURE	OPERATOR REALTIME DATA	1.5.3	CORE DATA PROCESSING
1.5	2	I	1.5.3	DATA EXTRACTION	OPERATOR REALTIME DATA	1.5.2	CORE DATA CAPTURE
1.5	2	O	1.5.3	DATA EXTRACTION	PROCESSED CORE DATA	1.5.4	DISPLAYS AND CONTROLS
1.5	2	O	1.5.4	DISPLAYS AND CONTROLS	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	I	1.5.4	DISPLAYS AND CONTROLS	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	I	1.5.4	DISPLAYS AND CONTROLS	PROCESSED CORE DATA	1.5.3	DATA EXTRACTION
2.0	1	I	1.1.1	ACQUIRE REALTIME DATA	OMV, OTV STATUS	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	O	2.1	VALIDATE PAYLOAD COMMANDS /DATA	VALID PAYLOAD COMMANDS	2.2	CHECK SSDS SERVICE REQUIREMENTS
2.0	1	I	2.2	CHECK SSDS SERVICE REQUIREMENTS	VALID PAYLOAD COMMANDS	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.0	1	O	2.2	CHECK SSDS SERVICE REQUIREMENTS	VALID CUSTOMER/OPERATOR CONTROL COMMANDS, DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	O	2.2	CHECK SSDS SERVICE REQUIREMENTS	PAYLOAD COMMANDS TO SSDS SERVICES	3.3.2	CHECK SCHEDULE CONFLICTS
2.0	1	O	2.3	VALIDATE CORE COMMANDS/ DATA	VALID OPERATOR COMMANDS	3.3.2	CHECK SCHEDULE CONFLICTS
2.0	1	O	2.3	VALIDATE CORE COMMANDS/ DATA	NON-RESTRICTED CORE COMMANDS, VALID CORE DATA	4.0	OPERATE CORE SYSTEM
2.0	1	O	2.4	PROVIDE ANCILLARY DATA	ANCILLARY DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	O	2.5	SUPPORT CUSTOMER SYSTEM OPERATION	OMV, OTV STATUS	1.1.1	ACQUIRE REALTIME DATA
2.0	1	I	2.5	SUPPORT CUSTOMER SYSTEM OPERATIONS	VALID CUSTOMER/OPERATOR CONTROL COMMANDS, DATA	2.2	CHECK SSDS SERVICE REQUIREMENTS
2.0	1	I	2.5	SUPPORT CUSTOMER SYSTEM OPERATIONS	ANCILLARY DATA	2.4	PROVIDE ANCILLARY DATA
2.0	1	I	2.5	SUPPORT CUSTOMER SYSTEM OPERATION	PAYLOAD COMMANDS	3.4	SEQUENCE OPERATIONS
2.0	1	I	2.6	SSPE CHECKOUT AND SERVICING	SSPE MAINTENANCE AND SERVICING PROCEDURES	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES
2.0	1	I	3.3.2	CHECK SCHEDULE CONFLICTS	PAYLOAD COMMANDS TO SSDS SERVCES	2.2	CHECK SSDS SERVICE REQUIREMENTS
2.0	1	I	3.3.2	CHECK SCHEDULE CONFLICTS	VALID OPERATOR COMMANDS	2.3	VALIDATE CORE COMMANDS/ DATA
2.0	1	O	3.4	SEQUENCE OPERATIONS	PAYLOAD COMMANDS	2.5	SUPPORT CUSTOMER SYSTEM

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2.0	1	I	4.0	OPERATE CORE SYSTEMS	NON-RESTRICTED CORE COMMANDS, VALID CORE DATA	2.3	OPERATION VALIDATE CORE COMMANDS/ DATA
2.0	1	O	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES	SSPE MAINTENANCE AND SERVICE PROCEDURES	2.6	SSPE CHECKOUT AND SERVICING
2.3	2	O	2.3.1	AUTHORIZE OPERATOR	OPERATOR AUTHORIZATION	2.3.2	AUTHORIZE OPERATION
2.3	2	I	2.3.2	AUTHORIZE OPERATION	OPERATOR AUTHORIZATION	2.3.1	AUTHORIZE OPERATOR
2.3	2	O	2.3.2	AUTHORIZE OPERATION	VALID OPERATOR COMMANDS	3.3.2	CHECK RESTRICTED/ CONSTRAINED COMMANDS
2.3	2	O	2.3.2	AUTHORIZE OPERATION	NON-RESTRICTED CORE COMMANDS, VALID CORE DATA	4.0	OPERATE CORE SYSTEM
2.3	2	O	2.3.2	AUTHORIZE OPERATION	FACILITIES COMMANDS	5.1.3.2	COMMAND INTERFACE PROCESSING
2.3	2	I	3.3.2	CHECK RESTRICTED/ CONSTRAINED COMMANDS	VALID OPERATOR COMMANDS	2.3.2	AUTHORIZE OPERATION
2.3	2	I	4.0	OPERATE CORE SYSTEM	NON-RESTRICTED CORE COMMANDS, VALID CORE DATA	2.3.2	AUTHORIZE OPERATION
2.3	2	I	5.1.3.2	COMMAND INTERFACE PROCESSING	FACILITIES COMMANDS	2.3.2	AUTHORIZE OPERATION
2.5	2	I	1.1.1	ACQUIRE REALTIME DATA	OTV PAYLOAD STATUS	2.5.3	SUPPORT OTV OPERATIONS
2.5	2	I	1.1.1	ACQUIRE REALTIME DATA	OMV PAYLOAD STATUS	2.5.4	SUPPORT OMV OPERATIONS
2.5	2	O	2.2	CHECK SSDS SERVICE REQUIREMENTS	VALID CUSTOMER/OPERATOR CONTROL COMMANDS, DATA	2.5.2	CUSTOMER PAYLOAD OPERATIONS
2.5	2	O	2.2	CHECK SSDS SERVICE REQUIREMENTS	OTV CONTROL	2.5.3	SUPPORT OTV OPERATIONS
2.5	2	O	2.2	CHECK SSDS SERVICE REQUIREMENTS	OMV CONTROL	2.5.4	SUPPORT OMV OPERATIONS
2.5	2	I	2.2	CHECK SSDS SERVICE REQUIREMENTS	OMV CONTROL REQUESTS	2.5.4	SUPPORT OMV OPERATIONS
2.5	2	O	2.4	PROVICE ANCILLARY DATA	ANCILLARY STATUS DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	I	2.5.1	CUSTOMER DATA PROCESSING	ANCILLARY STATUS DATA	2.4	PROVIDE ANCILLARY DATA
2.5	2	O	2.5.1	CUSTOMER DATA PROCESSING	PROCESSED OPERATING DATA	2.5.2	CUSTOMER PAYLOAD OPERATIONS
2.5	2	I	2.5.2	CUSTOMER PAYLOAD OPERATIONS	VALID CUSTOMER/OPERATOR CONTROL COMMANDS, DATA	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5	2	I	2.5.2	CUSTOMER PAYLOAD OPERATIONS	PROCESSED OPERATING DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	I	2.5.2	CUSTOMER PAYLOAD OPERATIONS	VALID, EXECUTABLE OPERATING COMMANDS	3.4.1	SEQUENCE PAYLOAD OPERATIONS
2.5	2	O	2.5.3	SUPPORT OTV OPERATIONS	OTV PAYLOAD STATUS	1.1.1	ACQUIRE REALTIME DATA
2.5	2	I	2.5.3	SUPPORT OTV OPERATIONS	OTV CONTROL	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5	2	O	2.5.4	SUPPORT OMV OPERATIONS	OMV PAYLOAD STATUS	1.1.1	ACQUIRE REALTIME DATA
2.5	2	O	2.5.4	SUPPORT OMV OPERATIONS	OMV CONTROL REQUESTS	2.2	CHECK SSDS SERVICE REQUIREMENTS
2.5	2	I	2.5.4	SUPPORT OMV OPERATIONS	OMV CONTROL	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5	2	I	2.5.4	SUPPORT OMV OPERATIONS	OMV PAYLOAD COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
2.5	2	O	3.4.1	SEQUENCE PAYLOAD OPERATIONS	VALID, EXECUTABLE OPERATING COMMANDS	2.5.2	CUSTOMER PAYLOAD OPERATIONS
2.5	2	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	OMV PAYLOAD COMMANDS	2.5.4	SUPPORT OMV OPERATIONS
2.5.3	3	I	1.1.1	ACQUIRE REALTIME DATA	OTV, PAYLOAD STATUS	2.5.3.5	OTV STATUS REPORT

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2.5.3	3	O	2.5.3.1	OTV SERVICING	SERVICING DATA	2.5.3.2	OTV CHECKOUT/DIAGNOSTICS
2.5.3	3	I	2.5.3.2	OTV CHECKOUT/DIAGNOSTICS	SERVICING DATA	2.5.3.1	OTV SERVICING
2.5.3	3	I	2.5.3.3	OTV DEPLOYMENT RETRIEVAL	OTV, OTHER RELATIVE STATE	4.1.4.3	SCHEDULE DEPLOYMENT/ RENDEZVOUS
2.5.3	3	I	2.5.3.4	OTV OPERATION	PAYLOAD, OTV CONTROL	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5.3	3	O	2.5.3.5	OTV STATUS	OTV, PAYLOAD STATUS	1.1.1	CAPTURE REALTIME DATA
2.5.3	3	O	4.1.4.3	SCHEDULE DEPLOYMENT/ RENDEZVOUS	OTV, OTHER RELATIVE STATE	2.5.3.3	OTV DEPLOYMENT RETRIEVAL
2.5.4	3	I	1.1.1	ACQUIRE REALTIME DATA	OMV PAYLOAD STATUS	2.5.4.6	OMV STATUS REPORT
2.5.4	3	I	2.2	CHECK SSDS SERVICE REQUIREMENTS	OMV CONTROL REQUESTS	2.5.4.4	REMOTE OPERATIONS CONTROL
2.5.4	3	O	2.2	CHECK SSDS SERVICE REQUIREMENTS	OMV CONTROL	2.5.4.5	OMV OPERATION
2.5.4	3	O	2.5.4.1	OMV SERVICING	SERVICING DATA	2.5.4.2	OMV CHECKOUT/DIAGNOSTICS
2.5.4	3	I	2.5.4.2	OMV CHECKOUT/DIAGNOSTICS	SERVICING DATA	2.5.4.1	OMV SERVICING
2.5.4	3	I	2.5.4.3	OMV DEPLOYMENT/RETRIEVAL	OMV, OTHER RELATIVE STATE	4.1.4.3	SCHEDULE DEPLOYMENT/REN-DEZVOUS
2.5.4	3	O	2.5.4.4	REMOTE OPERATIONS CONTROL		2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5.4	3	I	2.5.4.5	OMV OPERATION	OMV CONTROL	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5.4	3	I	2.5.4.5	OMV OPERATION	OMV PAYLOAD COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
2.5.4	3	O	2.5.4.6	OMV STATUS	OMV, PAYLOAD STATUS	1.1.1	CAPTURE REALTIME DATA
2.5.4	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	OMV PAYLOAD COMMANDS	2.5.4.5	OMV OPERATION
2.5.4	3	O	4.1.4.3	SCHEDULE DEPLOYMENT/ RENDEZVOUS	OMV, OTHER RELATIVE STATE	2.5.4.3	OMV DEPOYMENT/RETRIEVAL
3.0	1	O	2.2	CHECK SSDS SERVICE REQUIREMENTS	PAYLOAD COMMANDS TO SSDS SERVICES	3.3	DEVELOP OPERATING EVENTS SCHEDULE
3.0	1	O	2.3.2	VALIDATE OPERATION	VALID OPERATIONS COMMANDS	3.3	DEVELOP OPERATING EVENTS SCHEDULE
3.0	1	I	3.2	DEVELOP SHORT TERM SCHEDULES	COMMANDS REQUIRING NEGOTIATION	3.3	DEVELOP OPERATING EVENTS SCHEDULE
3.0	1	O	3.2	DEVELOP SHORT TERM SCHEDULES	RESOLVED COMMANDS	3.3	DEVELOP OPERATING EVENTS SCHEDULES
3.0	1	I	3.3	DEVELOP OPERATING EVENTS SCHEDULE	PAYLOAD COMMANDS TO SSDS SERVICES	2.2	CHECK SSDS SERVICE REQUIREMENTS
3.0	1	I	3.3	DEVELOP OPERATING EVENTS SCHEDULE	VALID OPERATIONS COMMANDS	2.3.2	VALIDATE OPERATION
3.0	1	O	3.3	DEVELOP OPERATING EVENT SCHEDULE	COMMANDS REQUIRING NEGOTIATION	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	I	3.3	DEVELOP OPERATING EVENTS SCHEDULE	RESOLVED COMMANDS	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	O	3.4	SEQUENCE OPERATIONS	VALID, EXECUTABLE CORE COMMANDS	4.0	OPERATE CORE SYSTEMS
3.0	1	I	4.0	OPERATE CORE SYSTEMS	VALID, EXECUTABLE CORE COMMANDS	3.4	SEQUENCE OPERATIONS
3.2	2	O	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES	NEW/REVISED OPERATIONS	3.2.2	INCORPERATED NEW/REVISED OPERATIONS
3.2	2	O	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES	BASELINE SCHEDULE	3.2.3	CHECK FOR CONFLICTS
3.2	2	I	3.2.2	INCORPERATE NEW/REVISED	NEW/REVISED OPERATIONS	3.2.1	CONFIRM PAYLOAD AND CORE

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3.2	2	I	3.2.3	CHECK FOR CONFLICTS OPERATION	BASELINE SCHEDULE	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	3.2.3	CHECK FOR CONFLICTS	SCHEDULE WITH CONFLICTS	3.2.4	CHECK FOR FACILITIES CAPABILITIES
3.2	2	I	3.2.3	CHECK FOR CONFLICTS	RESOLVED SCHEDULE	3.2.5	RESOLVE CONFLICTS
3.2	2	I	3.2.4	CHECK FOR FACILITIES	SCHEDULE WITH CONFLICTS	3.2.3	CHECK FOR CONFLICTS
3.2	2	O	3.2.4	CHECK FOR FACILITIES CAPABILITIES	SCHEDULE WITH RESOURCES AND CONFLICTS	3.2.5	RESOLVE CONFLICTS
3.2	2	O	3.2.5	RESOLVE CONFLICTS	RESOLVED SCHEDULE	3.2.3	CHECK FOR CONFLICTS
3.2	2	I	3.2.5	RESOLVE CONFLICTS	SCHEDULE WITH RESOURCES AND CONFLICTS	3.2.4	CHECK FOR FACILITIES CAPABILITIES
3.2	2	O	3.2.5	RESOLVE CONFLICTS	VALIDATED, RESOLVED SCHEDULE	3.2.6	MAINTAIN SHORT TERM SCHEDULES
3.2	2	O	3.2.5	RESOLVE CONFLICTS	RESOLVED COMMANDS	3.3.2	CHECK SCHEDULE CONFLICTS
3.2	2	I	3.2.5	RESOLVE CONFLICTS	COMMANDS REQUIRING NEGOTIATION	3.3.2	CHECK SCHEDULE CONFLICTS
3.2	2	I	3.2.6	MAINTAIN SHORT TERM SCHEDULES	VALIDATED, RESOLVED SCHEDULE	3.2.5	RESOLVE CONFLICTS
3.2	2	O	3.3.2	CHECK SCHEDULE CONFLICTS	COMMANDS REQUIRING NEGOTIATION	3.2.5	RESOLVE COMMANDS
3.2	2	I	3.3.2	CHECK SCHEDULE CONFLICTS	RESOLVED COMMANDS	3.2.5	RESOLVE COMMANDS
3.3	2	O	2.2	CHECK SSDS SERVICE REQUIREMENTS	PAYLOAD COMMANDS TO SSDS SERVICES	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	O	2.3.2	VALIDATE OPERATION	VALID OPERATION COMMANDS	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	I	3.2.5	RESOLVE CONFLICTS	COMMANDS REQUIRING NEGOTIATION	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	O	3.2.5	RESOLVE CONFLICTS	RESOLVED COMMANDS	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	I	3.3.1	TIME TAG OPERATIONS	SCHEDULABLE OPERATIONS/ IMPLEMENTATION COMMAND	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	O	3.3.1	TIME TAG OPERATIONS	TIME TAGGED OPERATIONS	3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE
3.3	2	I	3.3.2	CHECK RESTRICTION/CONSTR-AINTS COMMANDS	PAYLOAD COMMANDS TO SSDS SERVICES	2.2	CHECK SSDS SERVICE REQUIREMENTS
3.3	2	I	3.3.2	CHECK RESTRICTION/CONSTR-AINT COMMANDS	VALID OPERATION COMMANDS	2.3.2	VALIDATE OPERATION
3.3	2	I	3.3.2	CHECK SCHEDULE CONFLICTS	RESOLVED COMMANDS	3.2.5	RESOLVE CONFLICTS
3.3	2	O	3.3.2	CHECK SCHEDULE CONFLICTS	COMMANDS REQUIRING NEGOTIATION	3.2.5	RESOLVE CONFLICTS
3.3	2	O	3.3.2	CHECK RESTRICTION/CONSTR-AINTS COMMAND	SCHEDULABLE OPERATIONS/ IMPLEMENTATION COMMANDS	3.3.1	TIME TAG OPERATIONS
3.3	2	I	3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE	TIME TAGGED OPERATIONS	3.3.1	TIME TAG OPERATIONS
3.3	2	I	3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE	REQUIRED CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.3	2	O	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES	REQUIRED CHANGES	3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE
3.3	2	I	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES	SCHEDULED CORE MODE CHANGES	3.4.3	COMMAND SCHEDULED MODE CHANGE
3.3	2	O	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES	NOTICE OF UNSCHEDULED MODE CHANGES	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
3.3	2	O	3.4.3	COMMAND SCHEDULED MODE CHANGE	SCHEDULED CORE MODE CHANGE	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.3	2	I	5.2.5	ADJUST FOR UNSCHEDULED	NOTICE OF UNSCHEDULED MODE	3.3.4	ADJUST FOR UNSCHEDULED

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				MODE CHANGES	CHANGES		MORE CHANGES
3.4	2	I	2.5.2	CUSTOMER PAYLOAD OPERATIONS	VALID, EXECUTABLE STATION PAYLOAD COMMANDS	3.4.1	SEQUENCE PAYLOAD OPERATIONS
3.4	2	I	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES	SCHEDULED CORE MODE CHANGES	3.4.3	COMMAND SCHEDULED CORE MODE CHANGES
3.4	2	O	3.4.1	SEQUENCE PAYLOAD OPERATIONS	VALID, EXECUTABLE STATION PAYLOAD COMMANDS	2.5.2	CUSTOMER PAYLOAD OPERATIONS
3.4	2	I	3.4.1	SEQUENCE PAYLOAD OPERATIONS	PAYLOAD OPERATIONS TO BE EXECUTED	3.4.4	CHECK FOR EXECUTABILITY
3.4	2	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	CORE MODE COMMANDS	3.4.3	COMMAND SCHEDULED MODE CHANGE
3.4	2	I	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	CORE OPERATIONS TO BE EXECUTED	3.4.4	CHECK FOR EXECUTABILITY
3.4	2	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	VALID, EXECUTABLE CORE COMMANDS	4.0	OPERATE CORE SYSTEMS
3.4	2	O	3.4.3	COMMAND SCHEDULED MODE CHANGES	SCHEDULED CORE MODE CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.4	2	I	3.4.3	COMMAND SCHEDULED MODE CHANGE	CORE MODE COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
3.4	2	O	3.4.4	CHECK FOR EXECUTABILITY	PAYLOAD OPERATIONS TO BE EXECUTED	3.4.1	SEQUENCE PAYLOAD OPERATIONS
3.4	2	O	3.4.4	CHECK FOR EXECUTABILITY	CORE OPERATIONS TO BE EXECUTED	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
3.4	2	I	4.0	OPERATE CORE SYSTEMS	VALID, EXECUTABLE CORE COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.0	1	O	4.1	OPERATE GN & C SYSTEM	CORE AVIONICS DATA	4.4	PROVIDE CUSTOMER AVIONICS SERVICES
4.0	1	I	4.2	OPERATE NON-GN & C CORE SYSTEM	RECONFIGURE, DISCONNECT	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD/CORE SYSTEM
4.0	1	I	4.4	PROVIDE CUSTOMER AVIONICS SERVICES	CORE AVIONICS DATA	4.1	OPERATE GN & C SYSTEM
4.0	1	O	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD/CORE SYSTEM	RECONFIGURE, DISCONNECT	4.2	OPERATE NON-GN & C CORE SYSTEMS
4.1	2	I	2.5	SUPPORT CUSTOMER SYSTEM OPERATION	OMV, OTV STATE	4.1.4	TRAFFIC CONTROL
4.1	2	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	REBOOST	4.1.2	GUIDANCE
4.1	2	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	VALID EXECUTABLE ATTITUDE COMMANDS	4.1.3	ATTITUDE CONTROL
4.1	2	I	4.1.2	GUIDANCE	REBOOST	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.1	2	O	4.1.2	GUIDANCE	PATH VELOCITY COMMANDS	4.1.3	ATTITUDE CONTROL
4.1	2	I	4.1.2	GUIDANCE	COLLISION AVOIDANCE	4.1.4	TRAFFIC CONTROL
4.1	2	O	4.1.2	GUIDANCE	MANEUVERS	4.1.4	TRAFFIC CONTROL
4.1	2	I	4.1.3	ATTITUDE CONTROL	VALID EXECUTABLE ATTITUDE COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.1	2	I	4.1.3	ATTITUDE CONTROL	PATH VELOCITY COMMANDS	4.1.2	GUIDANCE
4.1	2	O	4.1.4	TRAFFIC CONTROL	OMV, OTV STATE	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
4.1	2	I	4.1.4	TRAFFIC CONTROL	MANEUVERS	4.1.2	GUIDANCE
4.1	2	O	4.1.4	TRAFFIC CONTROL	COLLISION AVOIDANCE	4.1.2	GUIDANCE
4.1	2	O	4.1.4	TRAFFIC CONTROL	RANGE	4.1.5	TRACKING
4.1	2	I	4.1.4	TRAFFIC CONTROL	RELATIVE POSITION, VELOCITY	4.1.5	TRACKING
4.1	2	O	4.1.5	TRACKING	RELATIVE POSITION, VELOCITY	4.1.4	TRAFFIC CONTROL

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4.1	2	I	4.1.5	TRACKING	RANGE	4.1.4	TRAFFIC CONTROL
4.1.1	3	O	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION		4.1.1.4	ATTITUDE DETERMINATION
4.1.1	3	O	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION	UPDATED NAVIGATION STATE	4.4.1.1	GROUND TRACK DETERMINATION
4.1.1	3	O	4.1.1.3	DETERMINES EPHEMERIDES	POINTING COORDINATES, RATES	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.1	3	I	4.1.1.4	ATTITUDE DETERMINATION		4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION
4.1.1	3	I	4.1.1.5	NAVIGATION STATE PROPAGATION	VELOCITY INCREMENT SCHEDULES	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.1	3	O	4.1.1.5	NAVIGATION STATE PROPAGATION	PROJECTED STATE HISTORY	4.1.2.3	COLLISION CHECK
4.1.1	3	O	4.1.2.1	REBOOST/REENTRY TARGETING	VELOCITY INCREMENT SCHEDULE	4.1.1.5	NAVIGATION STATE PROPOGATION
4.1.1	3	I	4.1.2.3	COLLISION CHECK	PROJECTED STATE HISTORY	4.1.1.5	NAVIGATION STATE PROPOGATION
4.1.1	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	POINTING COORDINATES, RATES	4.1.1.3	DETERMINE EPHEMERIDES
4.1.1	3	I	4.4.1.1	GROUND TRACK DETERMINATION	UPDATED NAVIGATION STATE	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION
4.1.2	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	VALID, EXECUTABLE MANEUVER COMMAND	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.2	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	EXECUTABLE TETHER CONTROL	4.1.2.5	TETHER CONTROL
4.1.2	3	O	4.1.1.3	DETERMINE EPHEMERIDES	POINTING COORDINATES, RATES	4.1.2.6	DETERMINE PINTING MOUNT CONTROLS
4.1.2	3	I	4.1.1.5	NAVIGATION STATE PROPOGATION	VELOCITY INCREMENT SCHEDULE	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.2	3	O	4.1.1.5	NAVIGATION STATE PROPOGATION	PROJECTED STATE SCHEDULE	4.1.2.3	COLLISION CHECK
4.1.2	3	I	4.1.2.1	REBOOST/REENTRY TARGETING	VALID, EXECUTABLE MANEUVER COMMAND	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.1.2	3	O	4.1.2.1	REBOOST/REENTRY TARGETING	VELOCITY INCREMENT SCHEDULE	4.1.1.5	NAVIGATION STATE PROPAGATION
4.1.2	3	O	4.1.2.1	REBOOST/REENTRY TARGETING	VALID MANEUVER	4.1.2.2	MANEUVER COORDINATION
4.1.2	3	I	4.1.2.1	REBOOST/REENTRY TARGETING	RETARGETING REQUIREMENT	4.1.2.3	COLLISION CHECK
4.1.2	3	I	4.1.2.2	MANEUVER COORDINATION	VALID MANEUVER	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.2	3	O	4.1.2.2	MANEUVER COORDINATION	MANEUVER COMMAND	4.1.2.4	REBOOST/MANEUVER
4.1.2	3	I	4.1.2.2	MANEUVER COORDINATION	TETHER MANEUVER DATA	4.1.2.5	TETHER CONTROL
4.1.2	3	I	4.1.2.3	COLLISION CHECK	PROJECTED STATE SCHEDULE	4.1.1.5	NAVIGATION STATE PROPAGATION
4.1.2	3	O	4.1.2.3	COLLISION CHECK	RETARGETING REQUIREMENT	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.2	3	O	4.1.2.3	COLLISION CHECK	COFLIER MANEUVER REQUIREMENTS	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.2	3	I	4.1.2.3	COLLISION CHECK	STATION AVOIDANCE MANEUVER	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.2	3	I	4.1.2.4	REBOOST/MANEUVER	MANEUVER COMMAND	4.1.2.2	MANEUVER COORDINATION
4.1.2	3	O	4.1.2.4	REBOOST/MANEUVER	DELTA VELOCITY COMMANDS	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.2	3	O	4.1.2.4	REBOOST MANEUVER	DELTA VELOCITY COMMANDS	4.1.3.3	MOMENTUM MANAGEMENT
4.1.2	3	I	4.1.2.5	TETHER CONTROL	EXECUTABLE TETHER CONTROL	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.1.2	3	O	4.1.2.5	TETHER CONTROL	TETHER MANEUVER DATA	4.1.2.2	MANEUVER COORDINATION

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4.1.2	3	I	4.1.2.6	POINTING MOUNT CONTROL	POINTING COORDINATES RATES	4.1.1.3	DETERMINE EPHEMERIDES
4.1.2	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROL	GIMBAL POSITION, RATE	4.1.3.4	POINTING MOUNT CONTROL
4.1.2	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL POSITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.1.2	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL CHANGE REQUESTS	4.2.1.3	POWER SOURCE MANAGEMENT
4.1.2	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	POINTING COORDINATES	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.1.2	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	MAST ALIGNMENT	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.1.2	3	I	4.1.3.1	ATTITUDE AND TRANSITION CONTROL	DELTA VELOCITY COMMANDS	4.1.2.4	REBOOST MANEUVER
4.1.2	3	I	4.1.3.3	MOMENTUM MANAGEMENT	DELTA VELOCITY COMMANDS	4.1.2.4	REBOOST MANEUVER
4.1.2	3	I	4.1.3.4	POINTING MOUNT CONTROL	GIMBAL POSITION, RATE	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2	3	O	4.1.4.5	TARGET COLLISION AVOIDANCE	STATION MANEUVER REQUIREMENTS	4.1.2.3	COLLISION CHECK
4.1.2	3	I	4.1.4.5	TARGET COLLISION AVOIDANCE	COFLIER MANEUVER REQUIREMENTS	4.1.2.3	COLLISION CHECK
4.1.2	3	I	4.2.1.3	POWER SOURCE MANAGMENT	GIMBAL CHANGE REQUESTS	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2	3	O	4.2.1.3	POWER SOURCE MANAGEMENT	POWER SOURCE MANAGEMENT	4.2.1.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2	3	I	4.2.5.6	COMMUNICATION INTERFACE CONTROL	POINTING COORDINATES	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2	3	O	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION	MAST ALIGNMENT	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.3	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	VALID, EXECUTABLE ATTITUDE COMMANDS	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	O	4.1.2.4	REBOOST MANEUVER	DELTA VELOCITY COMMAND	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	O	4.1.2.4	REBOOST MANEUVER	DELTA VELOCITY COMMAND	4.1.3.3	MOMENTUM MANAGEMENT
4.1.3	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL POSITION, RATE	4.1.3.4	POINTING MOUNT CONTROL
4.1.3	3	I	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL	VALID, EXECUTABLE ATTITUDE COMMANDS	3.4.2	SEQUENCE CORE SYSTEMS OPERATIONS
4.1.3	3	I	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL	DELTA VELOCITY COMMAND	4.1.2.4	REBOOST MANEUVER
4.1.3	3	O	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL	ATTITUDE TRANSLATION COMMANDS	4.1.3.2	EFFECTOR CONTROL
4.1.3	3	I	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL	REBOOST ATTITUDE, TORQUE	4.1.3.3	MOMENTUM MANAGEMENT
4.1.3	3	I	4.1.3.2	EFFECTOR CONTROL	ATTITUDE TRANSLATION COMMANDS	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	I	4.1.3.3	MOMENTUM MANAGEMENT	DELTA VELOCITY COMMAND	4.1.2.4	REBOOST MANEUVER
4.1.3	3	O	4.1.3.3	MOMENTUM MANAGEMENT	REBOOST ATTITUDE, TORQUE	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	I	4.1.3.4	POINTING MOUNT CONTROL	GIMBAL POSITION, RATE	4.1.2.6	DETERMINE POINTING MOUNT CONTROL
4.1.4	3	I	2.5.3.3	OTV DEPLOYMENT/RETRIEVAL	OTV NAVIGATION STATE	4.1.4.3	SCHEDULE DEPLOYMENT/ RENDEZVOUS
4.1.4	3	I	2.5.4.3	OMV DEPLOYMENT/RETRIEVAL	OMV NAVIGATION STATE	4.1.4.3	SCHEDULE DEPLOYMENT/ RENDEZVOUS

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4.1.4	3	I	4.1.2.3	COLLISION CHECK	STATION MANEUVER REQUIREMENTS	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.4	3	O	4.1.2.3	COLLISION CHECK	COFLIER MANEUVER REQUIREMENTS	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.4	3	I	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE	VELOCITY INCREMENT SCHEDULE	4.1.4.2	MANAGE CONSTELLATION ORBIT MANEUVERS
4.1.4	3	O	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE	CURRENT, PROJECTED STATE	4.1.4.3	SCHEDULE DEPLOYMENT/RENDEZVOUS
4.1.4	3	O	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE	OBJECT RELATIVE STATE	4.1.4.4	MANAGE RENDEZVOUS
4.1.4	3	I	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE	VELOCITY INCREMENT SCHEDULE	4.1.4.4	MANAGE RENDEZVOUS
4.1.4	3	O	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE	MANEUVER PLAN	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.4	3	I	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE	RANGE, RATE, DIRECTION OBJECT IDENTIFICATION	4.1.5.4	TRACKING DATA CONDITIONING
4.1.4	3	O	4.1.4.2	MANAGE CONSTELLATION ORBIT MANEUVERS	VELOCITY INCREMENT SCHEDULE	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE
4.1.4	3	I	4.1.4.2	MANAGE CONSTELLATION ORBIT MANEUVERS	RETARGETING REQUIREMENTS	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.4	3	O	4.1.4.3	SCHEDULE DEPLOYMENT/RENDEZVOUS	OTV NAVIGATION STATE	2.5.3.3	OTV DEPLOYMENT RETRIEVAL
4.1.4	3	O	4.1.4.3	SCHEDULE DEPLOYMENT RENDEZVOUS	OMV NAVIGATION STATE	2.5.4.3	OMV DEPLOYMENT/RETRIEVAL
4.1.4	3	I	4.1.4.3	SCHEDULE DEPLOYMENT RENDEZVOUS	CURRENT, PROJECTED STATE	4.1.4.1	COMPUTE PROPAGATE CONSTELLATION RELATIVE STATE
4.1.4	3	O	4.1.4.4	MANAGE RENDEZVOUS	VELOCITY INCREMENT SCHEDULE	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE
4.1.4	3	I	4.1.4.4	MANAGE RENDEZVOUS	OBJECT RELATIVE STATE	4.1.4.1	COMPUTE/PROPOGATE CONSTELLATION RELATIVE STATE
4.1.4	3	I	4.1.4.4	MANAGE RENDEZVOUS	RETARGETING REQUIREMENTS	4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.4	3	O	4.1.4.4	MANAGE RENDEZVOUS	RANGE, DIRECTION FORECAST	4.1.5.2	PROXIMITY TRACKING
4.1.4	3	O	4.1.4.5	TARGET COLLISION AVOIDANCE	STATION MANEUVER REQUIREMENTS	4.1.2.3	COLLISION CHECK
4.1.4	3	I	4.1.4.5	TARGET COLLISION AVOIDANCE	COFLIER MANEUVER REQUIREMENTS	4.1.2.3	COLLISION CHECK
4.1.4	3	I	4.1.4.5	TARGET COLLISION AVOIDANCE	MANEUVER PLAN	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE
4.1.4	3	O	4.1.4.5	TARGET COLLISION AVOIDANCE	RETARGETING REQUIREMENTS	4.1.4.2	MANAGE CONSTELLATION ORBIT MANEUVERS
4.1.4	3	O	4.1.4.5	TARGET COLLISION AVOIDANCE	RETARGETING REQUIREMENTS	4.1.4.4	MANAGE RENDEZVOUS
4.1.4	3	I	4.1.5.2	PROXIMITY TRACKING	RANGE, DIRECTION FORECAST	4.1.4.4	MANAGE RENDEZVOUS
4.1.4	3	O	4.1.5.4	TRACKING DATA CONDITIONING	RANGE, RATE, DIRECTION OBJECT IDENTIFICATION	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE
4.1.5	3	I	4.1.4.1	COMPUTE/PROPOGATE CONSTELLATION RELATIVE STATE	RANGE, RATE DIRECTION, OBJECT IDENTIFICATION	4.1.5.4	TRACKING DATA CONDITIONING
4.1.5	3	O	4.1.4.4	MANAGE RENDEZVOUS	RANGE, DIRECTION FORECAST	4.1.5.2	PROXIMITY TRACKING
4.1.5	3	I	4.1.5.1	LONG RANGE OBJECT TRACKING	OBJECT TRACK LIST	4.1.5.3	OBJECT CATALOGUE MAINTENANCE
4.1.5	3	O	4.1.5.1	LONG RANGE OBJECT TRACKING	OBJECT IDENTIFICATION	4.1.5.4	TRACKING DATA CONDITIONING
4.1.5	3	I	4.1.5.2	PROXIMITY TRACKING	RANGE, DIRECTION FORECAST	4.1.4.4	MANAGE RENDEZVOUS

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4.1.5	3	O	4.1.5.2	PROXIMITY TRACKING	OBJECT IDENTIFICATION	4.1.5.4	TRACKING DATA CONDITIONING
4.1.5	3	O	4.1.5.3	OBJECT CATALOGUE MAINTENANCE	OBJECT TRACK LIST	4.1.5.1	LONG RANGE OBJECT TRACKING
4.1.5	3	O	4.1.5.4	TRACKING DATA CONDITIONING	RANGE, RATE, DIRECTION OBJECT IDENTIFICATION	4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATE
4.1.5	3	I	4.1.5.4	TRACKING DATA CONDITIONING	OBJECT IDENTIFICATION	4.1.5.1	LONG RANGE OBJECT TRACKING
4.1.5	3	I	4.1.5.4	TRACKING DATA CONDITIONING	OBJECT IDENTIFICATION	4.1.5.2	PROXIMITY TRACKING
4.1.6	3	O	2.3.2	VALIDATE CORE COMMANDS	COMMAND, DATA	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	O	3.4.2	SEQUENCE OPERATIONS	CORE COMMANDS	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.1	TIME-SOURCE MANAGEMENT	SOURCE SELECTION COMMAND	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.2	TIME UPDATE	UPDATE REQUEST	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.3	FREQUENCY SOURCE MANGEMENT	SOURCE SELECTION COMMAND	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.4	DEVICE MANAGEMENT	SEQUENCE, STATUS REQUEST	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.5	COMMAND INTERFACE PROCESSING	COMMAND, DATA	2.3.2	AUTHORIZE OPERATION
4.1.6	3	I	4.1.6.5	COMMAND INTERFACE PROCESSING	CORE COMMANDS	3.4	SEQUENCE OPERATIONS
4.1.6	3	O	4.1.6.5	COMMAND INTERFACE PROCESSING	SOURCE SELECTION COMMAND	4.1.6.1	TIME-SOURCE MANAGEMENT
4.1.6	3	O	4.1.6.5	COMMAND INTERFACE PROCESSING	UPDATE REQUEST	4.1.6.2	TIME UPDATE
4.1.6	3	O	4.1.6.5	COMMAND INTERFACE PROCESSING	SOURCE SELECTION COMMAND	4.1.6.3	FREQUENCY SOURCE MANAGEMENT
4.1.6	3	O	4.1.6.5	COMMAND INTERFACE PROCESSING	SEQUENCE, STATUS REQUEST	4.1.6.4	DEVICE MANAGEMENT
4.2	2	I	4.2.1	OPERATE POWER SYSTEM	RECONFIGURE, DISCONNECT	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD, CORE SYSTEM
4.2	2	O	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD, CORE SYSTEM	RECONFIGURE, DISCONNECT	4.2.1	OPERATE POWER SYSTEM
4.2.1	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	LOAD CONNECTION	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL POSITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL CHANGE REQUESTS	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	4.2.1.1	EVALUATE ARRAY PERFORMANCE	REFERENCE OUPUT	4.2.1.5	PROJECT ENERGY AVAILABLE
4.2.1	3	O	4.2.1.1	EVALUATE ARRAY PERFORMANCE	POWER	4.2.1.5	PROJECT ENERGY AVAILABLE
4.2.1	3	I	4.2.1.2	CONFIGURE POWER DISTRIBUTION	LOAD CONNECTION	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.2.1	3	O	4.2.1.2	CONFIGURE POWER DISTRIBUTION	ELECTRICAL LOAD FORECAST, ABNORMAL POWER CONDITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	4.2.1.2	CONFIGURE POWER DISTRIBUTION	POWER PROFILE, LOAD SHEDDING	4.2.1.3	POWER SOURCE MANAGEMENT

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4.2.1	3	I	4.2.1.2	CONFIGURE POWER DISTRIBUTION	RECONFIGURE/DISCONNECT	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD/CORE SYSTEM
4.2.1	3	I	4.2.1.3	POWER SOURCE MANAGEMENT	GIMBAL POSITION	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.2.1	3	O	4.2.1.3	POWER SOURCE MANAGEMENT	GIMBAL CHANGE REQUESTS	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.2.1	3	I	4.2.1.3	POWER SOURCE MANAGEMENT	ELECTRICAL LOAD FORECAST, ABNORMAL POWER CONDITION	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	4.2.1.3	POWER SOURCE MANAGEMENT	POWER PROFILE, LOAD SHEDDING	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	I	4.2.1.5	PROJECT ENERGY AVAILABLE	POWER	4.2.1.1	EVALUATE ARRAY PERFORMANCE
4.2.1	3	O	4.2.1.5	PROJECT ENERGY AVAILABLE	REFERENCE OUTPUT	4.2.1.1	EVALUATE ARRAY
4.2.1	3	O	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD/CORE SYSTEM	RECONFIGURE/DISCONNECT	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.2	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS		4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	I	4.2.2.1	MANAGE THERMAL LOAD		3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.2.2	3	I	4.2.2.1	MANAGE THERMAL LOAD	DIAGNOSTICS	4.2.2.2	DEVICE MANAGEMENT (EXPERT DMS)
4.2.2	3	O	4.2.2.2	DEVICE MANAGEMENT (EXPERT DMS)	DIAGNOSTICS	4.2.2.1	MANAGE THERMAL LOAD
4.2.3	3	I	4.2.3.2	MRMS OPERATION	POSITION, ORIENTATION	4.2.3.3	MANAGE BERTHING/DOCKING
4.2.3	3	O	4.2.3.3	MANAGE BERTHING	POSITION, ORIENTATION	4.2.3.2	MRMS OPERATING
4.2.4	3	O	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION	CIRCULATION REQUIREMENTS	4.2.4.2	CONTROL TEMPERATURE HUMIDITY
4.2.4	3	I	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION	ATMOSPHERIC TEMPERATURE HUMIDITY	4.2.4.2	CONTROL TEMPERATURE HUMIDITY
4.2.4	3	O	4.2.4.2	CONTROL TEMPERATURE HUMIDITY	ATMOSPHERIC TEMPERATURE, HUMIDITY	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION
4.2.4	3	I	4.2.4.2	CONTROL TEMPERATURE HUMIDITY	CIRCULATION REQUIREMENTS	4.2.4.1	CONTROL ATMOSPHERIC PRESSURE, COMPOSITION
4.2.4	3	O	4.2.4.5	FIRE DETECTION AND CONTROL	PRESSURE SHELL PENETRATION FIRE ALERT	4.3.2.1	CAUTION AND WARNING
4.2.4	3	I	4.3.2.1	CAUTION AND WARNING	PRESSURE SHELL PENETRATION FIRE ALERT	4.2.4.5	FIRE DETECTION AND CONTROL
4.2.5	3	O	1.1.3	MONITOR REALTIME DATA	LINK REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	I	1.1.3	MONITOR REALTIME DATA	LINK AVAILABILITY	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	I	1.2.3	MONITOR DELAYED DATA	LINK AVAILABILITY	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	O	1.2.3	MONITOR DELAYED DATA	LINK REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATION	EXECUTABLE COMMUNICATION COMMANDS	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROL	POINTING COORDINATES	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5	3	O	4.2.5.1	COMMUNICATION NETWORK CONTROL	CONFIGURATION, MODE COMMAND	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5	3	I	4.2.5.1	COMMUNICATION NETWORK CONTROL	VALIDATED COMMANDS	4.2.5.5	COMMAND PROCESSING
4.2.5	3	I	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL	CONFIGURATION, MODE COMMAND	4.2.5.1	COMMUNICATION NETWORK CONTROL
4.2.5	3	I	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL	CONTROL SIGNAL RESPONSE	4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING
4.2.5	3	I	4.2.5.2	COMMUNICATION EQUIPMENT	DIAGNOSTICS, RECONFIGURATION	4.2.5.4	FAILURE DETECTION AND

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				CONTROL	COMMANDS		RECOVERY
4.2.5	3	O	4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING	CONTROL SIGNAL RESPONSE	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5	3	O	4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING	FAILURE INDICATOR	4.2.5.4	FAILURE DETECTION AND RECOVERY
4.2.5	3	O	4.2.5.4	FAILURE DETECTION AND RECOVERY	DIAGNOSTICS, RECONFIGURATION COMMANDS	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5	3	I	4.2.5.4	FAILURE DETECTION AND RECOVERY	FAILURE INDICATOR	4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING
4.2.5	3	I	4.2.5.4	FAILURE DETECTION AND RECOVERY	RECOVERY PROCEDURE	4.2.5.5	COMMAND PROCESSING
4.2.5	3	O	4.2.5.5	COMMAND PROCESSING	VALIDATED COMMANDS	4.2.5.1	COMMUNICATION NETWORK CONTROL
4.2.5	3	O	4.2.5.5	COMMAND PROCESSING	RECOVERY PROCEDURE	4.2.5.4	FAILURE DETECTION AND RECOVERY
4.2.5	3	O	4.2.5.5	COMMAND PROCESSING	COMMUNICATION COMMAND DISPOSITION	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5	3	I	4.2.5.5	COMMAND PROCESSING	COMMUNICATION COMMANDS	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5	3	O	4.2.5.5	COMMAND PROCESSING	TELEMETRY COMMANDS	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	I	4.2.5.6	COMMUNICATION INTERFACE CONTROL	EXECUTABLE COMMUNICATION COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATION
4.2.5	3	I	4.2.5.6	COMMUNICATION INTERFACE CONTROL	POINTING COORDINATES	4.1.2.6	POINTING MOUNT CONTROL
4.2.5	3	O	4.2.5.6	COMMUNICATION INTERFACE CONTROL	COMMUNICATION COMMANDS	4.2.5.5	COMMAND PROCESSING
4.2.5	3	I	4.2.5.6	COMMUNICATION INTERFACE CONTROL	COMMUNICATION COMMAND DISPOSITION	4.2.5.5	COMMAND PROCESSING
4.2.5	3	O	4.2.5.6	COMMUNICATION INTERFACE CONTROL	TELEMETRY REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	I	4.2.5.7	TELEMETRY CONTROL	LINK REQUIREMENTS	1.1.3	MONITOR REALTIME DATA
4.2.5	3	O	4.2.5.7	TELEMETRY CONTROL	LINK AVAILABILITY	1.1.3	MONITOR REALTIME DATA
4.2.5	3	I	4.2.5.7	TELEMETRY CONTROL	LINK REQUIREMENTS	1.2.3	MONITOR DELAYED DATA
4.2.5	3	O	4.2.5.7	TELEMETRY CONTROL	LINK AVAILABILITY	1.2.3	MONITOR DELAYED DATA
4.2.5	3	I	4.2.5.7	TELEMETRY CONTROL	TELEMETRY COMMANDS	4.2.5.5	COMMAND PROCESSING
4.2.5	3	I	4.2.5.7	TELEMETRY CONTROL	TELEMETRY REQUIREMENTS	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.3	2	O	1.1.1	ACQUIRE REALTIME DATA	CREW PRIVATE COMMUNICATIONS	4.3.3	HABITABILITY
4.3	2	I	1.1.1	ACQUIRE REALTIME DATA	CREW PRIVATE COMMUNICATIONS	4.3.3	HABITABILITY
4.3	2	I	4.0	OPERATE CORE SYSTEM	AUTOMATIC EMERGENCY COMMANDS	4.3.2	SPACE STATION SAFETY
4.3	2	O	4.3.2	SPACE STATION SAFETY	AUTOMATIC EMERGENCY COMMANDS	4.0	OPERATE CORE SYSTEM
4.3	2	I	4.3.2	SPACE STATION SAFETY	ABNORMAL AND EMERGENCY CONDITION DATA	4.5.1	MONITOR CORE SYSTEM STATUS
4.3	2	I	4.3.2	SPACE STATION SAFETY	ABNORMAL AND EMERGENCY CONDITION DATA	4.5.2	MONITOR CUSTOMER STATUS SYSTEM
4.3	2	O	4.3.3	HABITABILITY	CREW PRIVATE COMMUNICATIONS	1.1.1	CAPTURE REALTIME DATA
4.3	2	I	4.3.3	HABITABILITY	CREW PRIVATE COMMUNICATIONS	1.1.1	CAPTURE REALTIME DATA
4.3	2	I	4.3.4	EVA SUPPORT	PROCEDURES	4.3.5	OPERATIONS AND PROCEDURES SUPPORT
4.3	2	O	4.3.5	OPERATION AND PROCEDURES SUPPORT	PROCEDURES	4.3.4	EVA SUPPORT
4.3	2	O	4.5.1	MONITOR CORE SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITION DATA	4.3.2	SPACE STATION SAFETY
4.3	2	O	4.5.2	MONITOR CUSTOMER SYSTEM	ABNORMAL AND EMERGENCY	4.3.2	SPACE STATION SAFETY

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				STATUS	CONDITION DATA		
4.3.1	3	O	4.3.1.1	CREW PHYSIOLOGICAL MONITORING	ABNORMAL PHYSIOLOGICAL DATA	4.3.1.2	MEDICAL DIAGNOSTICS SUPPORT
4.3.1	3	I	4.3.1.2	MEDICAL DIAGNOSTICS SUPPORT	ABNORMAL PHYSIOLOGICAL READINGS	4.3.1.1	CREW PHYSIOLOGICAL MONITORING
4.3.1	3	O	4.3.1.2	MEDICAL DIAGNOSTICS SUPPORT	DIAGNOSES, SYMPTOMS	4.3.1.3	TREATMENT SUPPORT
4.3.1	3	I	4.3.1.3	TREATMENT SYMPTOMS	DIAGNOSES, SYMPTOMS	4.3.1.2	MEDICAL DIAGNOSTICS SUPPORT
4.3.2	3	I	4.0	OPERATE CORE SYSTEMS	AUTOMATIC EMERGENCY COMMANDS	4.3.2.3	AUTOMATIC CONTROL PROCESSING
4.3.2	3	O	4.2.4.5	FIRE DETECTION AND CONTROL	PRESSURE SHELL PENETRATION, FIRE ALERT	4.3.2.1	CAUTION AND WARNING
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	PRESSURE SHELL PENETRATION, FIRE ALERT	4.2.4.5	FIRE DETECTION AND CONTROL
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.1	MONITOR CORE SYSTEM STATUS
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE
4.3.2	3	O	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY AUTOMATIC PROCEDURES	4.3.2.3	AUTOMATIC CONTROL PROCESSING
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.1	MONITOR CORE SYSTEM STATUS
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITION DATA	4.5.1	MONITOR CORE SYSTEM STATUS
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL CONDITIONS	4.5.4.1	FAULT ANALYSIS
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	PAYLOAD SYSTEM, FAULT	4.5.5	SYSTEM TEST AND EVALUATION
4.3.2	3	O	4.3.2.3	AUTOMATIC CONTROL PROCESSING	AUTOMATIC EMERGENCY COMMANDS	4.0	OPERATOR CORE SYSTEMS
4.3.2	3	I	4.3.2.3	AUTOMATIC CONTROL PROCESSING	ABNORMAL AND EMERGENCY AUTOMATIC PROCEDURES	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.1	MONITOR CORE SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.3.2	3	O	4.5.1	MONITOR CORE SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.2	MONITOR CUSTOMER SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.3.2	3	O	4.5.2	MONITOR CUSTOMER SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.3.2	3	O	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	AHBNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.4.1	FAULT ANALYSIS	ABNORMAL CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.5	SYSTEM TEST AND EVALUATION	PAYLOAD SYSTEM, FAULT	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.3	3	O	1.1.1	CAPTURE REALTIME DATA	CREW PRIVATE VOICE, VIDEO	4.3.3.2	CREW/GROUND COMMUNICATION

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4.3.3	3	I	1.1.1	CAPTURE REALTIME DATA	CREW PRIVATE VOICE, VIDEO	4.3.3.2	CREW/GROUND COMMUNICATION
4.3.3	3	I	4.3.3.2	CREW/GROUND COMMUNICATION	CREW PRIVATE VOICE, VIDEO	1.1.1	CAPTURE REALTIME DATA
4.3.3	3	O	4.3.3.2	CREW/GROUND COMMUNICATION	CREW PRIVATE VOICE, VIDEO	1.1.1	CAPTURE REALTIME
4.3.4	3	I	4.3.4.6	EVA VISUAL INFORMATION	INSTRUCTION FOR RELEVANT EVA PROCEDURES	4.3.5	OPERATIONS & PROCEDURE SUPPORT
4.3.4	3	I	4.3.4.6	EVA VISUAL INFORMATION	EVA MAINTENANCE AND REPAIR PROCEDURES	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES
4.3.4	3	O	4.3.5	OPERATIONS AND PROCEDURES SUPPORT	INSTRUCTION FOR RELEVANT EVA PROCEDURES	4.3.4.6	EVA VISUAL INFORMATION
4.3.4	3	O	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES	EVA MAINTENANCE AND REPAIR PROCEDURES	4.3.4.6	EVA VISUAL INFORMATION
4.3.5	3	I	2.6	SSPE CHECKOUT AND SERVICING	SSPE MAINTENANCE AND REPAIR PROCEDURES	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES
4.3.5	3	I	4.3.4.6	EVA VISUAL INFORMATION	EVA MAINTENANCE AND REPAIR PROCEDURES	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES
4.3.5	3	I	4.3.4.6	EVA VISUAL INFORMATION	EVA OPERATIONS PROCEDURES	4.3.5.2	OPERATIONS PROCEDURES
4.3.5	3	O	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES	SSPE MAINTENANCE AND REPAIR PROCEDURES	2.6	SSPE CHECKOUT AND SERVICING
4.3.5	3	O	4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES	EVA MAINTENANCE AND REPAIR PROCEDURES	4.3.4.6	EVA VISUAL INFORMATION
4.3.5	3	O	4.3.5.2	OPERATIONS PROCEDURES	EVA OPERATIONS PROCEDURES	4.3.4.6	EVA VISUAL INFORMATION
4.3.5	3	O	4.3.5.4	GENERAL PURPOSE PROGRAMMING LANGUAGE	OPERATING SOFTWARE	4.3.5.5	UPDATE SYSTEM SOFTWARE
4.3.5	3	I	4.3.5.5	UPDATE SYSTEM SOFTWARE	OPERATING SOFTWARE	4.3.5.4	GENERAL PURPOSE PROGRAMMING LANGUAGE
4.4.1	3	O	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION	UPDATED NAVIGATION STATE	4.4.1.1	GROUND TRACK DETERMINATION
4.4.1	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROL	COORDINATE ALIGNMENT RELIEF	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.4.1	3	I	4.4.1.1	GROUND TRACK DETERMINATION	UPDATED NAVIGATION STATE	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION
4.4.1	3	O	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION	COORDINATE ALIGNMENT RELIEF	4.1.2.6	DETERMINE POINTING MOUNT CONTROL
4.5	2	O	4.0	OPERATE CORE SYSTEM	TEST RESPONSES	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	I	4.0	OPERATE CORE SYSTEM	TEST ROUTINES	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5	2	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS
4.5	2	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE
4.5	2	I	4.3.2.1	CAUTION AND WARNING	PAYLOAD SYSTEM FAULT	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL CONDITIONS	4.5.4	DIAGNOSTICS SUPPORT
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY	PAYLOAD SYSTEM FAULT	4.5.5	SYSTEM TEST AND

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				PROCEDURES			EVALUATION
4.5	2	O	4.5.1	MONITOR CORE SYSTEMS STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.5	2	O	4.5.1	MONITOR CORE SYSTEMS STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	O	4.5.1	MONITOR CORE SYSTEMS STATUS	OUT OF TOLERANCE CONDITIONS	4.5.4	DIAGNOSTICS SUPPORT
4.5	2	O	4.5.1	MONITOR CORE SYSTEMS STATUS	REQUIRED SYSTEM TEST	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	O	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.5	2	O	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	O	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.5	2	O	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	O	4.5.4	DIAGNOSTICS SUPPORT	ABNORMAL CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	I	4.5.4	DIAGNOSTICS SUPPORT	OUT OF TOLERANCE CONDITIONS	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5	2	O	4.5.5	SYSTEM TEST AND EVALUATION	TEST ROUTINES	4.0	OPERATE CORE SYSTEM
4.5	2	I	4.5.5	SYSTEM TEST AND EVALUATION	TEST RESPONSES	4.0	OPERATE CORE SYSTEM
4.5	2	O	4.5.5	SYSTEM TEST AND EVALUATION	PAYLOAD SYSTEM FAULT	4.3.2.1	CAUTION AND WARNING
4.5	2	O	4.5.5	SYSTEM TEST AND EVALUATION	PAYLOAD SYSTEM FAULT	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	I	4.5.5	SYSTEM TEST AND EVALUATION	REQUIRED SYSTEM TEST	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5.4	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL CONDITIONS	4.5.1	FAULT ANALYSIS
4.5.4	3	O	4.5.1	MONITOR CORE SYSTEMS STATUS	OUT OF TOLERANCE CONDITION	4.5.4.1	FAULT ANALYSIS
4.5.4	3	O	4.5.4.1	FAULT ANALYSIS	ABNORMAL CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5.4	3	I	4.5.4.1	FAULT ANALYSIS	OUT OF TOLERANCE CONDITION	4.5.4.1	MONITOR CORE SYSTEMS STATUS
4.5.4	3	O	4.5.4.1	FAULT ANALYSIS	NON-STANDARD FAULT	4.5.4.2	FAULT CORRECTION
4.5.4	3	O	4.5.4.1	FAULT ANALYSIS	ELEMENTS TO BE ANALYZED	4.5.4.3	TREND ANALYSIS
4.5.4	3	I	4.5.4.1	FAULT ANALYSIS	ABNORMAL TRENDS	4.5.4.3	TREND ANALYSIS
4.5.4	3	I	4.5.4.2	FAULT CORRECTION	NON-STANDARD FAULT	4.5.4.1	FAULT ANALYSIS
4.5.4	3	I	4.5.4.3	TREND ANALYSIS	ELEMENTS TO BE ANALYZED	4.5.4.1	FAULT ANALYSIS
4.5.4	3	O	4.5.4.3	TREND ANALYSIS	ABNORMAL TRENDS	4.5.4.1	FAULT ANALYSIS
5.0	1	I	4.2	OPERATE NON-GN & C CORE SYSTEMS	RECONFIGURE, DISCONNECT	5.1	MANAGE FLIGHT SYSTEM FACILITIES
5.0	1	O	5.1	MANAGE FLIGHT SYSTEM FACILITIES	RECONFIGURE, DISCONNECT	4.2	OPERATE NON-GN & C CORE SYSTEM
5.0	1	I	5.1	MANAGE FLIGHT SYSTEM FACILITIES	TDRSS SCHEDULED	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	O	5.1	MANAGE FLIGHT SYSTEM FACILITIES	TDRSS REQUEST	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	I	5.2	MANAGE GROUND SYSTEM	TDRSS REQUEST	5.1	MANAGE FLIGHT SYSTEM

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				FACILITIES			FACILITIES
5.0	1	O	5.2	MANAGE GROUND SYSTEM FACILITIES	TDRSS SCHEDULED	5.1	MANAGE FLIGHT SYSTEM FACILITIES
5.2	2	O	1.3.4	QUALITY VERIFICATION	DATA STATUS	5.2.1	INTERFACE MANAGEMENT
5.2	2	O	3.3.4P	ADJUST FOR UNSCHEDULED MODE CHANGES	NOTICE OF UNSCHEDULED MODE CHANGES	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
5.2	2	I	5.2.1	INTERFACE MANAGEMENT	DATA STATUS	1.3.4	QUALITY VERIFICATION
5.2	2	O	5.2.1	INTERFACE MANAGEMENT	SCHEDULE STATUS	5.2.2	SCHEDULE STATUS COMPARE
5.2	2	O	5.2.1	INTERFACE MANAGEMENT		5.2.2	SCHEDULE STATUS COMPARE
5.2	2	I	5.2.1	INTERFACE MANAGEMENT		5.2.3	TRANSMIT RECONFIGURATION SCHEDULE
5.2	2	I	5.2.2	SCHEDULE STATUS COMPARE		5.2.1	INTERFACE MANAGEMENT
5.2	2	I	5.2.2	SCHEDULE STATUS COMPARE	SCHEDULE STATUS	5.2.1	INTERFACE MANAGEMENT
5.2	2	O	5.2.2	SCHEDULE STATUS COMPARE	CONFLICTS	5.2.3	TRANSMIT RECONFIGURATION SCHEDULE
5.2	2	O	5.2.3	TRANSMIT RECONFIGURATION SCHEDULE		5.2.1	INTERFACE MANAGEMENT
5.2	2	I	5.2.3	TRANSMIT RECONFIGURATION SCHEDULE	CONFLICTS	5.2.2	SCHEDULE STATUS COMPARE
5.2	2	O	5.2.3	TRANSMIT RECONFIGURATION SCHEDULE	RECONFIGURE	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
5.2	2	O	5.2.4	GROUND STATUS DATABASE MANAGEMENT	CONFIGURATION STATUS, USAGE	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
5.2	2	I	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES	NOTICE OF UNSCHEDULED MODE CHANGES	3.3.4P	ADJUST FOR UNSCHEDULED MODE CHANGES
5.2	2	I	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES	RECONFIGURE	5.2.3	TRANSMIT RECONFIGURATION SCHEDULE
5.2	2	I	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES	CONFIGURATION STATUS, USAGE	5.2.4	GROUND STATUS DATABASE MANAGEMENT
6.0	1	O	6.1	INTERPET MODEL REQUEST	COMMUNICATION MODEL REQUIREMENTS SOFTWARE DIAGNOSTICS	6.2	DEVELOP COMMUNICATION MODEL CONFIGURATION
6.0	1	O	6.1	INTERPRET MODEL REQUESTS	HARDWARE MODEL REQUIREMENTS	6.4	DEVELOP HARDWARE INTEGRATION CONFIGURATION
6.0	1	O	6.1	INTERPRET MODEL REQUESTS	SOFTWARE MODEL REQUIREMENTS	6.6	DEVELOP SOFTWARE INTEGRATION CONFIGURATION
6.0	1	O	6.1	INTERPRET MODEL REQUESTS	TRAINING EXERCISE REQUIREMENTS	6.8	DEVELOP TRAINING EXERCISE CONFIGURATION
6.0	1	I	6.2	DEVELOP COMMUNICATION MODEL CONFIGURATION	COMMUNICATION MODEL REQUIREMENTS SOFTWARE DIAGNOSTICS	6.1	INTERPRET MODEL REQUESTS
6.0	1	O	6.2	DEVELOP COMMUNICATION MODEL CONFIGURATION	COMMUNICATIONS CONFIGURATION	6.3	SIMULATE SPACE STATION SYSTEM COMM. ELEMENTS
6.0	1	I	6.3	SIMULATE SPACE SYSTEM COMMUNICATION ELEMENTS	COMMUNICATION CONFIGURATION	6.2	DEVELOP COMMUNICATION MODEL CONFIGURATION
6.0	1	O	6.3	SIMULATE SPACE STATION SYSTEM COMM. ELEMENTS	SIMULATED SPACE STATION COMMUNICATION	6.5	SIMULATE SPACE STATION ELEMENTS
6.0	1	I	6.3	SIMULATE SPACE STATION SYSTEM COMM. ELEMENTS	SIMULATED SPACE STATION COMMUNICATION	6.5	SIMULATE SPACE STATION ELEMENTS
6.0	1	I	6.4	DEVELOP HARDWARE INTEGRATION CONFIGURATION	HARDWARE MODEL REQUIREMENTS	6.1	INTERPRET MODEL REQUESTS
6.0	3	O	6.4	DEVELOP HARDWARE INTEGRATION CONFIGURATION	HARDWARE INTEGRATION CONFIGURATION	6.5	SIMULATE SPACE STATION ELEMENTS
6.0	1	I	6.5	SIMULATED SPACE STATION ELEMENTS	SIMULATED SPACE STATION COMMUNICATION	6.3	SIMULATE SPACE STATION SYSTEM COMM. ELEMENTS
6.0	1	I	6.5	SIMULATE SPACE STATION	SIMULATED SPACE STATION	6.3	SIMULATE SPACE STATION

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				ELEMENTS	COMMUNICATION		SYSTEM COMM. ELEMENTS
6.0	1	I	6.5	SIMULATE SPACE STATION ELEMENTS	HARDWARE INTEGRATION CONFIGURATION	6.4	DEVELOP HARDWARE INTEGRATION
6.0	1	I	6.6	DEVELOP SOFTWARE INTEGRATION CONFIGURATION	SOFTWARE MODEL REQUIREMENTS	6.1	INTERPRET MODEL REQUESTS
6.0	1	O	6.6	DEVELOP SOFTWARE INTEGRATION CONFIGURATION	SOFTWARE INTEGRATION CONFIGURATION	6.7	SIMULATE SPACE STATION PROCESSORS
6.0	1	I	6.7	SIMULATE SPACE STATION PROCESSORS	SOFTWARE INTEGRATION CONFIGURATION	6.6	DEVELOP SOFTWARE INTEGRATION CONFIGURATION
6.0	1	I	6.8	DEVELOP TRAINING EXERCISE CONFIGURATION	TRAINING EXERCISE REQUIREMENTS	6.1	INTERPRET MODEL REQUESTS
6.8	2	O	6.1	INTERPRET MODEL REQUESTS	TRAINING EXERCISE REQUIREMENTS	6.8.1	DEFINE TRAINING PLAN
6.8	2	I	6.8.1	DEFINE TRAINING PLAN	TRAINING EXERCISE REQUIREMENTS	6.1	INTERPRET MODEL REQUESTS
6.8	2	O	6.8.1	DEFINE TRAINING PLAN	TRAINING EXERCISE	6.8.2	DEFINE TRAINING SCRIPT
6.8	2	I	6.8.2	DEFINE TRAINING SCRIPT	TRAINING EXERCISE	6.8.1	DEFINE TRAINING PLAN
6.8	2	O	6.8.2	DEFINE TRAINING SCRIPT	MODEL REQUIREMENTS	6.8.3	DEFINE MODEL REQUIREMENTS
6.8	2	O	6.8.2	DEFINE TRAINING SCRIPT	SIMULATION REQUIREMENTS	6.8.4	CONFIGURE SIMULATION
6.8	2	O	6.8.2	DEFINE TRAINING SCRIPT	TIMELINE, CONDITIONS	6.8.5	CONDUCT TRAINING EXERCISE
6.8	2	O	6.8.2	DEFINE TRAINING SCRIPT	TRAINING OBJECTIVES	6.8.6	EVALUATE OPERATOR PERFORMANCE
6.8	2	I	6.8.3	DEFINE MODEL REQUIREMENTS	MODEL REQUIREMENTS	6.8.2	DEFINE TRAINING SCRIPT
6.8	2	I	6.8.4	CONFIGURE SIMULATION	SIMULATION REQUIREMENTS	6.8.2	DEFINE TRAINING SCRIPT
6.8	2	O	6.8.4	CONFIGURE SIMULATION	SIMULATION	6.8.5	CONDUCT TRAINING EXERCISE
6.8	2	I	6.8.5	CONDUCT TRAINING EXERCISE	TIMELINE, CONDITIONS	6.8.2	DEFINE TRAINING SCRIPT
6.8	2	I	6.8.5	CONDUCT TRAINING EXERCISE	SIMULATION	6.8.4	CONFIGURE SIMULATION
6.8	2	O	6.8.5	CONDUCT TRAINING EXERCISE	EXERCISE RESULTS	6.8.6	EVALUATE OPERATOR PERFORMANCE
6.8	2	I	6.8.6	EVALUATE OPERATOR PERFORMANCE	TRAINING OBJECTIVES	6.8.2	DEFINE TRAINING SCRIPT
6.8	2	I	6.8.6	EVALUATE OPERATOR PERFORMANCE	EXERCISE RESULTS	6.8.5	CONDUCT TRAINING EXERCISE
6.8	2	O	6.8.6	EVALUATE OPERATOR PERFRMANCE	OPERATOR PERFORMANCE EVALUATION	6.8.7	MAINTAIN OPERATOR TRAINING STATUS
6.8	2	I	6.8.7	MAINTAIN OPERATOR TRAINING STATUS	OPERATOR PERFORMANCE EVALUATION	6.8.6	EVALUATE OPERATOR PERFORMANCE
6.9	2	O	6.9.1	CONFIGURATION CONTROL AND MANAGEMENT SUPPORT	RELEASE DEFINITIONS,APPROVALS	6.9.4	BUILD & DELIVERY
6.9	2	I	6.9.1	CONFIGURATION CONTROL AND MANAGEMENT SUPPORT	BUILD RESULTS	6.9.4	BUILD & DELIVERY
6.9	2	I	6.9.2	REQUIREMENT ANALYSIS & GENERATION TOOLS	BASELINED REQUIREMENTS	6.9.6	DOCUMENTATION
6.9	2	O	6.9.2	REQUIREMENT ANALYSIS & GENERATION TOOLS	REQUIREMENTS UPDATES	6.9.6	DOCUMENTATION
6.9	2	I	6.9.3	DESIGN & CODE GENERATION	REQUIREMENTS, BASELINED PROGRAM DOCUMENT	6.9.6	DOCUMENTATION
6.9	2	O	6.9.3	DESIGN & CODE GENERATION	PROGRAM DOCUMENT UPDATES	6.9.6	DOCUMENTATION
6.9	2	I	6.9.3	DESIGN & CODE GENERATION	REQUIREMENTS BASELINED PROGRAM DOCUMENT	6.9.7	COMMUNICATION
6.9	2	O	6.9.4	BUILD & DELIVERY	BUILD RESULTS	6.9.1	CONFIGURATION CONTROL AND MANAGEMENT SUPPORT
6.9	2	I	6.9.4	BUILD & DELIVERY	RELEASE DEFINITION, APPROVALS	6.9.1	CONFIGURATION CONTROL AND MANAGEMENT SUPPORT

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
6.9	2	I	6.9.4	BUILD & DELIVERY	STRUCTURE	6.9.6	DOCUMENTATION
6.9	2	O	6.9.4	BUILD & DELIVERY	STRUCTURE	6.9.6	DOCUMENTATION
6.9	2	I	6.9.4	BUILD & DELIVERY	RECONFIGURATION DATA	6.9.8	RECONFIGURATION DATA MANAGEMENT
6.9	2	O	6.9.5	TESTING & ANALYSIS	TEST RESULTS	6.9.6	DOCUMENTATION
6.9	2	I	6.9.5	TESTING & ANALYSIS	TEST	6.9.6	DOCUMENTATION
6.9	2	I	6.9.6	DOCUMENTATION	REQUIREMENTS UPDATES	6.9.2	REQUIREMENT ANALYSIS & GENERATION TOOLS
6.9	2	O	6.9.6	DOCUMENTATION	BASELINED REQUIREMENTS	6.9.2	REQUIREMENT ANALYSIS & GENERATION TOOLS
6.9	2	O	6.9.6	DOCUMENTATION	REQUIREMENTS, BASELINED PROGRAM DOCUMENT	6.9.3	DESIGN & CODE GENERATION
6.9	2	I	6.9.6	DOCUMENTATION	PROGRAM DOCUMENT UPDATES	6.9.3	DESIGN & CODE GENERATION
6.9	2	O	6.9.6	DOCUMENTATION	STRUCTURE	6.9.4	BUILD & DELIVERY
6.9	2	I	6.9.6	DOCUMENTATION	STRUCTURE	6.9.4	BUILD & DELIVERY
6.9	2	O	6.9.6	DOCUMENTATION	TEST	6.9.5	TESTING & ANALYSIS
6.9	2	I	6.9.6	DOCUMENTATION	TEST RESULTS	6.9.5	TESTING & ANALYSIS
6.9	2	O	6.9.8	RECONFIGURATION DATA MANAGEMENT	RECONFIGURATION DATA	6.9.4	BUILD & DELIVERY
7.1	2	O	7.1.2	DETERMINE EFFECTS ON INTEGRATED PLAN	EFFECTS ON PLANS	7.1.3	ANALYZE AFFECTED PLANS
7.1	2	I	7.1.3	ANALYZE AFFECTED PLANS	EFFECTS ON PLANS	7.1.2	DETERMINE EFFECTS ON INTEGRATED PLAN

E.4P Process to Process Data Flows (Platform)

The process-to-process data flows, shown in this section, are the primary measure of interconnection for realtime data flow and the consequences of collecting or separating functions. The data entries are similar to those of Section E.3.

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
1.0	1	O	1.1	MANAGE REALTIME DATA RETURN	REALTIME DATA	1.3	DATA DISTRIBUTION
1.0	1	O	1.2	MANAGE DELAYABLE DATA RETURN	DELAYED DATA	1.3	DATA DISTRIBUTION
1.0	1	I	1.3	DATA DISTRIBUTION	REALTIME DATA	1.1	MANAGE REALTIME DATA RETURN
1.0	1	I	1.3	DATA DISTRIBUTION	DELAYED DATA	1.2	MANAGE DELAYABLE DATA RETURN
1.0	1	O	1.3	DATA DISTRIBUTION	CUSTOMER DATA	1.4	MANAGE DELIVERABLE DATA
1.0	1	O	1.3	DATA DISTRIBUTION	OPERATOR DATA	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	I	1.4	MANAGE DELIVERABLE CUSTOMER DATA	CUSTOMER DATA	1.3	DATA DISTRIBUTION
1.0	1	I	1.4	MANAGE DELIVERABLE CUSTOMER DATA	ADDITIONAL ANCILLARY DATA	1.5	MANAGE DELIVERABLE CORE DATA
1.0	1	I	1.5	MANAGE DELIVERABLE CORE DATA	OPERATOR DATA	1.3	DATA DISTRIBUTION
1.0	1	O	1.5	MANAGE DELIVERABLE CORE DATA	ADDITIONAL ANCILLARY DATA	1.4	MANAGE DELIVERABLE CUSTOMER DATA
1.1	2	O	1.1.1	ACQUIRE REALTIME DATA	REALTIME DATA AVAILABLE	1.1.2	PRIORITIZE REALTIME DATA
1.1	2	I	1.1.2	PRIORITIZE REALTIME DATA	REALTIME DATA AVAILABLE	1.1.1	ACQUIRE REALTIME DATA
1.1	2	O	1.1.2	PRIORITIZE REALTIME DATA	REALTIME DATA	1.1.5	FORMAT REALTIME DATA
1.1	2	O	1.1.3	MONITOR REALTIME DATA	DISPATCH SCHEDULE	1.1.4	DISPATCH REALTIME DATA
1.1	2	O	1.1.3	MONITOR REALTIME DATA	LINK REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
1.1	2	I	1.1.3	MONITOR REALTIME DATA	LINK AVAILABILITY	4.2.5.7	TELEMETRY CONTROL
1.1	2	I	1.1.4	DISPATCH REALTIME DATA	DISPATCH SCHEDULE	1.1.3	MONITOR REALTIME DATA
1.1	2	I	1.1.4	DISPATCH REALTIME DATA	FORMATTED DATA AVAILABLE	1.1.5	FORMAT REALTIME DATA
1.1	2	O	1.1.4	DISPATCH REALTIME DATA	REALTIME DATA	1.3.1	PREPROCESSING
1.1	2	I	1.1.5	FORMAT REALTIME DATA	REALTIME DATA	1.1.2	PRIORITIZE REALTIME DATA
1.1	2	O	1.1.5	FORMAT REALTIME DATA	FORMATTED DATA AVAILABLE	1.1.4	DISPATCH REALTIME DATA
1.1	2	I	1.3.1	PREPROCESSING	REALTIME DATA	1.1.4	DISPATCH REALTIME DATA
1.1	2	O	4.2.5.7	TELEMETRY CONTROL	LINK AVAILABILITY	1.1.3	MONITOR REALTIME DATA
1.1	2	I	4.2.5.7	TELEMETRY CONTROL	LINK REQUIREMENTS	1.1.3	MONITOR REALTIME DATA
1.2	2	O	1.2.2	PRIORITIZE DELAYED DATA	TRANSMISSION PRIORITIES	1.2.4	DISPATCH DELAYED DATA
1.2	2	O	1.2.3	MONITOR DELAYED DATA	DISPATCH SCHEDULE	1.2.4	DISPATCH DELAYED DATA
1.2	2	I	1.2.3	MONITOR DELAYED DATA	LINK AVAILABILITY	4.2.5.7	TELEMETRY CONTROL
1.2	2	O	1.2.3	MONITOR DELAYED DATA	LINK REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
1.2	2	I	1.2.4	DISPATCH DELAYED DATA	TRANSMISSION PRIORITIES	1.2.2	PRIORITIZE DELAYED DATA
1.2	2	I	1.2.4	DISPATCH DELAYED DATA	DISPATCH SCHEDULE	1.2.3	MONITOR DELAYED DATA
1.2	2	O	1.2.4	DISPATCH DELAYED DATA	BULK DATA	1.3.2	GENERAL DATA CAPTURE
1.2	2	I	1.3.2	DATA CAPTURE	BULK DATA	1.2.4	DISPATCH DELAYED DATA
1.2	2	I	4.2.5.7	TELEMETRY CONTROL	LINK REQUIREMENTS	1.2.3	MONITOR DELAYED DATA
1.2	2	O	4.2.5.7	TELEMETRY CONTROL	LINK AVAILABILITY	1.2.3	MONITOR DELAYED DATA
1.5	2	I	1.3.3	ROUTING AND TRANSMISSION	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	O	1.3.3	ROUTING AND TRANSMISSION	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	O	1.3.3	ROUTING AND TRANSMISSION	CORE DATA	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	I	1.3.3	ROUTING AND TRANSMISSION	RETRANSMISSION REQUEST	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	RETRANSMISSION REQUEST	1.3.3	ROUTING AND TRANSMISSION
1.5	2	I	1.5.1	CORE DATA INTERFACE	OPERATOR VOICE, VIDEO	1.3.3	ROUTING AND TRANSMISSION

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
				MANAGEMENT	COMMUNICATION		
1.5	2	I	1.5.1	CORE DATA INTERFACE MANAGEMENT	CORE DATA	1.3.3	ROUTING AND TRANSMISSION
1.5	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	OPERATOR VOICE, VIDEO COMMUNICATION	1.3.3	ROUTING AND TRANSMISSION
1.5	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	CORE DATA	1.5.2	CORE DATA CAPTURE
1.5	2	I	1.5.1	CORE DATA INTERFACE MANAGEMENT	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.4	DISPLAYS AND CONTROLS
1.5	2	O	1.5.1	CORE DATA INTERFACE MANAGEMENT	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.4	DISPLAYS AND CONTROLS
1.5	2	I	1.5.2	CORE DATA CAPTURE	CORE DATA	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	O	1.5.2	CORE DATA CAPTURE	OPERATOR REALTIME DATA	1.5.3	CORE DATA PROCESSING
1.5	2	I	1.5.3	DATA EXTRACTION	OPERATOR REALTIME DATA	1.5.2	CORE DATA CAPTURE
1.5	2	O	1.5.3	DATA EXTRACTION	PROCESSED CORE DATA	1.5.4	DISPLAYS AND CONTROLS
1.5	2	O	1.5.4	DISPLAYS AND CONTROLS	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	I	1.5.4	DISPLAYS AND CONTROLS	OPERATOR VOICE, VIDEO COMMUNICATION	1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5	2	I	1.5.4	DISPLAYS AND CONTROLS	PROCESSED CORE DATA	1.5.3	DATA EXTRACTION
2.0	1	O	2.1	VALIDATE PAYLOAD COMMANDS /DATA	VALID PAYLOAD COMMANDS	2.2	CHECK PLATFORM COMMAND RESTRICTION/CONSTRAINT
2.0	1	I	2.2	CHECK PLATFORM COMMAND RESTRICTION/CONSTRAINT	VALID PAYLOAD COMMANDS	2.1	VALIDATE PAYLOAD COMMANDS /DATA
2.0	1	O	2.2	CHECK PLATFORM COMMAND RESTRICTION/CONSTRAINT	VALID CUSTOMER/OPERATOR CONTROL COMMANDS, DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	O	2.2	CHECK PLATFORM COMMAND RESTRICTION/CONSTRAINT	PAYLOAD COMMANDS TO PLATFORM SERVICES	3.3.2	CHECK SCHEDULE CONFLICTS
2.0	1	O	2.3	VALIDATE CORE COMMANDS/ DATA	VALID OPERATOR COMMANDS	3.3.2	CHECK SCHEDULE CONFLICTS
2.0	1	O	2.3	VALIDATE CORE COMMANDS/ DATA	NON-RESTRICTED CORE COMMANDS, VALID CORE DATA	4.0	OPERATE CORE SYSTEM
2.0	1	O	2.4	PROVIDE ANCILLARY DATA	ANCILLARY DATA	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
2.0	1	I	2.5	SUPPORT CUSTOMER SYSTEM OPERATIONS	VALID CUSTOMER/OPERATOR CONTROL COMMANDS, DATA	2.2	CHECK PLATFORM COMMAND RESTRICTION/CONSTRAINT
2.0	1	I	2.5	SUPPORT CUSTOMER SYSTEM OPERATIONS	ANCILLARY DATA	2.4	PROVIDE ANCILLARY DATA
2.0	1	I	3.3.2	CHECK SCHEDULE CONFLICTS	RESTRICTED/CONSTRAINED PAYLOAD COMMANDS	2.2	CHECK PLATFORM COMMAND RESTRICTION/CONSTRAINT
2.0	1	I	3.3.2	CHECK SCHEDULE CONFLICTS	VALID OPERATOR COMMANDS	2.3	VALIDATE CORE COMMANDS/ DATA
2.0	1	I	4.0	OPERATE CORE SYSTEMS	NON-RESTRICTED CORE COMMANDS, VALID CORE DATA	2.3	VALIDATE CORE COMMANDS/ DATA
2.3	2	O	2.3.1	AUTHORIZE OPERATOR	OPERATOR AUTHORIZATION	2.3.2	AUTHORIZE OPERATION
2.3	2	I	2.3.2	AUTHORIZE OPERATION	OPERATOR AUTHORIZATION	2.3.1	AUTHORIZE OPERATOR
2.3	2	O	2.3.2	AUTHORIZE OPERATION	VALID OPERATOR COMMANDS	3.3.2	CHECK RESTRICTED/ CONSTRAINED COMMANDS
2.3	2	O	2.3.2	AUTHORIZE OPERATION	NON-RESTRICTED CORE COMMANDS, VALID CORE DATA	4.0	OPERATE CORE SYSTEM
2.3	2	O	2.3.2	AUTHORIZE OPERATION	FACILITIES COMMANDS	5.1.3.2	COMMAND INTERFACE PROCESSING
2.3	2	I	3.3.2	CHECK RESTRICTED/	VALID OPERATOR COMMANDS	2.3.2	AUTHORIZE OPERATION

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
				CONSTRAINED COMMANDS			
2.3	2	I	4.0	OPERATE CORE SYSTEM	NON-RESTRICTED CORE COMMANDS, VALID CORE DATA	2.3.2	AUTHORIZE OPERATION
2.3	2	I	5.1.3.2	COMMAND INTERFACE PROCESSING	FACILITIES COMMANDS	2.3.2	AUTHORIZE OPERATION
2.5	2	O	2.2	CHECK PLATFORM P/L CMD RESTRICTION/CONSTRAINT	VALID CUSTOMER/OPERATOR CONTROL COMMANDS, DATA	2.5.2	CUSTOMER PAYLOAD OPERATIONS
2.5	2	O	2.4	PROVICE ANCILLARY DATA	ANCILLARY STATUS DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	I	2.5.1	CUSTOMER DATA PROCESSING	ANCILLARY STATUS DATA	2.4	PROVIDE ANCILLARY DATA
2.5	2	O	2.5.1	CUSTOMER DATA PROCESSING	PROCESSED OPERATING DATA	2.5.2	CUSTOMER PAYLOAD OPERATIONS
2.5	2	I	2.5.2	CUSTOMER PAYLOAD OPERATIONS	VALID CUSTOMER/OPERATOR CONTROL COMMANDS, DATA	2.2	CHECK PAYLOAD COMMAND RESTRICTION/CONSTRAINT
2.5	2	I	2.5.2	CUSTOMER PAYLOAD OPERATIONS	PROCESSED OPERATING DATA	2.5.1	CUSTOMER DATA PROCESSING
2.5	2	I	2.5.2	CUSTOMER PAYLOAD OPERATIONS	VALID, EXECUTABLE OPERATING COMMANDS	3.4.1	SEQUENCE PAYLOAD OPERATIONS
2.5	2	O	3.4.1	SEQUENCE PAYLOAD OPERATIONS	VALID, EXECUTABLE OPERATING COMMANDS	2.5.2	CUSTOMER PAYLOAD OPERATIONS
3.0	1	O	2.2	CHECK PLATFORM P/L CMD RESTRICTION/CONSTRAINT	PAYLOAD COMMANDS TO PLATFORM SERVICES	3.3	DEVELOP OPERATING EVENTS SCHEDULE
3.0	1	O	2.3.2	VALIDATE OPERATION	VALID OPERATIONS COMMANDS	3.3	DEVELOP OPERATING EVENTS SCHEDULE
3.0	1	O	3.2	DEVELOP SHORT TERM SCHEDULES	RESOLVED COMMANDS	3.3	DEVELOP OPERATING EVENTS SCHEDULES
3.0	1	I	3.2	DEVELOP SHORT TERM SCHEDULES	COMMANDS REQUIRING NEGOTIATION	3.3	DEVELOP OPERATING EVENTS SCHEDULE
3.0	1	I	3.3	DEVELOP OPERATING EVENTS SCHEDULE	PAYLOAD COMMANDS TO PLATFORM SERVICES	2.2	CHECK PLATFORM P/L CMD RESTRICTION/CONSTRAINT
3.0	1	I	3.3	DEVELOP OPERATING EVENTS SCHEDULE	VALID OPERATIONS COMMANDS	2.3.2	VALIDATE OPERATION
3.0	1	O	3.3	DEVELOP OPERATING EVENT SCHEDULE	COMMANDS REQUIRING NEGOTIATION	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	I	3.3	DEVELOP OPERATING EVENTS SCHEDULE	RESOLVED COMMANDS	3.2	DEVELOP SHORT TERM SCHEDULES
3.0	1	O	3.4	SEQUENCE OPERATIONS	VALID, EXECUTABLE CORE COMMANDS	4.0	OPERATE CORE SYSTEMS
3.0	1	I	4.0	OPERATE CORE SYSTEMS	VALID, EXECUTABLE CORE COMMANDS	3.4	SEQUENCE OPERATIONS
3.2	2	O	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES	NEW/REVISED OPERATIONS	3.2.2	INCORPERATED NEW/REVISED OPERATIONS
3.2	2	O	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES	BASELINE SCHEDULE	3.2.3	CHECK FOR CONFLICTS
3.2	2	I	3.2.2	INCORPERATE NEW/REVISED OPERATION	NEW/REVISED OPERATIONS	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	I	3.2.3	CHECK FOR CONFLICTS	BASELINE SCHEDULE	3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2	2	O	3.2.3	CHECK FOR CONFLICTS	SCHEDULE WITH CONFLICTS	3.2.4	CHECK FOR FACILITIES CAPABILITIES
3.2	2	I	3.2.3	CHECK FOR CONFLICTS	RESOLVED SCHEDULE	3.2.5	RESOLVE CONFLICTS
3.2	2	I	3.2.4	CHECK FOR FACILITIES	SCHEDULE WITH CONFLICTS	3.2.3	CHECK FOR CONFLICTS
3.2	2	O	3.2.4	CHECK FOR FACILITIES CAPABILITIES	SCHEDULE WITH RESOURCES AND CONFLICTS	3.2.5	RESOLVE CONFLICTS
3.2	2	O	3.2.5	RESOLVE CONFLICTS	RESOLVED SCHEDULE	3.2.3	CHECK FOR CONFLICTS

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
3.2	2	I	3.2.5	RESOLVE CONFLICTS	SCHEDULE WITH RESOURCES AND CONFLICTS	3.2.4	CHECK FOR FACILITIES CAPABILITIES
3.2	2	O	3.2.5	RESOLVE CONFLICTS	VALIDATED, RESOLVED SCHEDULE	3.2.6	MAINTAIN SHORT TERM SCHEDULES
3.2	2	O	3.2.5	RESOLVE CONFLICTS	RESOLVED COMMANDS	3.3.2	CHECK SCHEDULE CONFLICTS
3.2	2	I	3.2.5	RESOLVE CONFLICTS	COMMANDS REQUIRING NEGOTIATION	3.3.2	CHECK SCHEDULE CONFLICTS
3.2	2	I	3.2.6	MAINTAIN SHORT TERM SCHEDULES	VALIDATED, RESOLVED SCHEDULE	3.2.5	RESOLVE CONFLICTS
3.2	2	I	3.3.2	CHECK SCHEDULE CONFLICTS	RESOLVED COMMANDS	3.2.5	RESOLVE COMMANDS
3.2	2	O	3.3.2	CHECK SCHEDULE CONFLICTS	COMMANDS REQUIRING NEGOTIATION	3.2.5	RESOLVE COMMANDS
3.3	2	O	2.2	CHECK PLATFORM P/L CMD RESTRICTION/CONSTRAINT	PAYLOAD COMMANDS TO PLATFORM SERVICES	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	O	2.3.2	VALIDATE OPERATION	VALID OPERATION COMMANDS	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	I	3.2.5	RESOLVE CONFLICTS	COMMANDS REQUIRING NEGOTIATION	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	O	3.2.5	RESOLVE CONFLICTS	RESOLVED COMMANDS	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	I	3.3.1	TIME TAG OPERATIONS	SCHEDULABLE OPERATIONS/ IMPLEMENTATION COMMAND	3.3.2	CHECK SCHEDULE CONFLICTS
3.3	2	O	3.3.1	TIME TAG OPERATIONS	TIME TAGGED OPERATIONS	3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE
3.3	2	I	3.3.2	CHECK RESTRICTION/CONSTR-AINTS COMMANDS	PAYLOAD COMMANDS TO PLATFORM SERVICES	2.2	CHECK PLATFORM P/L CMD RESTRICTION/CONSTRAINT
3.3	2	I	3.3.2	CHECK RESTRICTION/CONSTR-AINT COMMANDS	VALID OPERATION COMMANDS	2.3.2	VALIDATE OPERATION
3.3	2	O	3.3.2	CHECK SCHEDULE CONFLICTS	COMMANDS REQUIRING NEGOTIATION	3.2.5	RESOLVE CONFLICTS
3.3	2	I	3.3.2	CHECK SCHEDULE CONFLICTS	RESOLVED COMMANDS	3.2.5	RESOLVE CONFLICTS
3.3	2	O	3.3.2	CHECK RESTRICTION/CONSTR-AINTS COMMAND	SCHEDULABLE OPERATIONS/ IMPLEMENTATION COMMANDS	3.3.1	TIME TAG OPERATIONS
3.3	2	I	3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE	TIME TAGGED OPERATIONS	3.3.1	TIME TAG OPERATIONS
3.3	2	I	3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE	REQUIRED CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.3	2	O	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES	REQUIRED CHANGES	3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE
3.3	2	I	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES	SCHEDULED CORE MODE CHANGES	3.4.3	COMMAND SCHEDULED MODE CHANGE
3.3	2	O	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES	NOTICE OF UNSCHEDULED MODE CHANGES	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
3.3	2	O	3.4.3	COMMAND SCHEDULED MODE CHANGE	SCHEDULED CORE MODE CHANGE	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.3	2	I	5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES	NOTICE OF UNSCHEDULED MODE CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MORE CHANGES
3.4	2	I	2.5.2	CUSTOMER PAYLOAD OPERATIONS	VALID, EXECUTABLE PLATFORM PAYLOAD COMMANDS	3.4.1	SEQUENCE PAYLOAD OPERATIONS
3.4	2	I	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES	SCHEDULED CORE MODE CHANGES	3.4.3	COMMAND SCHEDULED CORE MODE CHANGES
3.4	2	O	3.4.1	SEQUENCE PAYLOAD OPERATIONS	VALID, EXECUTABLE PLATFORM PAYLOAD COMMANDS	2.5.2	CUSTOMER PAYLOAD OPERATIONS
3.4	2	I	3.4.1	SEQUENCE PAYLOAD OPERATIONS	PAYLOAD OPERATIONS TO BE EXECUTED	3.4.4	CHECK FOR EXECUTABILITY
3.4	2	O	3.4.2	SEQUENCE CORE SYSTEM	CORE MODE COMMANDS	3.4.3	COMMAND SCHEDULED MODE

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
				OPERATIONS			CHANGE
3.4	2	I	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	CORE OPERATIONS TO BE EXECUTED	3.4.4	CHECK FOR EXECUTABILITY
3.4	2	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	VALID, EXECUTABLE CORE COMMANDS	4.0	OPERATE CORE SYSTEMS
3.4	2	O	3.4.3	COMMAND SCHEDULED MODE CHANGES	SCHEDULED CORE MODE CHANGES	3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.4	2	I	3.4.3	COMMAND SCHEDULED MODE CHANGE	CORE MODE COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
3.4	2	O	3.4.4	CHECK FOR EXECUTABILITY	PAYLOAD OPERATIONS TO BE EXECUTED	3.4.1	SEQUENCE PAYLOAD OPERATIONS
3.4	2	O	3.4.4	CHECK FOR EXECUTABILITY	CORE OPERATIONS TO BE EXECUTED	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
3.4	2	I	4.0	OPERATE CORE SYSTEMS	VALID, EXECUTABLE CORE COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.0	1	O	4.1	OPERATE GN & C SYSTEM	CORE AVIONICS DATA	4.4	PROVIDE CUSTOMER AVIONICS SERVICES
4.0	1	I	4.2	OPERATE NON-GN & C CORE SYSTEM	RECONFIGURE, DISCONNECT	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD/CORE SYSTEM
4.0	1	I	4.4	PROVIDE CUSTOMER AVIONICS SERVICES	CORE AVIONICS DATA	4.1	OPERATE GN & C SYSTEM
4.0	1	O	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD/CORE SYSTEM	RECONFIGURE, DISCONNECT	4.2	OPERATE NON-GN & C CORE SYSTEMS
4.1	2	I	2.5	SUPPORT CUSTOMER SYSTEM OPERATION	OMV, OTV STATE	4.1.4	TRAFFIC CONTROL
4.1	2	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	REBOOST	4.1.2	GUIDANCE
4.1	2	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	VALID EXECUTABLE ATTITUDE COMMANDS	4.1.3	ATTITUDE CONTROL
4.1	2	I	4.1.2	GUIDANCE	REBOOST	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.1	2	O	4.1.2	GUIDANCE	PATH VELOCITY COMMANDS	4.1.3	ATTITUDE CONTROL
4.1	2	O	4.1.2	GUIDANCE	MANEUVERS	4.1.4	TRAFFIC CONTROL
4.1	2	I	4.1.2	GUIDANCE	COLLISION AVOIDANCE	4.1.4	TRAFFIC CONTROL
4.1	2	I	4.1.3	ATTITUDE CONTROL	VALID EXECUTABLE ATTITUDE COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.1	2	I	4.1.3	ATTITUDE CONTROL	PATH VELOCITY COMMANDS	4.1.2	GUIDANCE
4.1	2	O	4.1.4	TRAFFIC CONTROL	OMV, OTV STATE	2.5	SUPPORT CUSTOMER SYSTEM OPERATION
4.1	2	I	4.1.4	TRAFFIC CONTROL	MANEUVERS	4.1.2	GUIDANCE
4.1	2	O	4.1.4	TRAFFIC CONTROL	COLLISION AVOIDANCE	4.1.2	GUIDANCE
4.1	2	I	4.1.4	TRAFFIC CONTROL	RELATIVE POSITION, VELOCITY	4.1.5	TRACKING
4.1	2	O	4.1.4	TRAFFIC CONTROL	RANGE	4.1.5	TRACKING
4.1	2	I	4.1.5	TRACKING	RANGE	4.1.4	TRAFFIC CONTROL
4.1	2	O	4.1.5	TRACKING	RELATIVE POSITION, VELOCITY	4.1.4	TRAFFIC CONTROL
4.1.1	3	O	4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION		4.1.1.4	ATTITUDE DETERMINATION
4.1.1	3	O	4.1.1.3	DETERMINES EPHEMERIDES	POINTING COORDINATES, RATES	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.1	3	I	4.1.1.4	ATTITUDE DETERMINATION		4.1.1.1	SPACECRAFT STATE/ORBIT DETERMINATION
4.1.1	3	I	4.1.1.5	NAVIGATION STATE PROPAGATION	VELOCITY INCREMENT SCHEDULES	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.1	3	O	4.1.2.1	REBOOST/REENTRY TARGETING	VELOCITY INCREMENT SCHEDULE	4.1.1.5	NAVIGATION STATE

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4.1.1	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	POINTING COORDINATES, RATES	4.1.1.3	PROPOGATION DETERMINE EPHEMERIDES
4.1.2	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	VALID, EXECUTABLE MANEUVER COMMAND	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.2	3	O	4.1.1.3	DETERMINE EPHEMERIDES	POINTING COORDINATES, RATES	4.1.2.6	DETERMINE PINTING MOUNT CONTROLS
4.1.2	3	I	4.1.1.5	NAVIGATION STATE PROPOGATION	VELOCITY INCREMENT SCHEDULE	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.2	3	I	4.1.2.1	REBOOST/REENTRY TARGETING	VALID, EXECUTABLE MANEUVER COMMAND	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.1.2	3	O	4.1.2.1	REBOOST/REENTRY TARGETING	VELOCITY INCREMENT SCHEDULE	4.1.1.5	NAVIGATION STATE PROPAGA-TION
4.1.2	3	O	4.1.2.1	REBOOST/REENTRY TARGETING	VALID MANEUVER	4.1.2.2	MANEUVER COORDINATION
4.1.2	3	I	4.1.2.2	MANEUVER COORDINATION	VALID MANEUVER	4.1.2.1	REBOOST/REENTRY TARGETING
4.1.2	3	O	4.1.2.2	MANEUVER COORDINATION	MANEUVER COMMAND	4.1.2.4	REBOOST/MANEUVER
4.1.2	3	I	4.1.2.4	REBOOST/MANEUVER	MANEUVER COMMAND	4.1.2.2	MANEUVER COORDINATION
4.1.2	3	O	4.1.2.4	REBOOST/MANEUVER	DELTA VELOCITY COMMANDS	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.2	3	O	4.1.2.4	REBOOST MANEUVER	DELTA VELOCITY COMMANDS	4.1.3.3	MOMENTUM MANAGEMENT
4.1.2	3	I	4.1.2.6	POINTING MOUNT CONTROL	POINTING COORDINATES RATES	4.1.1.3	DETERMINE EPHEMERIDES
4.1.2	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROL	GIMBAL POSITION, RATE	4.1.3.4	POINTING MOUNT CONTROL
4.1.2	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL CHANGE REQUESTS	4.2.1.3	POWER SOURCE MANAGEMENT
4.1.2	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL POSITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.1.2	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	POINTING COORDINATES	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.1.2	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	COORDINATE ALIGNMENT REFERENCE	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.1.2	3	I	4.1.3.1	ATTITUDE AND TRANSITION CONTROL	DELTA VELOCITY COMMANDS	4.1.2.4	REBOOST MANEUVER
4.1.2	3	I	4.1.3.3	MOMENTUM MANAGEMENT	DELTA VELOCITY COMMANDS	4.1.2.4	REBOOST MANEUVER
4.1.2	3	I	4.1.3.4	POINTING MOUNT CONTROL	GIMBAL POSITION, RATE	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2	3	O	4.2.1.3	POWER SOURCE MANAGEMENT	GIMBAL POSITION	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2	3	I	4.2.1.3	POWER SOURCE MANAGMENT	GIMBAL CHANGE REQUESTS	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2	3	I	4.2.5.6	COMMUNICATION INTERFACE CONTROL	POINTING COORDINATES	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2	3	O	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION	COORDINATE ALIGNMENT REFERENCE	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.3	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	VALID, EXECUTABLE ATTITUDE COMMANDS	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	O	4.1.2.4	REBOOST MANEUVER	DELTA VELOCITY COMMAND	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	O	4.1.2.4	REBOOST MANEUVER	DELTA VELOCITY COMMAND	4.1.3.3	MOMENTUM MANAGEMENT
4.1.3	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL POSITION, RATE	4.1.3.4	POINTING MOUNT CONTROL
4.1.3	3	I	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL	VALID, EXECUTABLE ATTITUDE COMMANDS	3.4.2	SEQUENCE CORE SYSTEMS OPERATIONS
4.1.3	3	I	4.1.3.1	ATTITUDE AND TRANSLATION	DELTA VELOCITY COMMAND	4.1.2.4	REBOOST MANEUVER

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4.1.3	3	O	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL	ATTITUDE TRANSLATION COMMANDS	4.1.3.2	EFFECTOR CONTROL
4.1.3	3	I	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL	REBOOST ATTITUDE, TORQUE	4.1.3.3	MOMENTUM MANAGEMENT
4.1.3	3	I	4.1.3.2	EFFECTOR CONTROL	ATTITUDE TRANSLATION COMMANDS	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	I	4.1.3.3	MOMENTUM MANAGEMENT	DELTA VELOCITY COMMAND	4.1.2.4	REBOOST MANEUVER
4.1.3	3	O	4.1.3.3	MOMENTUM MANAGEMENT	REBOOST ATTITUDE, TORQUE	4.1.3.1	ATTITUDE AND TRANSLATION CONTROL
4.1.3	3	I	4.1.3.4	POINTING MOUNT CONTROL	GIMBAL POSITION, RATE	4.1.2.6	DETERMINE POINTING MOUNT CONTROL
4.1.6	3	O	2.3.2	VALIDATE CORE COMMANDS	COMMAND, DATA	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	O	3.4.2	SEQUENCE OPERATIONS	CORE COMMANDS	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.1	TIME-SOURCE MANAGEMENT	SOURCE SELECTION COMMAND	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.2	TIME UPDATE	UPDATE REQUEST	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.3	FREQUENCY SOURCE MANGE-MENT	SOURCE SELECTION COMMAND	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.4	DEVICE MANAGEMENT	SEQUENCE, STATUS REQUEST	4.1.6.5	COMMAND INTERFACE PROCESSING
4.1.6	3	I	4.1.6.5	COMMAND INTERFACE PROCESSING	COMMAND, DATA	2.3.2	AUTHORIZE OPERATION
4.1.6	3	I	4.1.6.5	COMMAND INTERFACE PROCESSING	CORE COMMANDS	3.4.2	SEQUENCE OPERATIONS
4.1.6	3	O	4.1.6.5	COMMAND INTERFACE PROCESSING	SOURCE SELECTION COMMAND	4.1.6.1	TIME-SOURCE MANAGEMENT
4.1.6	3	O	4.1.6.5	COMMAND INTERFACE PROCESSING	UPDATE REQUEST	4.1.6.2	TIME UPDATE
4.1.6	3	O	4.1.6.5	COMMAND INTERFACE PROCESSING	SOURCE SELECTION COMMAND	4.1.6.3	FREQUENCY SOURCE MANAGE-MENT
4.1.6	3	O	4.1.6.5	COMMAND INTERFACE PROCESSING	SEQUENCE, STATUS REQUEST	4.1.6.4	DEVICE MANAGEMENT
4.2	2	I	4.2.1	OPERATE POWER SYSTEM	RECONFIGURE, DISCONNECT	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD, CORE SYSTEM
4.2	2	O	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD, CORE SYSTEM	RECONFIGURE, DISCONNECT	4.2.1	OPERATE POWER SYSTEM
4.2.1	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS	LOAD CONNECTION	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL POSITION	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS	GIMBAL CHANGE REQUESTS	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	O	4.2.1.1	EVALUATE ARRAY PERFORMANCE	POWER	4.2.1.5	PROJECT ENERGY AVAILABLE
4.2.1	3	I	4.2.1.1	EVALUATE ARRAY PERFORMANCE	REFERENCE OUPUT	4.2.1.5	PROJECT ENERGY AVAILABLE
4.2.1	3	I	4.2.1.2	CONFIGURE POWER DISTRIBU-TION	LOAD CONNECTION	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.2.1	3	O	4.2.1.2	CONFIGURE POWER DISTRIBUTION	ELECTRICAL LOAD FORECAST, ABNORMAL POWER CONDITION	4.2.1.3	POWER SOURCE MANAGEMENT

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4.2.1	3	I	4.2.1.2	CONFIGURE POWER DISTRIBUTION	POWER PROFILE, LOAD SHEDDING	4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1	3	I	4.2.1.2	CONFIGURE POWER DISTRIBUTION	RECONFIGURE/DISCONNECT	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD/CORE SYSTEM
4.2.1	3	O	4.2.1.3	POWER SOURCE MANAGEMENT	GIMBAL CHANGE REQUESTS	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.2.1	3	I	4.2.1.3	POWER SOURCE MANAGEMENT	GIMBAL POSITION	4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.2.1	3	I	4.2.1.3	POWER SOURCE MANAGEMENT	ELECTRICAL LOAD FORECAST, ABNORMAL POWER CONDITION	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	O	4.2.1.3	POWER SOURCE MANAGEMENT	POWER PROFILE, LOAD SHEDDING	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1	3	I	4.2.1.5	PROJECT ENERGY AVAILABLE	POWER	4.2.1.1	EVALUATE ARRAY PERFORMANCE
4.2.1	3	O	4.2.1.5	PROJECT ENERGY AVAILABLE	REFERENCE OUTPUT	4.2.1.1	EVALUATE ARRAY
4.2.1	3	O	5.1.2.6	RECONFIGURE/DISCONNECT PAYLOAD/CORE SYSTEM	RECONFIGURE/DISCONNECT	4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.2	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATIONS		4.2.2.1	MANAGE THERMAL LOAD
4.2.2	3	I	4.2.2.1	MANAGE THERMAL LOAD		3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
4.2.2	3	I	4.2.2.1	MANAGE THERMAL LOAD	DIAGNOSTICS	4.2.2.2	DEVICE MANAGEMENT (EXPERT DMS)
4.2.2	3	O	4.2.2.2	DEVICE MANAGEMENT (EXPERT DMS)	DIAGNOSTICS	4.2.2.1	MANAGE THERMAL LOAD
4.2.5	3	O	1.1.3	MONITOR REALTIME DATA	LINK REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	I	1.1.3	MONITOR REALTIME DATA	LINK AVAILABILITY	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	O	1.2.3	MONITOR DELAYED DATA	LINK REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	I	1.2.3	MONITOR DELAYED DATA	LINK AVAILABILITY	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	O	3.4.2	SEQUENCE CORE SYSTEM OPERATION	EXECUTABLE COMMUNICATION COMMANDS	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5	3	O	4.1.2.6	DETERMINE POINTING MOUNT CONTROL	POINTING COORDINATES	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5	3	O	4.2.5.1	COMMUNICATION NETWORK CONTROL	CONFIGURATION, MODE COMMAND	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5	3	I	4.2.5.1	COMMUNICATION NETWORK CONTROL	VALIDATED COMMANDS	4.2.5.5	COMMAND PROCESSING
4.2.5	3	I	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL	CONFIGURATION, MODE COMMAND	4.2.5.1	COMMUNICATION NETWORK CONTROL
4.2.5	3	I	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL	CONTROL SIGNAL RESPONSE	4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING
4.2.5	3	I	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL	DIAGNOSTICS, RECONFIGURATION COMMANDS	4.2.5.4	FAILURE DETECTION AND RECOVERY
4.2.5	3	O	4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING	CONTROL SIGNAL RESPONSE	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5	3	O	4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING	FAILURE INDICATOR	4.2.5.4	FAILURE DETECTION AND RECOVERY
4.2.5	3	O	4.2.5.4	FAILURE DETECTION AND RECOVERY	DIAGNOSTICS, RECONFIGURATION COMMANDS	4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5	3	I	4.2.5.4	FAILURE DETECTION AND RECOVERY	FAILURE INDICATOR	4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING
4.2.5	3	I	4.2.5.4	FAILURE DETECTION AND RECOVERY	RECOVERY PROCEDURE	4.2.5.5	COMMAND PROCESSING
4.2.5	3	O	4.2.5.5	COMMAND PROCESSING	VALIDATED COMMANDS	4.2.5.1	COMMUNICATION NETWORK

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4.2.5	3	O	4.2.5.5	COMMAND PROCESSING	RECOVERY PROCEDURE	4.2.5.4	CONTROL FAILURE DETECTION AND RECOVERY
4.2.5	3	O	4.2.5.5	COMMAND PROCESSING	COMMUNICATION COMMAND DISPOSITION	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5	3	I	4.2.5.5	COMMAND PROCESSING	COMMUNICATION COMMANDS	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5	3	O	4.2.5.5	COMMAND PROCESSING	TELEMETRY COMMANDS	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	I	4.2.5.6	COMMUNICATION INTERFACE CONTROL	EXECUTABLE COMMUNICATION COMMANDS	3.4.2	SEQUENCE CORE SYSTEM OPERATION
4.2.5	3	I	4.2.5.6	COMMUNICATION INTERFACE CONTROL	POINTING COORDINATES	4.1.2.6	POINTING MOUNT CONTROL
4.2.5	3	O	4.2.5.6	COMMUNICATION INTERFACE CONTROL	COMMUNICATION COMMANDS	4.2.5.5	COMMAND PROCESSING
4.2.5	3	I	4.2.5.6	COMMUNICATION INTERFACE CONTROL	COMMUNICATION COMMAND DISPOSITION	4.2.5.5	COMMAND PROCESSING
4.2.5	3	O	4.2.5.6	COMMUNICATION INTERFACE CONTROL	TELEMETRY REQUIREMENTS	4.2.5.7	TELEMETRY CONTROL
4.2.5	3	O	4.2.5.7	TELEMETRY CONTROL	LINK AVAILABILITY	1.1.3	MONITOR REALTIME DATA
4.2.5	3	I	4.2.5.7	TELEMETRY CONTROL	LINK REQUIREMENTS	1.1.3	MONITOR REALTIME DATA
4.2.5	3	O	4.2.5.7	TELEMETRY CONTROL	LINK AVAILABILITY	1.2.3	MONITOR DELAYED DATA
4.2.5	3	I	4.2.5.7	TELEMETRY CONTROL	LINK REQUIREMENTS	1.2.3	MONITOR DELAYED DATA
4.2.5	3	I	4.2.5.7	TELEMETRY CONTROL	TELEMETRY COMMANDS	4.2.5.5	COMMAND PROCESSING
4.2.5	3	I	4.2.5.7	TELEMETRY CONTROL	TELEMETRY REQUIREMENTS	4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.3.2	3	I	4.0	OPERATE CORE SYSTEMS	AUTOMATIC EMERGENCY COMMANDS	4.3.2.3	AUTOMATIC CONTROL PROCESSING
4.3.2	3	O	4.2.4.5	FIRE DETECTION AND CONTROL	PRESSURE SHELL PENETRATION, FIRE ALERT	4.3.2.1	CAUTION AND WARNING
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	PRESSURE SHELL PENETRATION, FIRE ALERT	4.2.4.5	FIRE DETECTION AND CONTROL
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.1	MONITOR CORE SYSTEM STATUS
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE
4.3.2	3	I	4.3.2.1	CAUTION AND WARNING	PAYLOAD SYSTEM FAULT	4.5.5	SYSTEM TEST AND EVALUATION
4.3.2	3	O	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY AUTOMATIC PROCEDURES	4.3.2.3	AUTOMATIC CONTROL PROCESSING
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITION DATA	4.5.1	MONITOR CORE SYSTEM STATUS
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.1	MONITOR CORE SYSTEM STATUS
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL CONDITIONS	4.5.4.1	FAULT ANALYSIS
4.3.2	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	PAYLOAD SYSTEM, FAULT	4.5.5	SYSTEM TEST AND EVALUATION
4.3.2	3	O	4.3.2.3	AUTOMATIC CONTROL PROCESSING	AUTOMATIC EMERGENCY COMMANDS	4.0	OPERATOR CORE SYSTEMS
4.3.2	3	I	4.3.2.3	AUTOMATIC CONTROL PRO-	ABNORMAL AND EMERGENCY AUTO-	4.3.2.2	ABNORMAL AND EMERGENCY

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				CESSING	MATIC PROCEDURES		PROCEDURES
4.3.2	3	O	4.5.1	MONITOR CORE SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.3.2	3	O	4.5.1	MONITOR CORE SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.2	MONITOR CUSTOMER SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.3.2	3	O	4.5.2	MONITOR CUSTOMER SYSTEM STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.3.2	3	O	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	AHBNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.4.1	FAULT ANALYSIS	ABNORMAL CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2	3	O	4.5.5	SYSTEM TEST AND EVALUATION	PAYLOAD SYSTEM FAULT	4.3.2.1	CAUTION AND WARNING
4.3.2	3	O	4.5.5	SYSTEM TEST AND EVALUATION	PAYLOAD SYSTEM, FAULT	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.4.1	3	I	4.1.2.6	DETERMINE POINTING MOUNT CONTROL	COORDINATE ALIGNMENT RELIEF	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.4.1	3	O	4.4.1.4	RELATIVE ALIGNMENT DETERMINATION	COORDINATE ALIGNMENT RELIEF	4.1.2.6	DETERMINE POINTING MOUNT CONTROL
4.5	2	O	4.0	OPERATE CORE SYSTEM	TEST RESPONSES	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	I	4.0	OPERATE CORE SYSTEM	TEST ROUTINES	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5	2	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS
4.5	2	I	4.3.2.1	CAUTION AND WARNING	ABNORMAL AND EMERGENCY CONDITIONS	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE
4.5	2	I	4.3.2.1	CAUTION AND WARNING	PAYLOAD SYSTEM FAULT	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL AND EMERGENCY CONDITIONS	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL CONDITIONS	4.5.4	DIAGNOSTICS SUPPORT
4.5	2	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	PAYLOAD SYSTEM FAULT	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	O	4.5.1	MONITOR CORE SYSTEMS STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.5	2	O	4.5.1	MONITOR CORE SYSTEMS STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	O	4.5.1	MONITOR CORE SYSTEMS STATUS	OUT OF TOLERANCE CONDITIONS	4.5.4	DIAGNOSTICS SUPPORT
4.5	2	O	4.5.1	MONITOR CORE SYSTEMS STATUS	REQUIRED SYSTEM TEST	4.5.5	SYSTEM TEST AND EVALUATION
4.5	2	O	4.5.2	MONITOR CUSTOMER SYSTEMS	ABNORMAL AND EMERGENCY	4.3.2.1	CAUTION AND WARNING

FUN NO	LEVEL	I O MODE	PROCESS NO	PROCESS NAME	DATA FLOW MESSAGE	2ND PROCESS NO	2ND PROCESS NAME
				STATUS	CONDITIONS		
4.5	2	O	4.5.2	MONITOR CUSTOMER SYSTEMS STATUS	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	O	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.1	CAUTION AND WARNING
4.5	2	O	4.5.3	MASS PROPERTIES CONFIGURATION UPDATE	ABNORMAL AND EMERGENCY CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	O	4.5.4	DIAGNOSTICS SUPPORT	ABNORMAL CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	I	4.5.4	DIAGNOSTICS SUPPORT	OUT OF TOLERANCE CONDITIONS	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5	2	I	4.5.5	SYSTEM TEST AND EVALUATION	TEST RESPONSES	4.0	OPERATE CORE SYSTEM
4.5	2	O	4.5.5	SYSTEM TEST AND EVALUATION	TEST ROUTINES	4.0	OPERATE CORE SYSTEM
4.5	2	O	4.5.5	SYSTEM TEST AND EVALUATION	PAYLOAD SYSTEM FAULT	4.3.2.1	CAUTION AND WARNING
4.5	2	O	4.5.5	SYSTEM TEST AND EVALUATION	PAYLOAD SYSTEM FAULT	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5	2	I	4.5.5	SYSTEM TEST AND EVALUATION	REQUIRED SYSTEM TEST	4.5.1	MONITOR CORE SYSTEMS STATUS
4.5.4	3	I	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES	ABNORMAL CONDITIONS	4.5.1	FAULT ANALYSIS
4.5.4	3	O	4.5.1	MONITOR CORE SYSTEMS STATUS	OUT OF TOLERANCE CONDITION	4.5.4.1	FAULT ANALYSIS
4.5.4	3	O	4.5.4.1	FAULT ANALYSIS	ABNORMAL CONDITIONS	4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.5.4	3	I	4.5.4.1	FAULT ANALYSIS	OUT OF TOLERANCE CONDITION	4.5.4.1	MONITOR CORE SYSTEMS STATUS
4.5.4	3	O	4.5.4.1	FAULT ANALYSIS	NON-STANDARD FAULT	4.5.4.2	FAULT CORRECTION
4.5.4	3	O	4.5.4.1	FAULT ANALYSIS	ELEMENTS TO BE ANALYZED	4.5.4.3	TREND ANALYSIS
4.5.4	3	I	4.5.4.1	FAULT ANALYSIS	ABNORMAL TRENDS	4.5.4.3	TREND ANALYSIS
4.5.4	3	I	4.5.4.2	FAULT CORRECTION	NON-STANDARD FAULT	4.5.4.1	FAULT ANALYSIS
4.5.4	3	I	4.5.4.3	TREND ANALYSIS	ELEMENTS TO BE ANALYZED	4.5.4.1	FAULT ANALYSIS
4.5.4	3	O	4.5.4.3	TREND ANALYSIS	ABNORMAL TRENDS	4.5.4.1	FAULT ANALYSIS
5.0	1	I	4.2	OPERATE NON-GN & C CORE SYSTEMS	RECONFIGURE, DISCONNECT	5.1	MANAGE FLIGHT SYSTEM FACILITIES
5.0	1	O	5.1	MANAGE FLIGHT SYSTEM FACILITIES	RECONFIGURE, DISCONNECT	4.2	OPERATE NON-GN & C CORE SYSTEM
5.0	1	O	5.1	MANAGE FLIGHT SYSTEM FACILITIES	TDRSS REQUEST	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	I	5.1	MANAGE FLIGHT SYSTEM FACILITIES	TDRSS SCHEDULED	5.2	MANAGE GROUND SYSTEM FACILITIES
5.0	1	I	5.2	MANAGE GROUND SYSTEM FACILITIES	TDRSS REQUEST	5.1	MANAGE FLIGHT SYSTEM FACILITIES
5.0	1	O	5.2	MANAGE GROUND SYSTEM FACILITIES	TDRSS SCHEDULED	5.1	MANAGE FLIGHT SYSTEM FACILITIES

APPENDIX F

SIMULATION AND MODELING

F.1 OBJECTIVES OF SIMULATION

Simulations for the SSDS study are meant to provide an easy-to-use and cost-effective method of analyzing various portions of the data system on various levels. Development of the simulation models involves four major objectives:

1) Quantify resources required
2) Develop parametric sensitivities
3) Quantify system architecture performance to support design evaluation
4) Initiate at top level and expand/grow to model lower levels of detail

There are three simulation tools described below which have been utilized with these objectives in mind. The Data System Dynamic Simulation program provides very high level simulation models, while the Performance Analyst's Workbench System and Research Queueing Package (RESQ) programs have been used for the more detailed low level simulations. Together, these tools are used to support the Space Station Data System trade studies.

F.2 DESCRIPTION OF SIMULATION TOOLS

The three simulation tools used to develop models pertaining to the Space Station Data System are the Performance Analyst's Workbench System (PAWS), Data System Dynamic Simulation (DSDS), and Research Queueing Package (RESQ) simulation programs. Figure F.1 shows the method of approach in using the simulation tools and their relationship to the mission models. The following is a brief description of these tools.

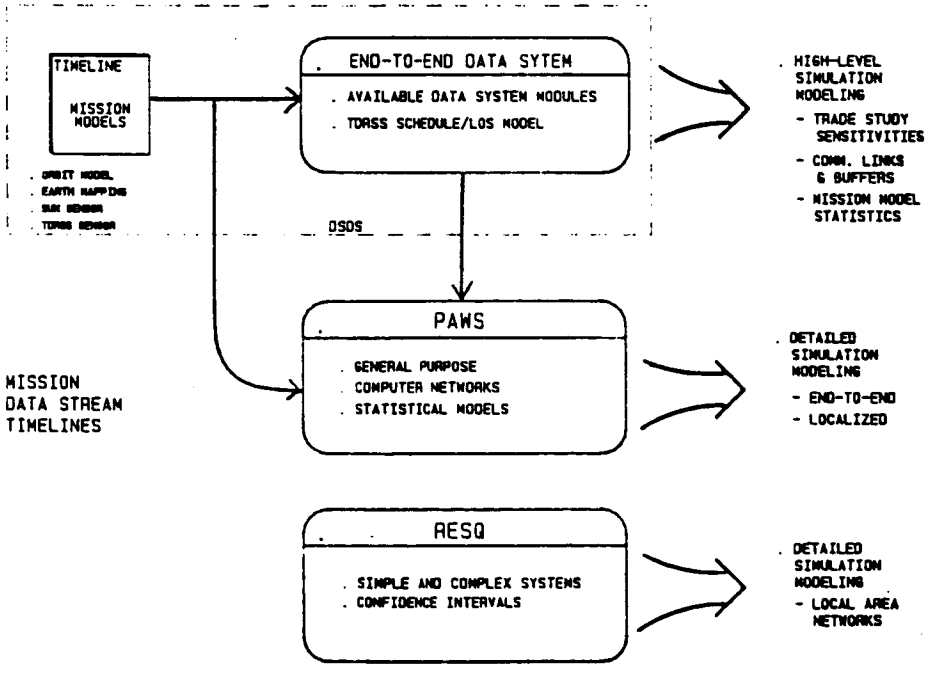


Figure F.1 Simulation Tool Approach

Performance Analyst's Workbench System

PAWS, developed by Information Research Associates, is a software simulation tool hosted at MDAC on a VAX 11/780 computer. PAWS enables the analyst to model computer architectures, communication networks, data flow scheduling algorithms, distributed data base systems, and distributed processing systems. The PAWS simulation model can be quickly translated from a pictorial representation of a data network, formed by the PAWS "building block" technique, into an accurate model written in the PAWS simulation language. The language can be learned in a few days and employs very high level primitives, so most PAWS models are short and can be developed quickly, thus making PAWS a "user-friendly" simulation tool. Statistics produced by the program are extensive and include node throughputs, queue lengths, queueing times, and response times. Specific SSDS applications of PAWS include local area network architecture comparisons, the FDDI token ring and FODS in particular. Section 3 contains modeling details of each architecture and the results are shown in section 4.

Data System Dynamic Simulation (DSDS)

DSDS was originally developed by General Electric for NASA Marshall Space Flight Center in 1975 (see Figure F.2) and is also hosted at MDAC on a VAX 11/780 computer, using interactive Tektronix terminals. The primary objective of DSDS is to provide a quick and easily understood method for simulating data systems. The data system model (DSM) is built by interconnecting data system element models (DSEMs) which represent physical elements such as ground stations, antennas, orbiting satellites, etc. and various logical functions. DSDS is an excellent tool for modeling Space Station mission timelines as well as high level models of the Space Station Data System. Special purpose DSEMs used to develop the mission models which are triggered by some deterministic process include orbiting satellites (SS, COP, POP), sun sensor models (craft/nadir point status), TDRSS models (LOS analysis), and map sensor models (land/water status). Other missions requiring random processes to develop a timeline schedule make use of DSDS' random number generators. DSDS simulation results include response times, queueing statistics, throughput, device utilization reports, and graphic displays.

Research Queueing Package (RESQ)

The Research Queueing Package (RESQ), an IBM product, is an interactive modeling tool for constructing and solving queueing network models of both simple and complex systems. Both analytical and simulation results can be obtained using RESQ. The discrete event simulation capabilities allow modeling of sytems involving simultaneous resource possession. With these techniques, the complexities of the system can be modeled and performance statistics, including utilization, throughput, queueing time, etc... can be obtained. RESQ provides a hierarchical development approach which utilizes submodels as building blocks to create complex models.

In addition, RESQ provides the capability to indicate the accuracy of the simulation using "confidence intervals". The length of the simulation can also be controlled through user established stopping rules.

Specific RESQ models include the token ring and CSMA/CD network architectures. The simulation results from each of these models were compared as a calibration exercise to analytical results obtained using equations derived by Werner Bux, IBM-Zurich, Switzerland, in "Local Area Subnetworks: A Performance Comparison", IEEE Transactions on Communications, Oct. 1981, as a calibration exercise.

The analytical results were obtained using the equations derived by Werner Bux in an existing APL program. The parameters were varied in order to observe the effect on performance. The analytical results for the token ring and CSMA/CD model are shown in section F.4.

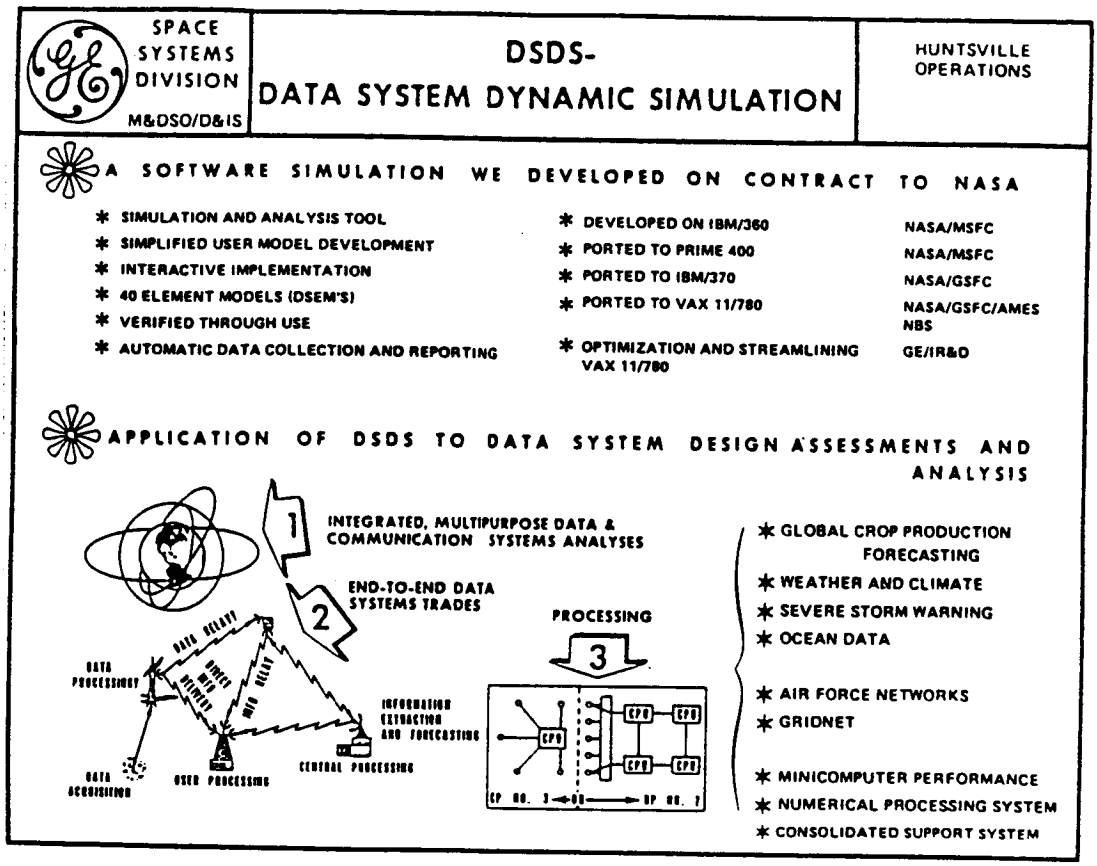


Figure F.2 Data System Dynamic Simulation - DSDS

F.3 SYSTEM MODELS AND ASSUMPTIONS

Three major categories of simulations have been modeled for the Space Station Data System: 1) Mission scenario model, 2) End-to-end model, and 3) Local area network models. Each group is represented by a diagram which describes the logic of the system modeled, along with a set of assumptions and user inputs required to run the simulation and produce results as shown in section 4.

Mission Model

Table F.1 presents all IOC and growth missions from the Woods Hole data base for the space station, co-orbiting platform, and polar orbiting platforms. The table provides the mission number, name, yearly operational percentage, data rate, total duration of "on" time, number of times per day the mission is turned on, the average daily data rate, the average yearly data rate, origination, mission trigger (determinant for turning on the mission), date of mission, destination, and delivery time (establishes priority among the missions). Other fields of the table were not entered into the mission model, but are provided for full mission background information. The information utilized in the table was entered into a data system model using DSDS to create mission timelines for all system analysis models.

MISSION	NAME	% OF A YEAR OPERATIONAL	DATA RATE (MBPS)	DATA 'ON' TIME (HRS)	TIMES PER DAY	AVG. DAILY RATE (MBPS)	AVG. YEARLY RATE (MBPS)	VIDEO	VIDEO 'ON' TIME (HRS)	VIDEO TIMES PER DAY	VIDEO HOURS PER DAY	IOC	GROWTH	SS	COP	POP	TRIGGER	TRIGGER PROB.	DESTINATION	COMMAND RATE	COMMAND 'ON' TIME	COMMAND TIMES PER DAY	ONBOARD STORAGE	YEAR UP	YEAR DOWN	SCHED.	INTER.	DATA DELIVERY TIME
TDRX2061	LG SP STR	100	1.000	.10	1	.0042	.0042	N	.00	0	.00	Y	N	Y	N	N	POISSON	.004	TECH	****	.1	1	120.0	92	93	S	N	0
TDRX2064	ANTE ASSY	10	1.000	.10	1	.0042	.0004	L	.50	1	.50	N	Y	Y	N	N	60 DAYS/YEAR	.004	TECH	****	.1	1	120.0	92	93	S	N	0
SAAX0005	TRIC	100	.1000	24.	1	.1000	.1000	N	.00	0	.00	Y	Y	N	N	2	CONTINUOUS	1.000	ASTRO	1.00	.2	1	.4	94	98	N	N	24
SAAX0021	SUPCONMAGR	100	.1000	24.	1	.1000	.1000	N	.00	0	.00	Y	Y	Y	N	N	CONTINUOUS	1.000	ASTRO	1.00	.2	1	180.0	94	97	N	N	24
SAAX0208	MRIS	100	3.000	.50	7	.4375	.4375	N	.00	0	.00	Y	Y	N	N	1	SUNLIT LAND	1.000	EARTH	.50	.2	1	.0	92	0	S	N	3
SAAX0009	POF	100	1.400	1.00	15	.8750	.8750	N	.00	0	.00	Y	N	Y	N	N	SUN	1.000	SOLAR	1.00	.1	15	.5	94	95	N	N	24
SAAX0004	SIRTF	100	1.000	24.	1	1.000	1.000	N	.00	0	.00	Y	Y	N	Y	N	CONTINUOUS	1.000	ASTRO	10.00	.1	15	.0	93	0	N	N	24
SAAX0225	STD POLAR	25	2.000	4.00	4	1.333	1.333	N	.00	0	.00	N	Y	N	N	Y	1 WEEK/MONTH	.670	ENVIR	20.00	.2	4	.0	96	97	S	Y	0
SAAX0231	V-UV SPEC	100	2.000	24.	1	2.000	2.000	N	.00	0	.00	Y	Y	N	N	2	CONTINUOUS	1.000	ENVIR	1.00	.3	1	.0	94	0	N	N	3
COMM1014	REM SENS	25	300.000	.20	1	2.500	.625	N	.00	0	.00	Y	Y	Y	N	N	LAND	.028	COMM	1.00	.1	1	5.0	94	99	S	N	24
SAAX0207	STD	25	10.000	1.50	4	2.500	.625	L	1.00	1	1.00	Y	N	Y	N	N	1 WEEK/MONTH	.250	ENVIR	20.00	.2	4	.0	94	95	S	Y	0
SAAX0220	THERMAL IR	100	30.000	.20	15	3.750	3.750	N	.00	0	.00	Y	Y	N	N	1	LAND	.690	EARTH	1.00	.3	1	.0	92	0	N	N	3
SAAX0212	SAR	100	300.000	.10	15	18.750	18.750	N	.00	0	.00	Y	Y	N	N	2	LAND	.208	EARTH	2.00	.3	1	.0	92	0	S	N	6
SAAX0227	PLASMA EXP	100	50.000	8.00	1	16.667	16.667	N	.00	0	.00	N	Y	Y	N	N	POISSON	.330	ENVIR	10.00	.2	4	50.0	96	97	S	Y	0
SAAX0209	HIRIS	100	160.000	.25	15	25.000	25.000	N	.00	0	.00	Y	Y	N	N	1	SUNLITLAND	1.000	EARTH	1.00	.2	1	.0	92	0	S	N	3
SAAX0011	ASO	100	50.000	1.00	15	31.250	31.250	N	.00	0	.00	N	Y	Y	N	N	SUN	1.000	SOLAR	10.00	.1	15	1.0	96	0	N	Y	0
COMM1023	STR SEASAR	100	76.000	1.00	15	47.500	47.500	N	.00	0	.00	N	Y	N	N	3	WATER	.060	COMM	1.00	.2	15	.0	99	0	N	N	2
COMM1019	STEREO IS	100	200.000	.50	15	62.500	62.500	N	.00	0	.00	Y	Y	N	N	1	SUNLITLAND	1.000	COMM	1.00	.2	1	.0	92	0	N	N	24
COMM1020	STR IS/SAR	100	276.000	.50	15	86.250	86.250	N	.00	0	.00	N	Y	N	N	1	SUNLITLAND	1.000	COMM	1.00	.2	15	.0	99	0	N	N	24
Multiple	Video Missions	100	.800 (2 Channels @ .4 each)	24.	1	.800	******	L	24.	1	24.	Y	Y	Y	Y	Y	CONTINUOUS	1.000	SEVERAL	****	**	**	**	92	0	*	*	0
Multiple	SS Others	100	.655	24.	1	.655	.655	N	.00	0	.00	Y	Y	Y	N	N	CONTINUOUS	1.000	SEVERAL	****	**	**	**	92	0	*	*	*
Multiple	POP Others	100	.266	24.	1	.266	.266	N	.00	0	.00	Y	Y	N	N	Y	CONTINUOUS	1.000	SEVERAL	****	**	**	**	92	0	*	*	*

Table F.1 Woods Hole Mission Data Base Input to DSDS Mission Model

Figure F.3 gives an overview of the mission model scenario. Two sample DSDS mission models are shown in figure F.4. Assumptions for the mission model are as follows:

- SS, COP apogee of 500 Km
- SS, COP inclination angle of 28.5 degrees
- POP apogee of 700 Km
- POP inclination angle of 98.2 degrees

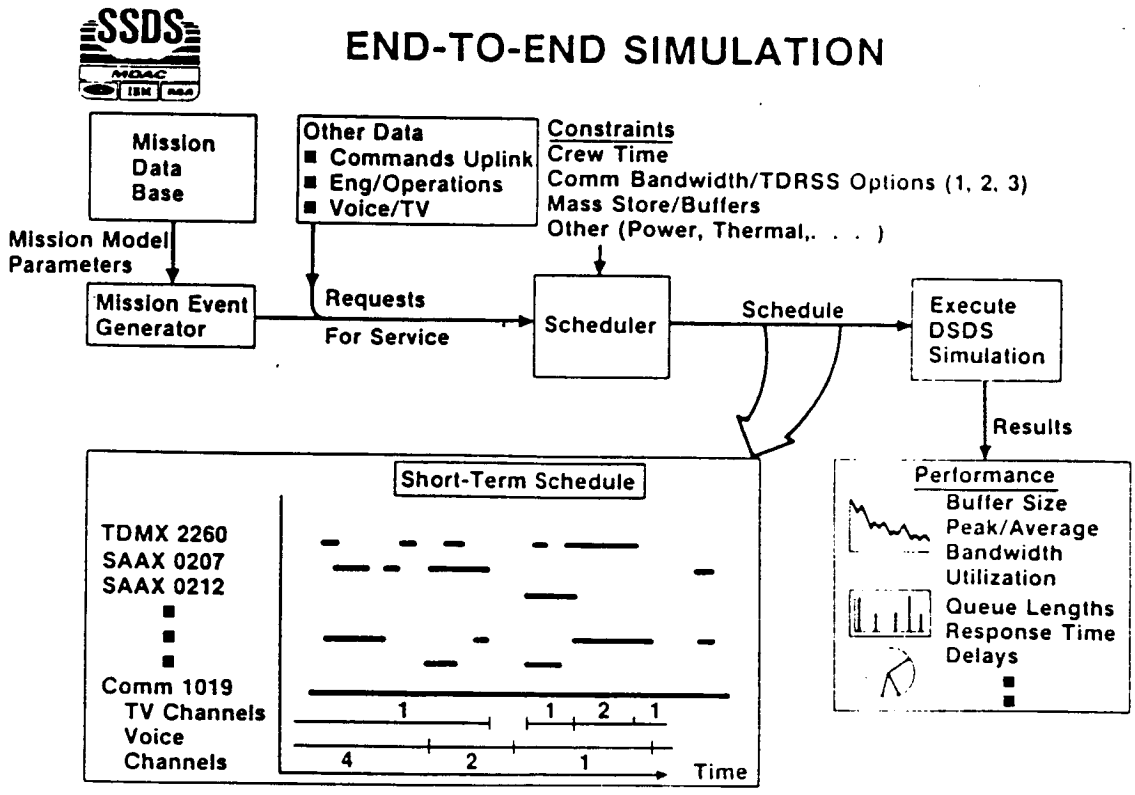
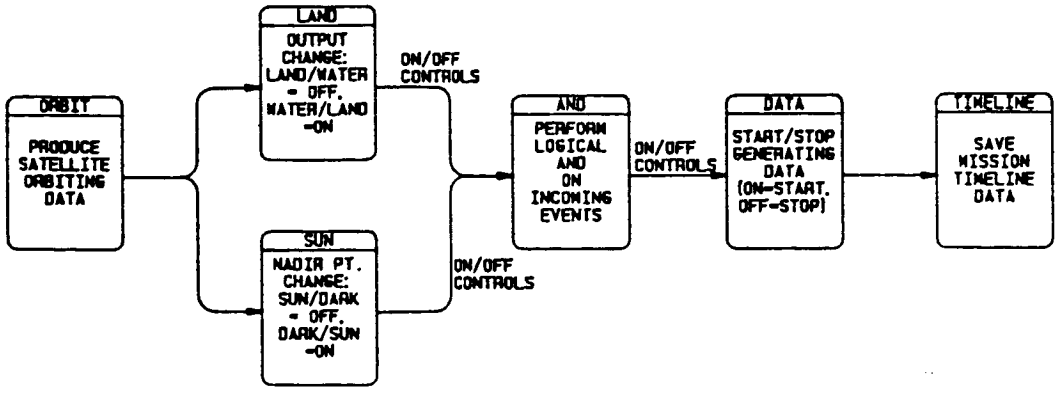


Figure F.3 Mission Model Overview

Trigger = Sunlit Land



Trigger = Poisson process, Data 'on' time = 30 minutes

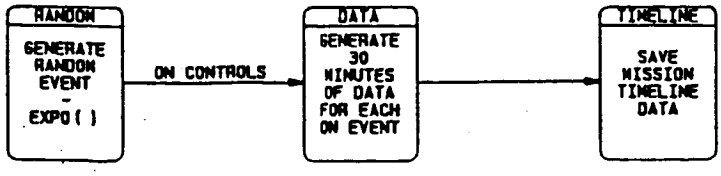


Figure F.4 Sample DSDS Mission Models

End-to-End Network Model

The end-to-end network was modeled with DSDS for both IOC and growth missions from the mission model described in the previous section. There are three different configurations (one configuration for space and three for ground) shown in figure F.5. All missions with data rates below 10 Mbps were combined as one low rate continuous mission for SS, COP, and POPs (one for each). Ground link bandwidths were determined by the average input rate at a particular buffer. The following additional assumptions for the end-to-end network model are as follows:

- One, two, or three TDRSS SA links of 300 Mbps bandwidth each

- TDRSS SA channels are modeled as resources:

  3 SA links are modeled as follows:
  Five repetitive 20 minute zones of non-contact during which the SA channels are taken away:
  1) 1 from SS, 1 from POP1
  2) 2 from SS
  3) 2 from POP1
  4) 1 from POP1, 1 from POP2
  5) 1 from SS, 1 from POP2

  2 SA links are modeled as follows:
  Two simultaneous sets of three repetitive zones-of-contact during which the SA channels are available (Set 1 starts with zone 1, Set 2 starts with zone 2):
  1) POP1 for 45 minutes
  2) SS for 25 minutes
  3) POP2 for 10 minutes

  1 SA link is modeled with three zones-of-contact during which the SA channel is available:
  1) POP1 for 45 minutes
  2) SS for 25 minutes
  3) POP2 for 10 minutes

- IOC high rate missions are:

Source	RDC	Mission #	Priority
SS	GSFC	COMM1014	2
SS	GSFC	SAAX0207	1
POP1	GSFC	COMM1019	2
POP1	GSFC	SAAX0209	2
POP1	GSFC	SAAX0228	2
POP2	JPL	SAAX0212	2

- Growth high rate missions are:

Source	RDC	Mission #	Priority
SS	GSFC	COMM1014	2
SS	GSFC	SAAX0011	2
SS	LANG	SAAX0227	1
POP1	GSFC	COMM1019	2
POP1	GSFC	SAAX0209	2
POP1	GSFC	SAAX0228	2
POP2	JPL	SAAX0212	2

- All low rate combined continuous missions are sent to GSFC

- IOC low rate combined continuous missions are given priority level 3

DSDS simulation model results for one, two, or three SA links using the IOC end-to-end configuration are shown in section F.4.

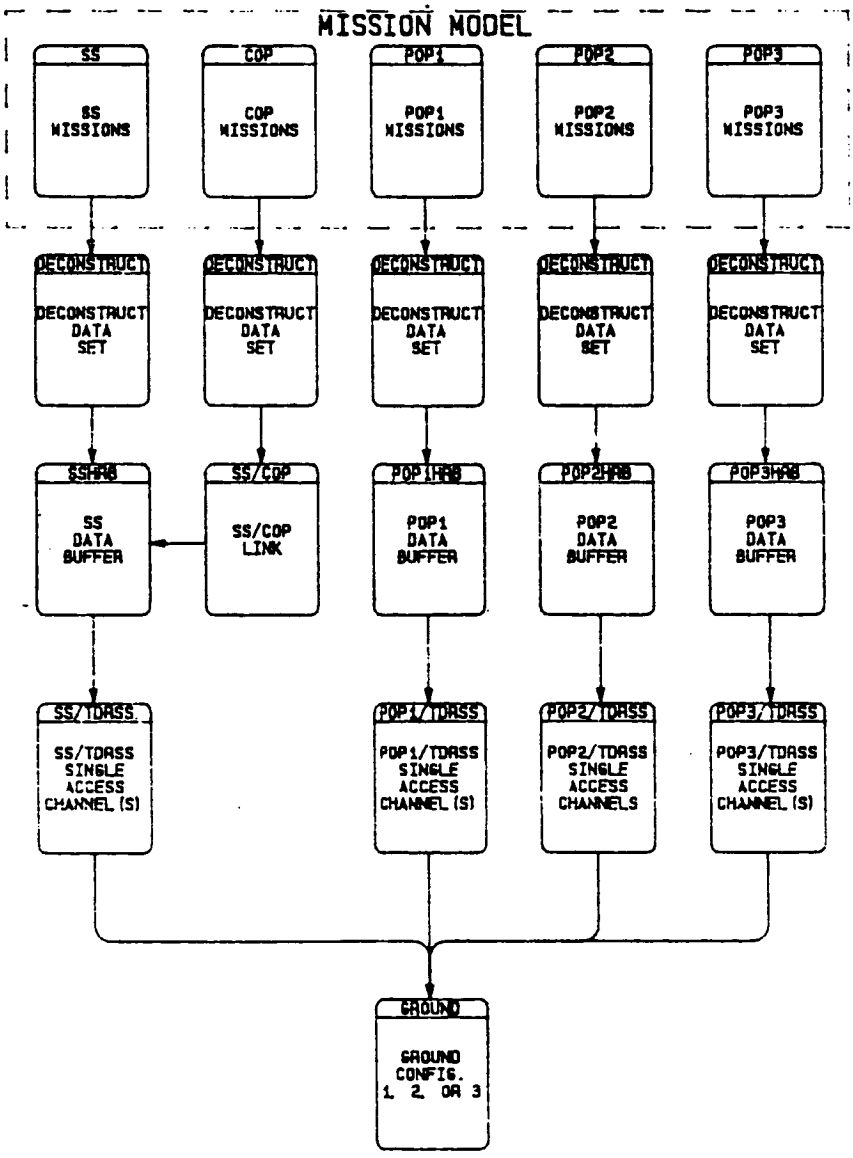


Figure F.5-a DSDS End-to-End Simulation Model (Space)

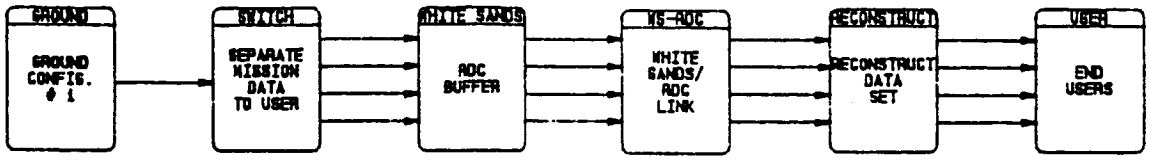


Figure F.5-b DSDS End-to-End Simulation Model (Ground Configuration #1)

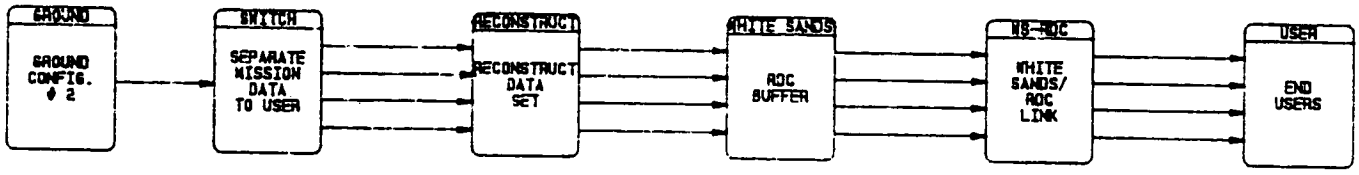


Figure F.5-c DSDS End-to-End Simulation Model (Ground Configuration #2)

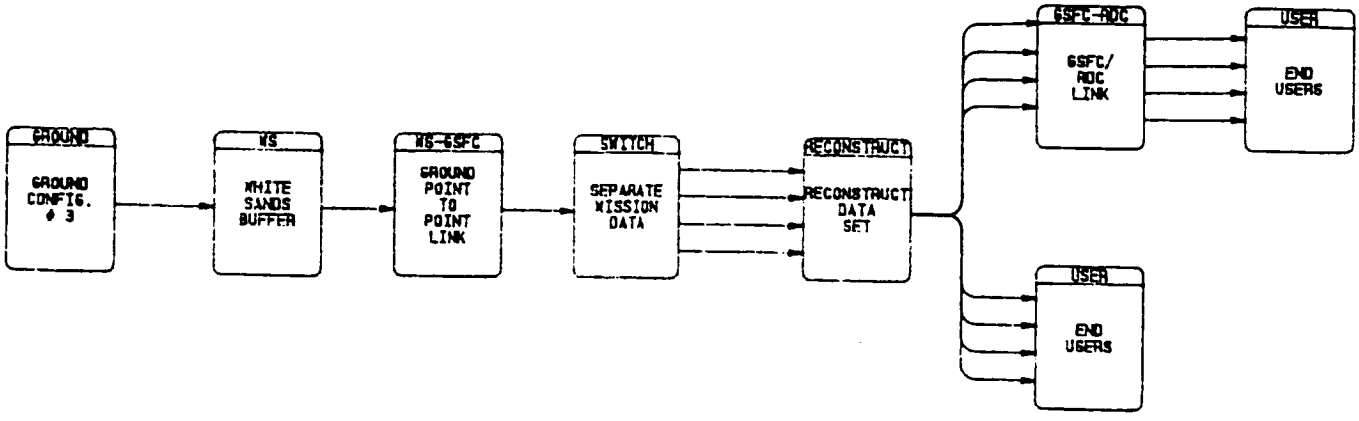


Figure F.5-d DSDS End-to-End Simulation Model (Ground Configuration #3)

Buffering Analysis Model

The buffering analysis model was developed using DSDS to support the end-to-end network effort for the SSDS study. The DSDS model configuration is shown in figure F.6 and the assumptions used are as follows:

- Zone of "non-contact" for n minutes
- SA link bandwidth of b Mbps

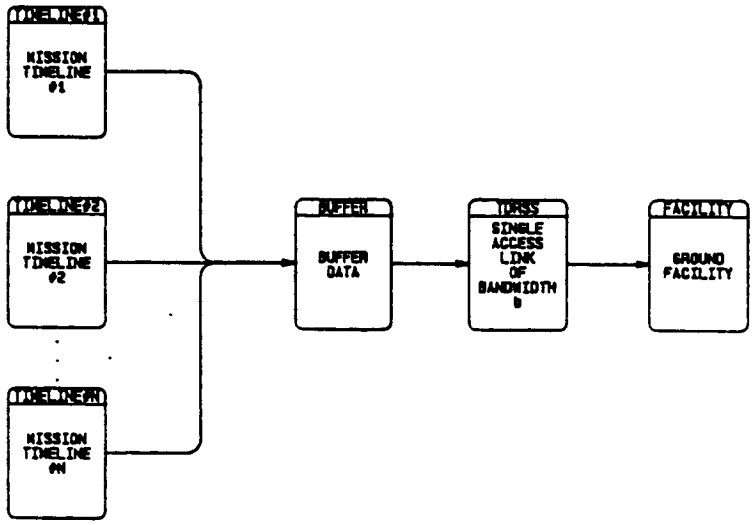


Figure F.6 DSDS Buffer Simulation Model

Local Area Network Models

The local area network architectures that have been modeled for the Space Station Data System study are fiber distributed data interface, fiber optic demonstration system, token ring, and carrier sense multiple access with collision detection. These LAN simulation models are parametric sensitivities as opposed to mission model driven.

Fiber Distributed Data Interface (FDDI) Token Ring

The Fiber Distributed Data Interface (FDDI) token ring architecture shown in figure F.7, is modeled using the following assumptions with PAWS:

- 500, 1000, 2048 byte data packets
- 28 byte header
- 11 byte token
- 100 Mbps effective bandwidth
  (Ignores 4 for 5 symbol encoding)
- 50 m arm length between BIUs
- 5 usec/Km propogation speed
- 5 nodes
- Non-redundant configuration
- No transmission errors

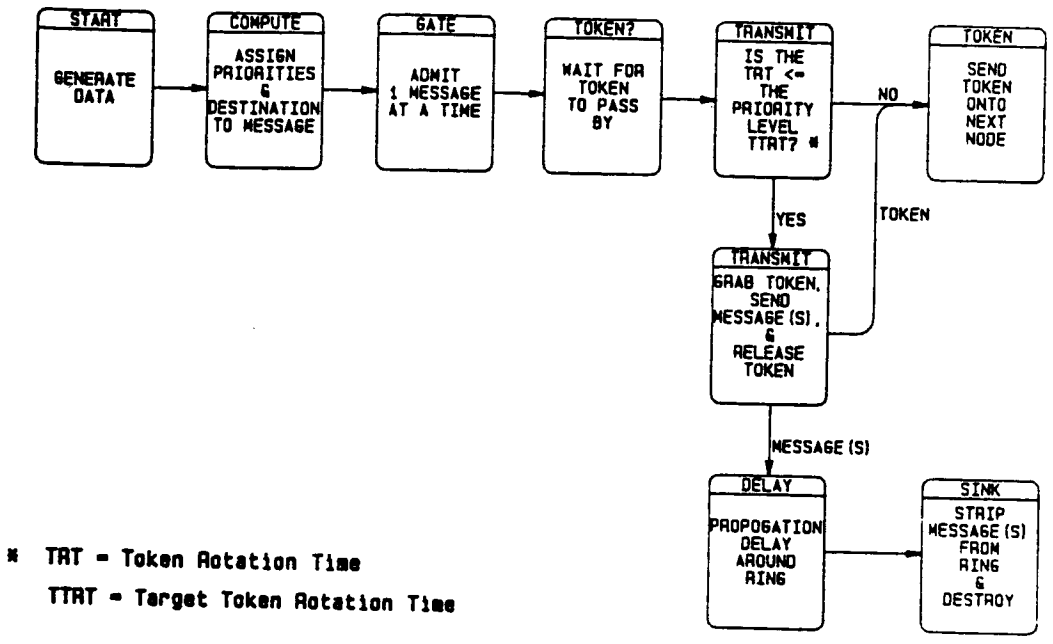


Figure F.7 PAWS Model of FDDI logic for one node

Fiber Optic Demonstration System (FODS)

The Fiber Optic Demonstration System (FODS) data bus, also modeled with PAWS, is shown in figure F.8. The PAWS FODS model assumptions are:

- 500, 1000, or 2048 byte data packets
- 15 byte header plus trailer
- 100 Mbps bandwidth
- 25 m star arm length (50 m total between BIUs)
- 5 usec/Km propogation speed
- 5 nodes
- Tgap = 1.6 usec
  (gap time after each transmission)
- Tsw = 1.6 usec
  (time slot width)
- Random delay after controlled access mode =
  0.0 to 1.6 usec (step size of 0.1 usec)
- Non-redundant configuration
- No transmission errors

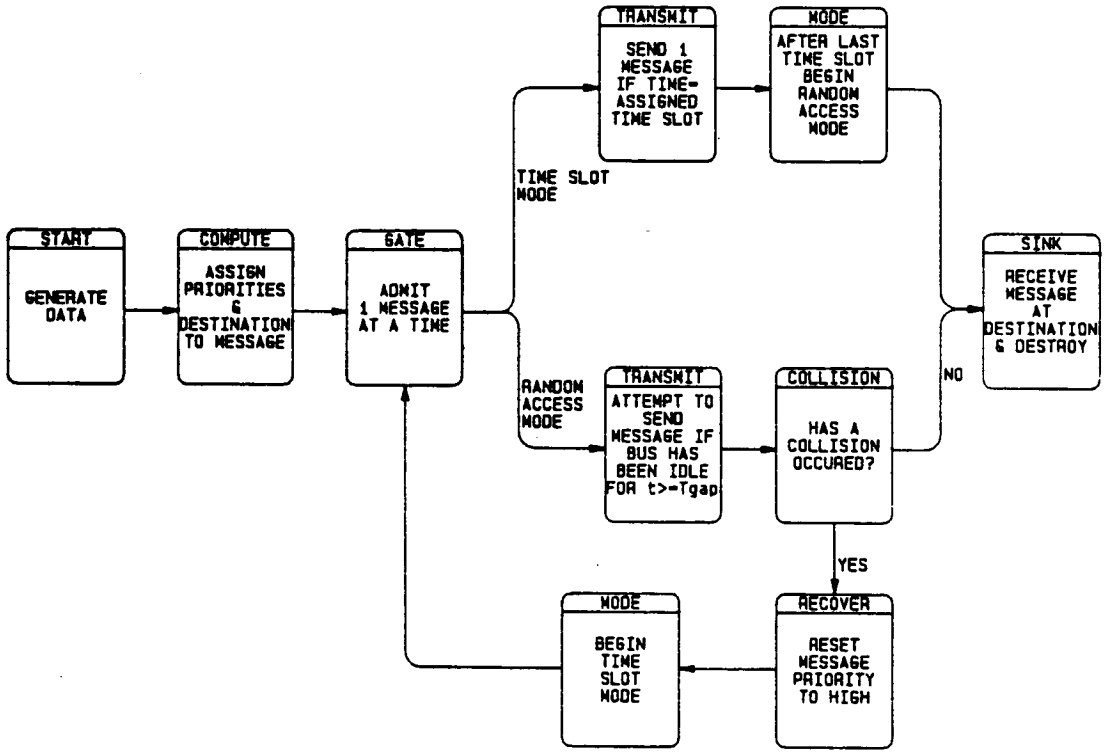


Figure F.8 PAWS Model of FODS Logic For One Node

Token Ring

The token ring architecture was modeled with RESQ and its logic is shown in figure F.9. Characteristics of the model are as follows:

- 46 byte data packets
- 21 byte header
- 3 byte token
- 10 Mbps bandwidth
- 12 Km total ring length
- 5 usec/Km propogation delay
- 1.5 bit delay per node
- 3 byte delay per message
- 10 nodes
- All nodes have equal priority
- Non-redundant configuration
- No transmission errors

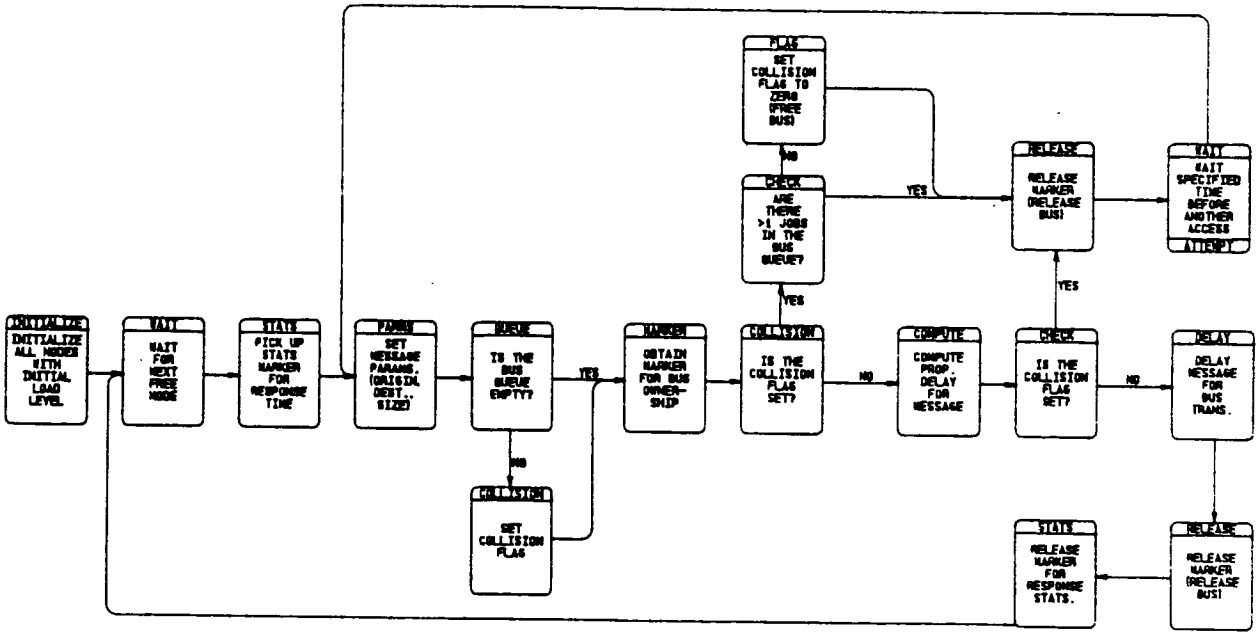


Figure F.9. RESQ CSMA/CD Simulation Logic for One Node

Carrier Sense Multiple Access with Collision Detection (CSMA/CD)

The CSMA/CD bus architecture, also modeled with RESQ, is represented in figure F.10. The parameters used for the simulation model are as follows:

- 46 byte data packets
- 38 byte overhead
- 3.47 Km effective cable length
- 10 Mbps bandwidth
- 5 usec/Km propogation delay between nodes
- 100 nodes
- All nodes have equal priority
- 96 byte interframe spacing
- 168 usec delay for retry
- Non-redundant configuration
- No transmission errors

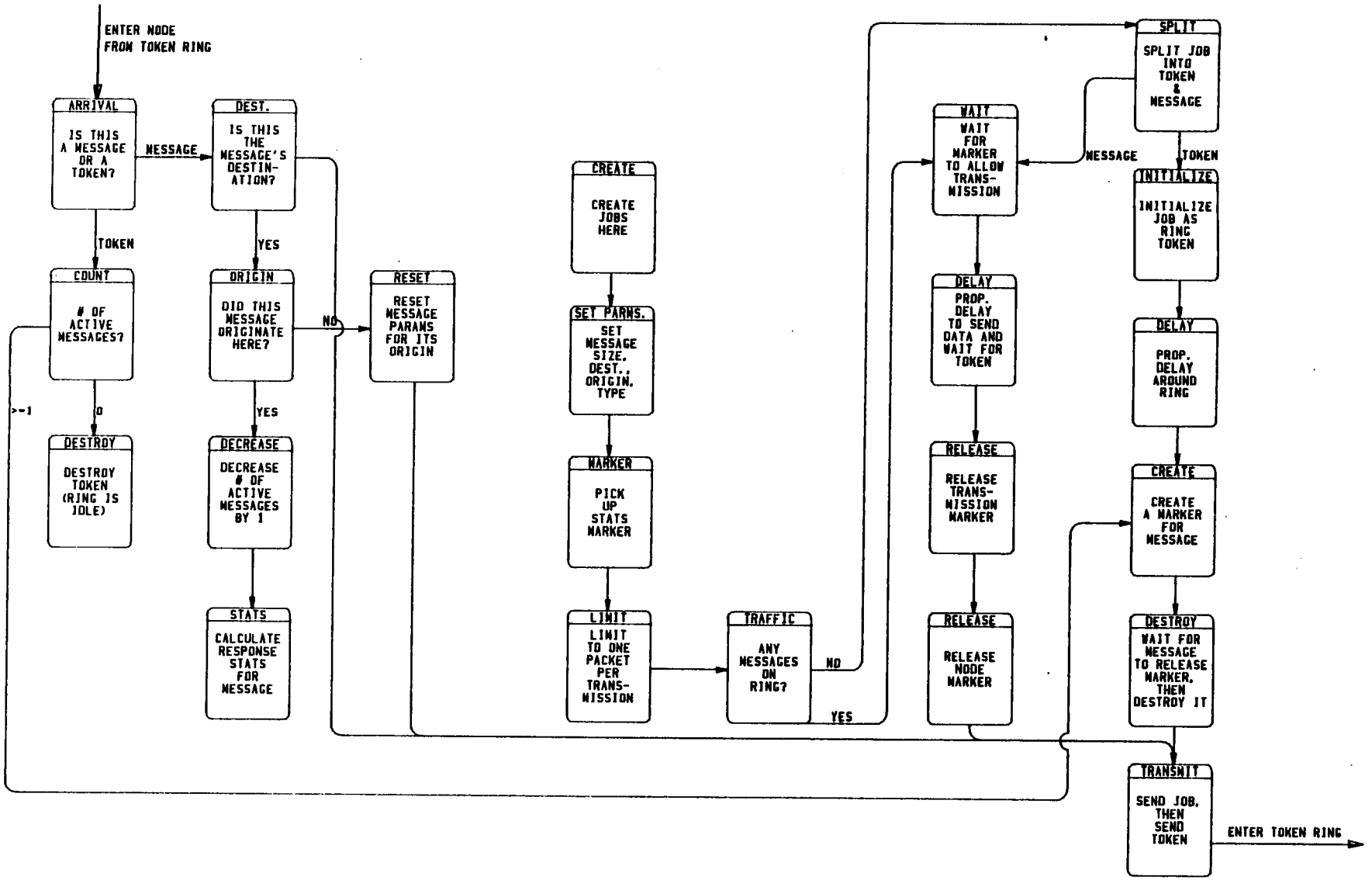


Figure F.10. RESQ Token Ring Simulation Logic for One Node

F.4 SIMULATION RESULTS

The following diagrams illustrate performance results for each simulation model described in section 3.

MISSION MODEL SCENARIO

Timelines for the two DSDS sample space station missions referred to in figure F.4 are shown below in figure F.11. Dark areas for both timelines indicate a "trigger on" condition.

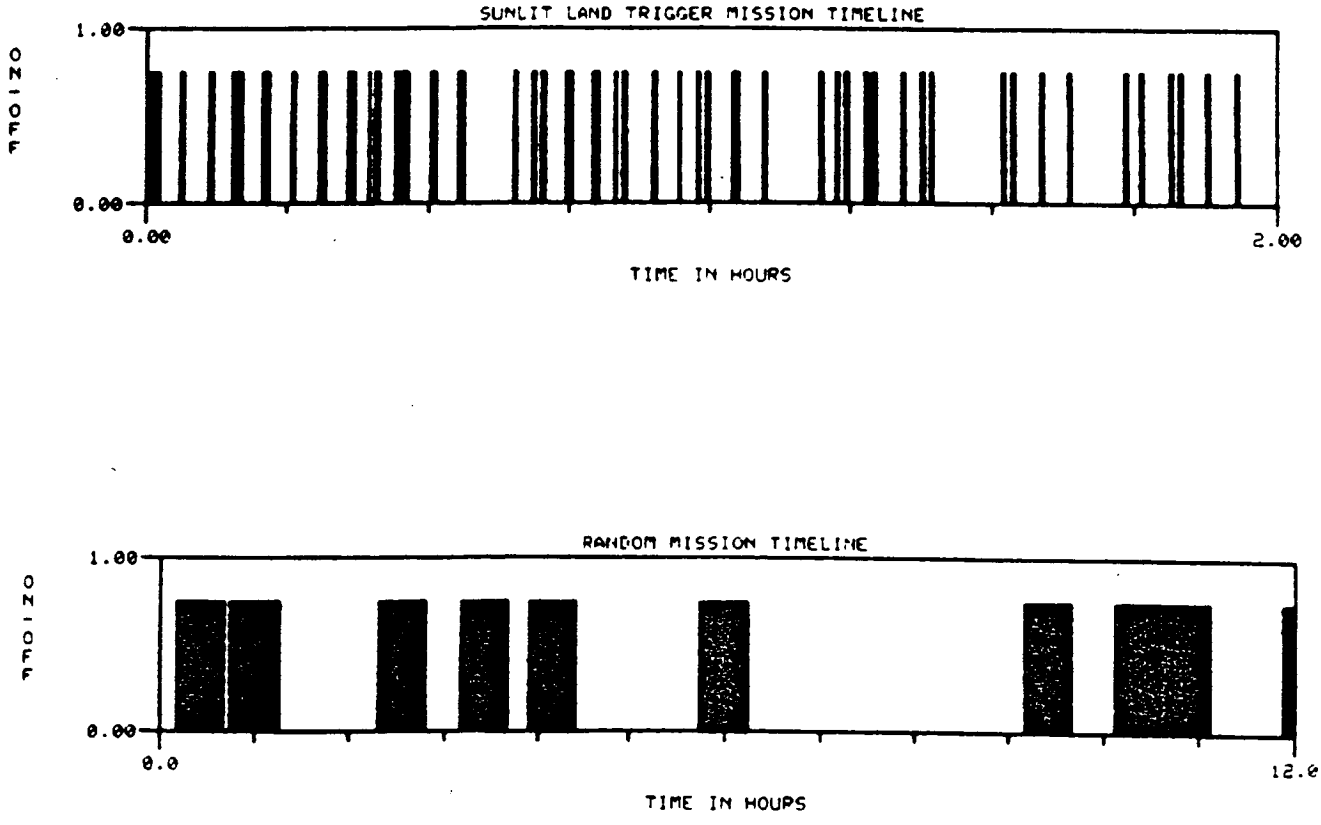


Figure F.11 Sample DSDS Space Station Mission Timelines

END-TO-END NETWORK SIMULATION RESULTS

Buffering Analysis

All simulation results of the end-to-end network model are for a 24 hour simulation period. Table F.2 shows the buffer loading results for IOC onboard the Space Station and POPs. Ground buffer loading, shown in Table F.3, represents ground configurations 1 & 2, and 3 (results for ground configs. 1 & 2 are the same). Ground link bandwidths were determined by the mean input data rate for each buffer :

IOC ground link bandwidths

- White Sands to JPL = 21 Mbps \
- White Sands to GSFC = 75 Mbps/ Ground configs. 1,2
- White Sands to GSFC = 100 Mbps\
- GSFC to JPL = 21 Mbps / Ground config. 3

Timing and Resource Analysis

Resource utilization and response time results are shown in tables F.4 and F.5 for the IOC end-to-end simulation model. The resource utilization results are for each ground point-to-point link. Response times given are from data generation time to data delivery time (to the end user).

IOC	BUFFER	MEAN LOAD IN BITS	MAXIMUM LOAD IN BITS
1 SA LINK	SS	11.412 X 10E9	219.6 X 10E9
	POP1	45.099 X 10E9	510.3 X 10E9
	POP2	88.137 X 10E9	351.9 X 10E9
2 SA LINKS	SS	4.797 X 10E9	216.9 X 10E9
	POP1	2.772 X 10E9	82.8 X 10E9
	POP2	30.672 X 10E9	245.7 X 10E9
3 SA LINKS	SS	3.024 X 10E9	176.4 X 10E9
	POP1	2.691 X 10E9	63.9 X 10E9
	POP2	8.919 X 10E9	233.1 X 10E9

Table F.2 DSDS Onboard Buffer Loading Simulation Results

	IOC GROUND CONFIGS. 1 & 2 BUFFER	MEAN LOAD IN BITS	MAXIMUM LOAD IN BITS	IOC GROUND CONFIG. 3 BUFFER	MEAN LOAD IN BITS	MAXIMUM LOAD IN BITS
1 SA LINK	JPL (AT WHITE SANDS)	146.619 X 10E9	441. X 10E9	WHITE SANDS	163.26 X 10E9	513. X 10E9
	GSFC (AT WHITE SANDS)	126.315 X 10E9	391.5 X 10E9	JPL (AT GSFC)	125.361 X 10E9	394.2 X 10E9
2 SA LINKS	JPL (AT WHITE SANDS)	172.8 X 10E9	513. X 10E9	WHITE SANDS	252.054 X 10E9	683.1 X 10E9
	GSFC (AT WHITE SANDS)	157.41 X 10E9	487.8 X 10E9	JPL (AT GSFC)	153.558 X 10E9	477.9 X 10E9
3 SA LINKS	JPL (AT WHITE SANDS)	178.164 X 10E9	538.2 X 10E9	WHITE SANDS	272.07 X 10E9	706.5 X 10E9
	GSFC (AT WHITE SANDS)	165.663 X 10E9	497.7 X 10E9	JPL (AT GSFC)	128.043 X 10E9	435.6 X 10E9

Table F.3 DSDS Ground Buffer Load Simulation Results

	GROUND CONFIGS. 1 & 2 RESOURCE	UTILIZATION	BANDWIDTH	GROUND CONFIG. 3 RESOURCE	UTILIZATION	BANDWIDTH
IOC 1 SA LINK	WS-JPL LINK	82.87 %	21 MBPS	WS-GSFC LINK	79.9 %	100 MBPS
	WS-GSFC LINK	81.98 %	75 MBPS	GSFC-JPL LINK	82.84 %	21 MBPS
IOC 2 SA LINKS	WS-JPL LINK	84.22 %	21 MBPS	WS-GSFC LINK	80.11 %	100 MBPS
	WS-GSFC LINK	80.98 %	75 MBPS	GSFC-JPL LINK	80.67 %	21 MBPS
IOC 3 SA LINKS	WS-JPL LINK	84.95 %	21 MBPS	WS-GSFC LINK	80.125 %	100 MBPS
	WS-GSFC LINK	82.27 %	75 MBPS	GSFC-JPL LINK	83.378 %	21 MBPS

Table F.4 DSDS Resource Utilization Simulation Results

1 SA LINK	SOURCE	RDC	MISSION #	CONFIGS. 1 & 2 MEAN RESPONSE TIME	CONFIGS. 1 & 2 MAX RESPONSE TIME
IOC MISSIONS	SS	GSFC	COMM1014	46 MIN 27 SEC	1 HR 13 MIN 50 SEC
	SS	GSFC	SAAX0207	22 MIN 59 SEC	55 MIN 35 SEC
	POP1	GSFC	COMM1019	47 MIN 38 SEC	2 HRS 1 MIN 7 SEC
	POP1	GSFC	SAAX0209	47 MIN 40 SEC	2 HRS 1 MIN 16 SEC
	POP1	GSFC	SAAX0228	47 MIN 21 SEC	2 HRS 37 SEC
	POP2	JPL	SAAX0212	3 HRS 30 MIN 59 SEC	7 HRS 37 MIN 40 SEC

1 SA LINK	SOURCE	RDC	MISSION #	CONFIG. 3 MEAN RESPONSE TIME	CONFIG. 3 MAX RESPONSE TIME
IOC MISSIONS	SS	GSFC	COMM1014	33 MIN 5 SEC	1 HR 7 MIN 59 SEC
	SS	GSFC	SAAX0207	22 MIN 19 SEC	55 MIN 31 SEC
	POP1	GSFC	COMM1019	47 MIN 46 SEC	1 HR 46 MIN 25 SEC
	POP1	GSFC	SAAX0209	47 MIN 47 SEC	1 HR 46 MIN 33 SEC
	POP1	GSFC	SAAX0228	46 MIN 3 SEC	1 HR 41 MIN 17 SEC
	POP2	JPL	SAAX0212	3 HRS 37 MIN 10 SEC	7 HRS 37 MIN 52 SEC

2 SA LINKS	SOURCE	RDC	MISSION #	CONFIGS. 1 & 2 MEAN RESPONSE TIME	CONFIGS. 1 & 2 MAX RESPONSE TIME
IOC MISSIONS	SS	GSFC	COMM1014	45 MIN 24 SEC	1 HR 38 MIN 56 SEC
	SS	GSFC	SAAX0207	4 MIN 2 SEC	20 MIN 9 SEC
	POP1	GSFC	COMM1019	43 MIN 2 SEC	1 HR 49 MIN 35 SEC
	POP1	GSFC	SAAX0209	43 MIN 3 SEC	1 HR 49 MIN 44 SEC
	POP1	GSFC	SAAX0228	43 MIN 32 SEC	1 HR 49 MIN 5 SEC
	POP2	JPL	SAAX0212	3 HRS 2 MIN 46 SEC	7 HRS 18 MIN 8 SEC

2 SA LINKS	SOURCE	RDC	MISSION #	CONFIG. 3 MEAN RESPONSE TIME	CONFIG. 3 MAX RESPONSE TIME
IOC MISSIONS	SS	GSFC	COMM1014	35 MIN 42 SEC	1 HR 4 MIN 11 SEC
	SS	GSFC	SAAX0207	3 MIN 50 SEC	20 MIN
	POP1	GSFC	COMM1019	46 MIN 14 SEC	1 HR 53 MIN 18 SEC
	POP1	GSFC	SAAX0209	46 MIN 12 SEC	1 HR 53 MIN 27 SEC
	POP1	GSFC	SAAX0228	42 MIN 8 SEC	1 HR 52 MIN 58 SEC
	POP2	JPL	SAAX0212	3 HRS 52 MIN 23 SEC	8 HRS 9 MIN 16 SEC

3 SA LINKS	SOURCE	RDC	MISSION #	CONFIG. 1 & 2 MEAN RESPONSE TIME	CONFIG. 1 & 2 MEAN RESPONSE TIME
IOC MISSIONS	SS	GSFC	COMM1014	47 MIN 13 SEC	1 HR 37 MIN 32 SEC
	SS	GSFC	SAAX0207	2 MIN 36 SEC	20 MIN 18 SEC
	POP1	GSFC	COMM1019	42 MIN 5 SEC	1 HR 48 MIN 20 SEC
	POP1	GSFC	SAAX0209	42 MIN 6 SEC	1 HR 48 MIN 29 SEC
	POP1	GSFC	SAAX0228	44 MIN 52 SEC	1 HR 47 MIN 50 SEC
	POP2	JPL	SAAX0212	2 HRS 47 MIN 20 SEC	7 HRS 7 MIN 37 SEC

3 SA LINKS	SOURCE	RDC	MISSION #	CONFIG. 3 MEAN RESPONSE TIME	CONFIG. 3 MAX RESPONSE TIME
IOC MISSIONS	SS	GSFC	COMM1014	45 MIN 17 SEC	1 HR 50 MIN 5 SEC
	SS	GSFC	SAAX0207	2 MIN 28 SEC	20 MIN 14 SEC
	POP1	GSFC	COMM1019	50 MIN 52 SEC	1 HR 52 MIN 33 SEC
	POP1	GSFC	SAAX0209	50 MIN 51 SEC	1 HR 52 MIN 42 SEC
	POP1	GSFC	SAAX0228	52 MIN 30 SEC	1 HR 52 MIN 13 SEC
	POP2	JPL	SAAX0212	3 HRS 4 MIN 5 SEC	7 HRS 28 MIN 24 SEC

Table F.5 DSDS Response Time Simulation Results

BUFFERING ANALYSIS

Figure F.12, shown below, presents the buffer load analysis for 3 missions:

1) 80 Kbps continuous
2) 5 Kbps for 45 minutes
3) 3 Mbps for 30 minutes

The SA link bandwidth, b, is 1.5 Mbps and the zone of "non-contact" is set for t = 0 to t = 20 minutes. Total simulation time is 98 minutes (approx. one orbit).

Tables F.6 and F.7 show peak buffer load and timing analyses for several sets of missions with varying bandwidths and zone of "non-contact" times. Maximum queue time is defined as the total simulation time (from t = 0.0) before the buffer load reaches zero bits stored.

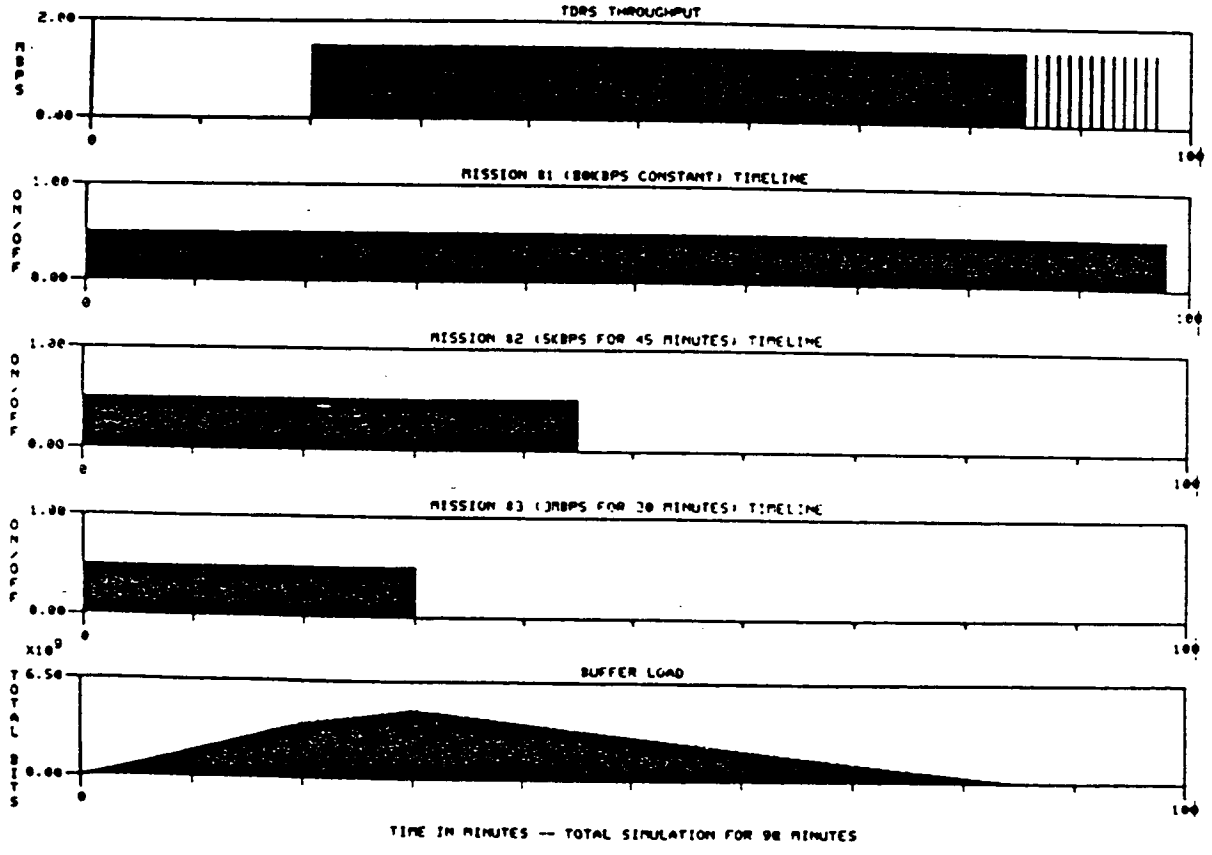


Figure F.12 Sample DSDS Buffer Load Analysis

Polar Orbiting Platform

3 Missions: 1) 80 Kbps continuous
2) 5 Kbps for 45 minutes
3) 3 Mbps for 30 minutes

Simulation run time = 98 minutes

Zone of "non-contact" for n = 15, 20, 30, 45 minutes

Bandwidth, b = 1.5, 2., 3., 4., 5. Mbps

Zone of "non-contact" n	Bandwidth b				
15 minutes	1.5 Mbps	2 Mbps	3 Mbps	4 Mbps	5 Mbps
Max. Buffer Load = (Mbits)	4209	3759	2859	2781	2781
Max. Queue Time =	1.29 hrs	1.01 hrs	44.22 min	36.66 min	32.26 min
20 minutes	1.5 Mbps	2 Mbps	3 Mbps	4 Mbps	5 Mbps
Max. Buffer Load = (Mbits)	4659	4359	3759	3708	3708
Max. Queue Time =	1.38 hrs	1.10 hrs	49.35 min	41.78 min	37.34 min
30 minutes		2 Mbps	3 Mbps	4 Mbps	5 Mbps
Max. Buffer Load = (Mbits)		5559	5559	5559	5559
Max. Queue Time =		1.27 hrs	59.62 hrs	51.99 hrs	47.52 hrs
45 minutes			3 Mbps	4 Mbps	5 Mbps
Max. Buffer Load = (Mbits)			5634	5634	5634
Max. Queue Time =			1.24 hrs	1.12 hrs	1.05 hrs

Table F.6 Buffer Load Performance Results - Scenario 1

Space Station 1994

2 Missions: 1) 1506 Kbps for 60 minutes
2) 191 Kbps continuous

Simulation run time = 98 minutes

Zone of "non-contact" for n = 10, 20, 30, 40 minutes

Bandwidth, b = 1.5, 2., 3., 4., 5. Mbps

Zone of "non-contact" n	Bandwidth b				
10 minutes	1.5 Mbps	2 Mbps	3 Mbps	4 Mbps	5 Mbps
Max. Buffer Load = (Mbits)	1610	1020	1020	1020	1020
Max. Queue Time =	1.31 hrs	58.94 min	20.89 min	15.80 min	14.05 min
20 minutes	1.5 Mbps	2 Mbps	3 Mbps	4 Mbps	5 Mbps
Max. Buffer Load = (Mbits)	2510	2038	2038	2038	2038
Max. Queue Time =	1.50 hrs	1.17 hrs	43.91 min	33.18 min	29.19 min
30 minutes		2 Mbps	3 Mbps	4 Mbps	5 Mbps
Max. Buffer Load = (Mbits)		3056	3056	3056	3056
Max. Queue Time =		1.35 hrs	1.05 hrs	50.54 min	44.32 min
40 minutes		2 Mbps	3 Mbps	4 Mbps	5 Mbps
Max. Buffer Load = (Mbits)		4076	4076	4076	4076
Max. Queue Time =		1.54 hrs	1.23 hrs	1.08 hrs	59.46 min

Table F.7 Buffer Load Performance Results - Scenario 2

FDDI Token Ring

Performance results for the PAWS FDDI token ring simulation model are shown below. Figure F.13 represents the throughput and response time performance results for 5 active stations, generating all high priority messages. For this particular model, since all messages have top priority, message transmission is dependent only upon arrival of the token at a station - no token rotation time constraint is applied. However, only one message is transmitted for each token arrival, thus limiting each station's transmission time as well as the token rotation time around the ring to other stations. Input rates shown are mean values based on an exponential random process. The response time given is the time a message waits at the top of its source queue until it is transmitted onto the ring. The results show that for top priority, a higher throughput performance is reached with larger data fields, however, response times are also increased. Overall, the ring utilization is quite high.

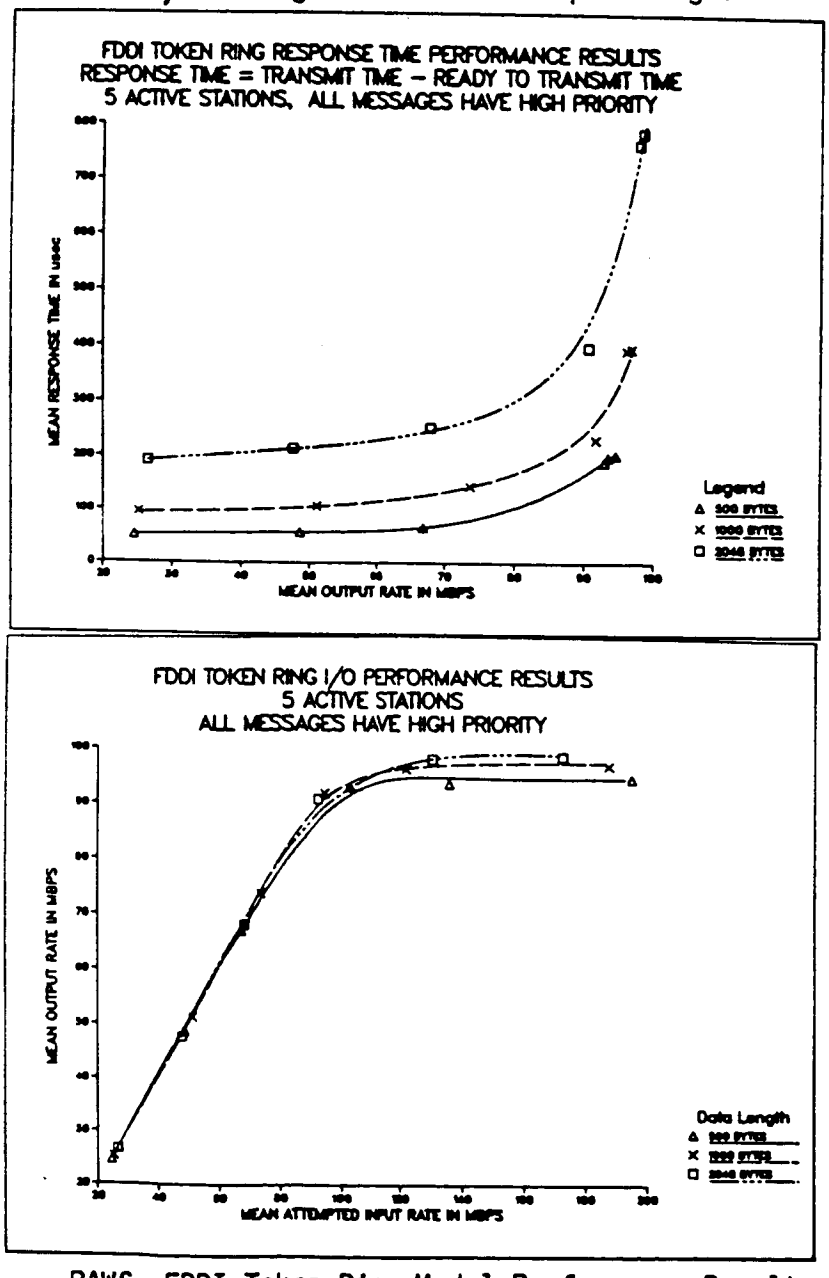


Figure F.13 PAWS FDDI Token Ring Model Performance Results - Scenario 1

Figure F.14 involves 5 active stations, all sending 3 priority levels of data with information field lengths of 1000 bytes. All priority 1 messages from one station are transmitted upon receipt of the token. Priority 2 and 3 message transmissions are dependent upon the token rotation time or the present data load. Service time is defined as a message's total queue time at a station before transmission. This shows that, for low ring traffic (under 100 Mbps total input rate), throughput and response performances are very desirable. However, as the total attempted input rate exceeds 150 Mbps, ring utilization is overtaken by all priority 1 messages.

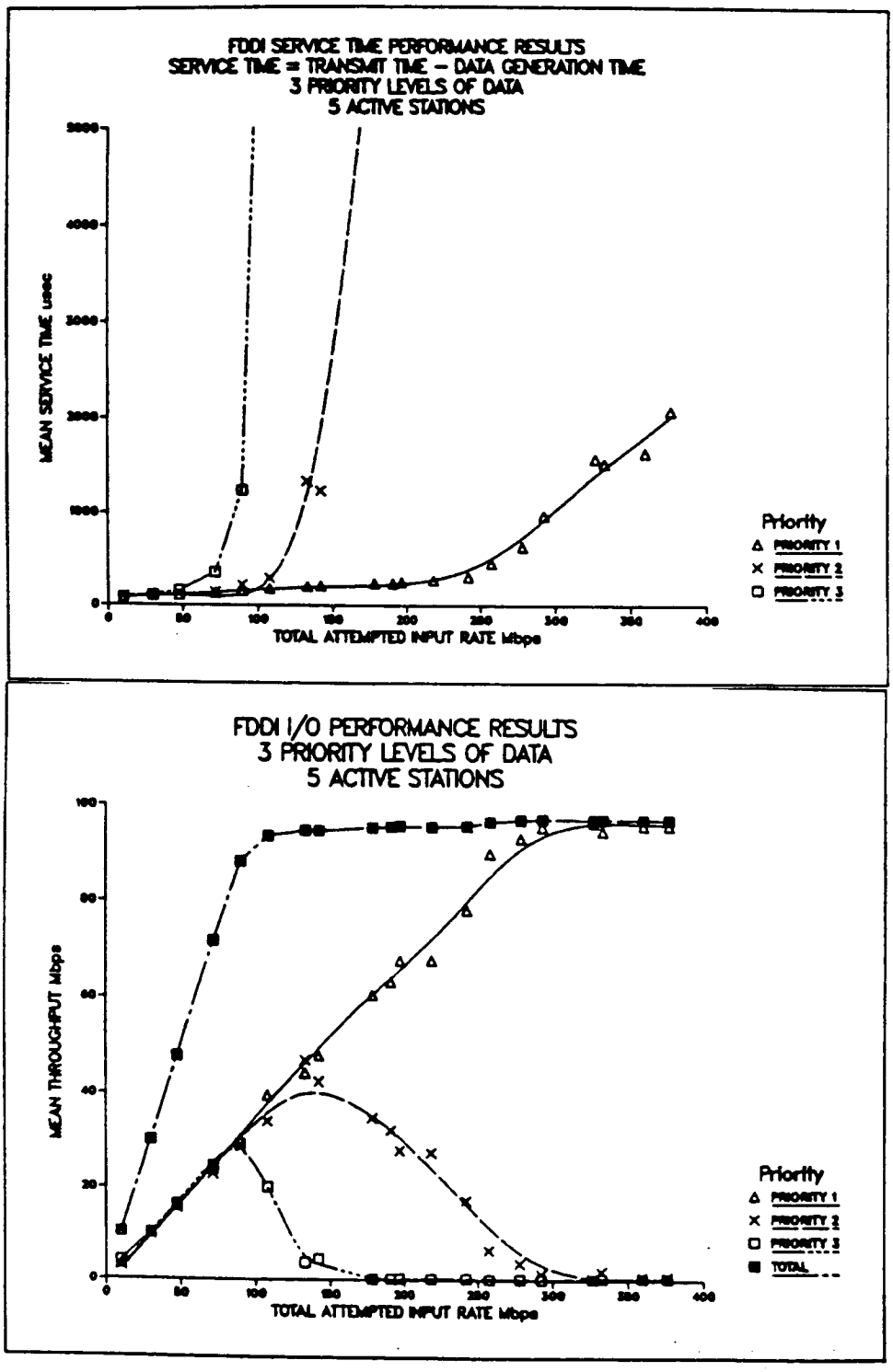


Figure F.14 PAWS FDDI Token Ring Model Performance Results - Scenario 2

Figure F.15 shows the performance results for the PAWS FODS simulation model. The model contained 5 active stations with poisson input rates and varying information lengths for messages. This shows that performance of the FODS and FDDI token ring configurations are relatively close. Again, larger data lengths receive higher throughput and response times.

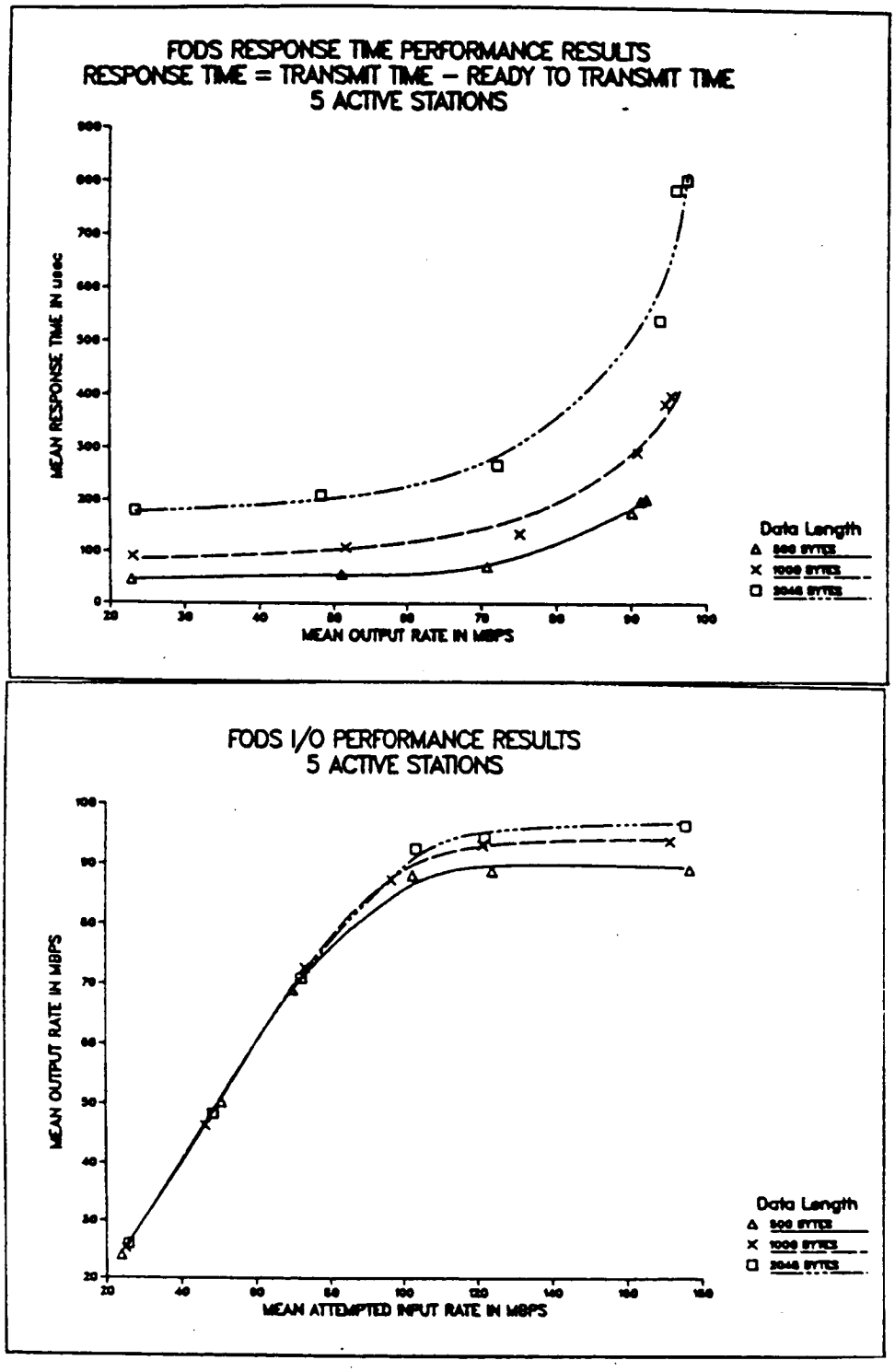


Figure F.15 PAWS FODS Model Performance Results

Token Ring

Calibration curves for the RESQ simulation model of the token ring are shown below in figure F.16. The two curves represent simulation and analytical results. The results show that ring utilization peaks at approximately 50% and transfer time is relatively low until 45% utilization where it has significant increase.

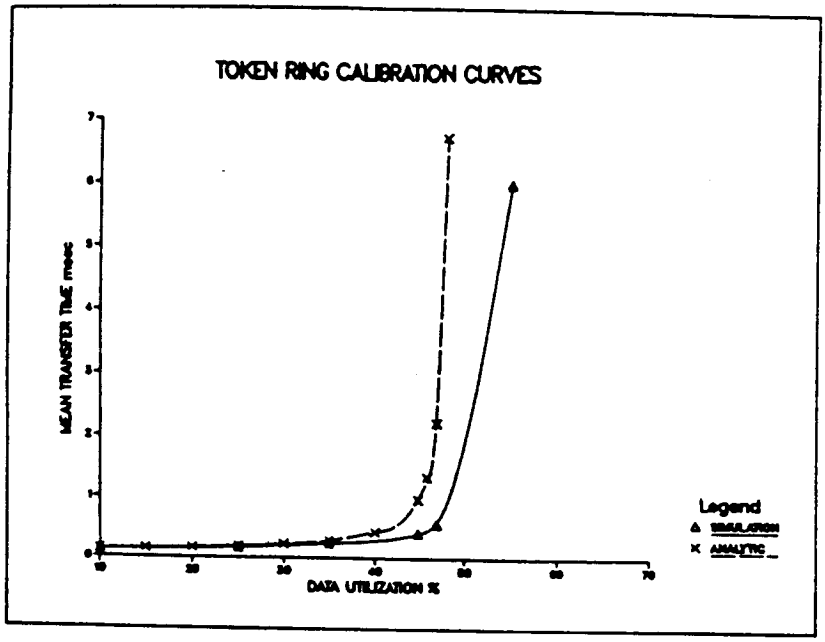


Figure F.16 RESQ Token Ring Simulation Results

Carrier Sense Multiple Access with Collision Detection (CSMA/CD)

Figure F.17, shown below, are simulation and analytical results for the RESQ CSMA/CD simulation model. The two calibration curves give a maximum utilization of only 20% and low transfer time up to approximately 18% utilization. Overall, this architecture shows poor performance.

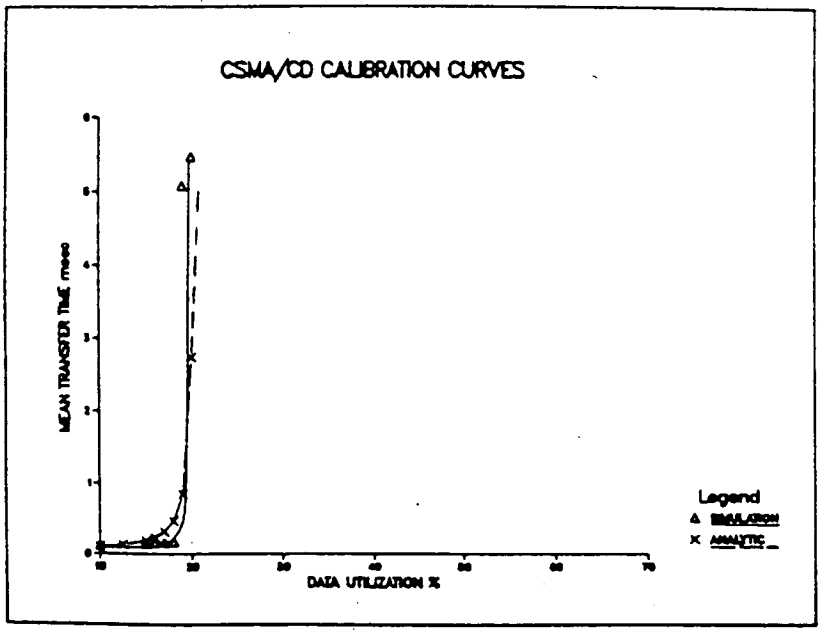


Figure F.17 RESQ CSMA/CD Simulation Results

APPENDIX G

FUNCTION DESIGN CHARACTERISTICS

FUNCTIONAL REQUIREMENTS DATA BASE
DESIGN CHARACTERISTICS FIELD DESCRIPTION

This list of definitions will help the reader understand the entries of the design characteristic section of the SSDS functional requirements data base.

ENTRY	DESCRIPTION
Data Source	Contains the documents that contributed to the design characteristics of the function
Methodology	Two lines indicating methods used to define the design characteristics
Response Time	Maximum acceptable delay (in msec) from input to output including function execution time.
Command Level	One or more characters indicating level hierarchy A - Automatic - no operator activity required I - Interactive - some operator activity required M - Manual - much operator activity required N - Not Determined
Command Location	One or more characters indicating command source hierarchy U - User site G - Ground O - Onboard I - Internal to function N - Not Determined
Data Quality	Maximum bit error rate at final destination in errors per 10^6 bits
Synchronization	Up to two other functions not directly connected by I/O which must be synchronized with this function
Dependency	Single character showing dependency U - User Remote Facility G - SSDS Ground Element S - SSDS Space Element I - Independent of other locations N - Not Determined

Physical Location Code	Indicate code as: M - Multiple H - Habitability module P - Pressurized laboratory module L - Logistics module N - Multiple berthing module R - Resource module X - Exterior mounting C - Constellation F - Remote free-flier G - Ground station U - User site S - Safe Haven D - Don't care T - TBD
Diagnostics Req'd	Single character indicating yes or no for diagnosis or self-check (presence of diagnostics implies that there is a data flow output to CORE STAT)
Interval	Time between diagnostic cycles in sec
Instructions	Average number of instructions executed when this function is triggered in kilo instructions per cycle
Repetition Rate	Average rate that this function is executed (per time units specified below)
Repetition Units	Three character set giving repetition rate units /ms - per millisecond /s - per second /mn - per minute /hr - per hour /da - per day
Program Size	Size of program in Kbytes (resident in CPU)
Data Requirement	Processor storage in Kbytes (resident in CPU)
Secondary Storage	Storage amount in Kbytes (on line - on a hard disk, for example)

Perishability % , Time	Indicates percent perishable in hours (what percent of the data in secondary storage becomes obsolete over time?; what is the average update interval?)
Archive Storage	Amount of offline storage in Kbytes
No. of Displays	Number of display formats which are used to monitor and control the function (one display format may be used to display many different parameters)

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.1 NAME: ACQUIRE REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	30.00 KBYTES	60.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.1P NAME: ACQUIRE REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	7.00 KIPC	10.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	14.00 KBYTES
DATA REQUIREMENT:	21.00 KBYTES	42.00 KBYTES
DATA STORAGE: SECONDARY:	14.00 KBYTES	14.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.2 NAME: PRIORITIZE REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	8.00 KBYTES	8.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.2P NAME: PRIORITIZE REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTFUCTIONS PER CYCLE:	0.70 KIPC	1.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	2.80 KBYTES	5.60 KBYTES
DATA REQUIREMENT:	1.40 KBYTES	2.80 KBYTES
DATA STORAGE: SECONDARY:	5.60 KBYTES	8.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.3 NAME: MONITOR REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.3P NAME: MONITOR REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.40 KIPC	2.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	3.50 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	1.40 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	6.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.4 NAME: DISPATCH REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	5.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.4P NAME: DISPATCH REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.50 KIPC	5.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	14.00 KBYTES
DATA REQUIREMENT:	3.50 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	14.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.5 NAME: FORMAT REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	8.00 KIPC	8.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	40.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.5P NAME: FORMAT REALTIME DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.60 KIPC	8.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	28.00 KBYTES
DATA REQUIREMENT:	7.00 KBYTES	14.00 KBYTES
DATA STORAGE: SECONDARY:	28.00 KBYTES	34.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.1 NAME: ACQUIRED DELAYED PAYLOAD DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	50.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	200.00 KBYTES	400.00 KBYTES
DATA STORAGE: SECONDARY:	4000000.00 KBYTES	8000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.1P NAME: ACQUIRED DELAYED PAYLOAD DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	35.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	14.00 KBYTES
DATA REQUIREMENT:	150.00 KBYTES	300.00 KBYTES
DATA STORAGE: SECONDARY:	3000000.00 KBYTES	6000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.2 NAME: PRIORITIZE DELAYED DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	8.00 KBYTES	8.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.2P NAME: PRIORITIZE DELAYED DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.70 KIPC	1.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	2.80 KBYTES	5.60 KBYTES
DATA REQUIREMENT:	1.40 KBYTES	2.80 KBYTES
DATA STORAGE: SECONDARY:	5.60 KBYTES	8.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.3 NAME: MONITOR DELAYED DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.3P NAME: MONITOR DELAYED DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.40 KIPC	2.00 KIPC
REPETITION RATE:	0.70/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	3.50 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	1.40 KBYTES	2.80 KBYTES
DATA STORAGE: SECONDARY:	7.00 KBYTES	14.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.4 NAME: DISPATCH DELAYED DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	5.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	200.00 KBYTES	400.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.4P NAME: DISPATCH DELAYED DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.50 KIPC	5.00 KIPC
REPETITION RATE:	7.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	14.00 KBYTES
DATA REQUIREMENT:	140.00 KBYTES	280.00 KBYTES
DATA STORAGE: SECONDARY:	14.00 KBYTES	28.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.5 NAME: FORMAT DELAYED DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	5.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	40.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.5P NAME: FORMAT DELAYED DATA

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.50 KIPC	5.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	28.00 KBYTES
DATA REQUIREMENT:	7.00 KBYTES	14.00 KBYTES
DATA STORAGE: SECONDARY:	28.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.1 NAME: PRE-PROCESSING

DATA SOURCES: WOODS HOLE DATABASE, EXPERIENCE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATABASE.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH: NONE

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.00 KIPC		3.00 KIPC	
REPETITION RATE:	33.00/MS		33.00/MS	
PROCESSOR MEMORY: PROGRAM SIZE:	8.00 KBYTES		8.00 KBYTES	
DATA REQUIREMENT:	0.00 KBYTES		0.00 KBYTES	
DATA STORAGE: SECONDARY:	0.00 KBYTES		0.00 KBYTES	
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	0.00 KBYTES		0.00 KBYTES	
# OF DISPLAYS:	10		10	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.2 NAME: DATA CAPTURE

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: AN ENGINEERING ANALYSIS BASED ON WOODS HOLE DATA BASE.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	34.00/MS	34.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	10000.00 KBYTES	10000.00 KBYTES
PERISHABILITY:	20.00% IN 1.00HRS	20.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	10

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20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.3 NAME: ROUTING AND TRANSMISSION

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATA BASE.
200

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	30.00 KIPC
REPETITION RATE:	23.00/MS	23.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	60.00 KBYTES	90.00 KBYTES
DATA REQUIREMENT:	10000.00 KBYTES	12000.00 KBYTES
DATA STORAGE: SECONDARY:	10000.00 KBYTES	15000.00 KBYTES
PERISHABILITY:	10.00% IN 1.00HRS	10.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	12

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.4 NAME: QUALITY VERIFICATION

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ANALYSIS IS BASED ON WOODS HOLE DATABASE.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.10 KIPC
REPETITION RATE:	34.00/MS	34.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	1.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.1 NAME: CUSTOMER DATA INTERFACE MGT

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATABASE

RESPONSE TIME: I/O DELAY ALLOWABLE: 50000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: U,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH: 1.4.5

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.00 KIPC
REPETITION RATE:	11.00/MS	11.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	6.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	5000.00 KBYTES	10000.00 KBYTES
PERISHABILITY:	20.00% IN 1.00HRS	20.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	20	20

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.2 NAME: CUSTOMER DATA CAPTURE

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATABASE

RESPONSE TIME: I/O DELAY ALLOWABLE: 5000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: U,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH: 1.4.5 1.4.7

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	5.00 KIPC
REPETITION RATE:	11.00/MS	11.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	5	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.3 NAME: CUSTOMER DATA HANDLING

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATABASE

RESPONSE TIME: I/O DELAY ALLOWABLE: 5000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: U,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH: 1.4.1 1.4.8

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	11.00/MS	11.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	3.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	35	40

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.4 NAME: ANCILLARY DATA ACQUISITION

DATA SOURCES:

METHODOLOGY: ENGINEERING ANALYSIS BASED ON ASSUMED CUSTOMER RESPONSE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1800000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: U,G RATE: 256.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 21600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	31.00/S	31.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	3.00 KBYTES	3.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	5	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.5 NAME: LEVEL 0 PROCESSING

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATABASE

RESPONSE TIME: I/O DELAY ALLOWABLE: 5000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: U,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH: 1.4.1 1.4.2

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	50.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/MS	1.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	150.00 KBYTES	150.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	20	20

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.6 NAME: CUSTOMER DATA ACCOUNTING

DATA SOURCES:

METHODOLOGY: ENGINEERING ANALYSIS BASED ON ASSUMED CUSTOMER RESP

RESPONSE TIME: I/O DELAY ALLOWABLE: 1800000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: U,G RATE: 2.40

DATA QUALITY: MAXIMUM BIT ERROR RATE: 100.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 86400.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	7.00/S	7.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	3.00 KBYTES	3.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	12

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.7 NAME: ROUTING AND TRANSMISSION

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATABASE

RESPONSE TIME: I/O DELAY ALLOWABLE: 5000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: U,G RATE: 90000.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH: 1.4.1 1.4.2

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	20.00 KIPC
REPETITION RATE:	11.00/MS	11.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	60.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	20	25

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.1 NAME: CORE DATA INTERFACE MANAGEMENT

DATA SOURCES:

METHODOLOGY: CORE DATA TRAFFIC ANALYSIS. ASSUME AVG. WORST CASE OF 256 KBPS TLM IN 1 KBYTE PACKETS.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.75 KIPC
REPETITION RATE:	31.00/S	31.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	6.00 KBYTES	9.00 KBYTES
DATA REQUIREMENT:	12.00 KBYTES	18.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.1P NAME: CORE DATA INTERFACE MANAGEMENT

DATA SOURCES:

METHODOLOGY: CORE DATA TRAFFIC ANALYSIS. ASSUME AVG. WORST CASE OF 64 KBPS TLM IN 1 KBYTE PACKETS.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.75 KIPC
REPETITION RATE:	8.00/S	8.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	6.00 KBYTES	9.00 KBYTES
DATA REQUIREMENT:	12.00 KBYTES	18.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.2 NAME: CORE DATA CAPTURE

DATA SOURCES:

METHODOLOGY: CORE DATA TRAFFIC ANALYSIS. ASSUME WORST CASE OF 256 KBPS TLM IN 1KBYTE PACKETS.

RESPONSE TIME: I/O DELAY ALLOWABLE: 600.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	31.00/S	31.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	32.00 KBYTES	48.00 KBYTES
DATA STORAGE: SECONDARY:	2400000.00 KBYTES	2400000.00 KBYTES
PERISHABILITY:	0.00% IN 4.00HRS	0.00% IN 4.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.2P NAME: CORE DATA CAPTURE

DATA SOURCES:

METHODOLOGY: CORE DATA TRAFFIC ANALYSIS. ASSUME WORST CASE OF 64 KBPS TLM IN 1KBYTE PACKETS.

RESPONSE TIME: I/O DELAY ALLOWABLE: 600.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	8.00/S	8.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	32.00 KBYTES	48.00 KBYTES
DATA STORAGE: SECONDARY:	600000.00 KBYTES	600000.00 KBYTES
PERISHABILITY:	0.00% IN 4.00HRS	0.00% IN 4.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.3 NAME: DATA EXTRACTION

DATA SOURCES:

METHODOLOGY: CORE DATA TRAFFIC ANALYSIS. ASSUME WORST CASE OF 256 KBPS TLM IN 1 KBYTE PACKETS; NO EU CONVERSION REQUIRED.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.05 KIPC	0.05 KIPC
REPETITION RATE:	31.00/S	31.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.20 KBYTES	0.20 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.3P NAME: DATA EXTRACTION

DATA SOURCES:

METHODOLOGY: CORE DATA TRAFFIC ANALYSIS. ASSUME WORST CASE OF 64 KBPS TLM IN 1 KBYTE PACKETS; NO EU CONVERSION REQUIRED.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.05 KIPC	0.05 KIPC
REPETITION RATE:	8.00/S	8.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.20 KBYTES	0.20 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.4 NAME: DISPLAYS AND CONTROLS

DATA SOURCES:

METHODOLOGY: ENG ANLYS OF STS OPS;CORE DATA TRAFFIC ANLYS. I/O ESTIMATED PER WORKSTN. PROC REQ ESTIMATED FOR TOTAL NO OF WORKSTATIONS(50).

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	150000.00 KIPC	225000.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	100000.00 KBYTES	150000.00 KBYTES
DATA REQUIREMENT:	100000.00 KBYTES	150000.00 KBYTES
DATA STORAGE: SECONDARY:	10000000.00 KBYTES	15000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2500	3750

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.4P NAME: DISPLAYS AND CONTROLS

DATA SOURCES:

METHODOLOGY: ENG ANLYS OF OPS;CORE DATA TRAFFIC ANLYS. I/O ESTIMATED PER WORKSTN. PROC REQ ESTIMATED FOR TOTAL NO OF WORKSTATIONS(20).

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	60000.00 KIPC	90000.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	40000.00 KBYTES	60000.00 KBYTES
DATA REQUIREMENT:	40000.00 KBYTES	60000.00 KBYTES
DATA STORAGE: SECONDARY:	4000000.00 KBYTES	6000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1000	1500

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.5 NAME: ENGINEERING DATA ANALYSIS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 600.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	15000.00 KIPC	22500.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10000.00 KBYTES	15000.00 KBYTES
DATA REQUIREMENT:	10000.00 KBYTES	15000.00 KBYTES
DATA STORAGE: SECONDARY:	1000000.00 KBYTES	1500000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	250	375

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.5P NAME: ENGINEERING DATA ANALYSIS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 600.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	15000.00 KIPC	22500.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10000.00 KBYTES	15000.00 KBYTES
DATA REQUIREMENT:	10000.00 KBYTES	15000.00 KBYTES
DATA STORAGE: SECONDARY:	1000000.00 KBYTES	1500000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	250	375

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.6 NAME: CORE DATA ACCOUNTING

DATA SOURCES:

METHODOLOGY: ENG ANALYSIS. SPACE STATION TLM ONLY. 32 KBYTES/SEC / 5 (COMPRESSION) * 2 (DB OVERHEAD) * 2 YEARS=SS ENG DATA

RESPONSE TIME: I/O DELAY ALLOWABLE: 600.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	8000.00 KIPC	12000.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	2000.00 KBYTES	3000.00 KBYTES
DATA REQUIREMENT:	2000.00 KBYTES	3000.00 KBYTES
DATA STORAGE: SECONDARY:	100000.00 KBYTES	900000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	800000000.00 KBYTES	800000000.00 KBYTES
# OF DISPLAYS:	100	150

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.6P NAME: CORE DATA ACCOUNTING

DATA SOURCES:

METHODOLOGY: ENG ANALYSIS. PLATFORM TLM ONLY. 5 KBYTES/SEC / 5 (COMPRESSION) * 2 (DB OVERHEAD) * 2 YEARS=SS ENG DATA

RESPONSE TIME: I/O DELAY ALLOWABLE: 600.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	8000.00 KIPC	12000.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	2000.00 KBYTES	3000.00 KBYTES
DATA REQUIREMENT:	2000.00 KBYTES	3000.00 KBYTES
DATA STORAGE: SECONDARY:	6000000.00 KBYTES	900000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	200000000.00 KBYTES	200000000.00 KBYTES
# OF DISPLAYS:	100	150

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.1 NAME: VALIDATE PAYLOAD COMMANDS DATA

DATA SOURCES: WOODS HOLE. DATABASE AND CCSDS COMMAND FORMAT

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATABASE AND CCSDS COMMAND FORMAT

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	10.00/HR	15.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	40.00 KBYTES
DATA STORAGE: SECONDARY:	10000.00 KBYTES	20000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	20

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.1P NAME: VALIDATE PLATFORM PAYLOAD COMMANDS DATA

DATA SOURCES: WOODS HOLE. DATABASE AND CCSDS COMMAND FORMAT

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATABASE AND CCSDS COMMAND FORMAT

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	10.00/HR	15.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	40.00 KBYTES
DATA STORAGE: SECONDARY:	10000.00 KBYTES	20000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	20

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.2 NAME: CHECK SSDS SERVICE REQUIREMENTS

DATA SOURCES: WOODS HOLE DATABASE AND CCSDS COMMAND FORMAT

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATBASE AND CCSDS COMMAND FORMAT

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.50 KIPC
REPETITION RATE:	20.00/MN	30.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	50.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	5	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.2P NAME: CHECK PLATFORM P/L COMMAND RESTRICTION/CONSTRAINT

DATA SOURCES: WOODS HOLE DATABASE AND CCSDS COMMAND FORMAT

METHODOLOGY: ENGINEERING ANALYSIS BASED ON WOODS HOLE DATBASE AND CCSDS COMMAND FORMAT

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.50 KIPC
REPETITION RATE:	20.00/MN	30.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	50.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	5	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.1 NAME: AUTHORIZE OPERATOR

DATA SOURCES: EXPERIENCE

METHODOLOGY: ESTIMATE ACCEPTABLE DELAY TO OPERATOR SIGN-ON AT 10 SECONDS.
ESTIMATE STORAGE FOR LIST OF OPERATIONS ALLOWED PER OPERATOR.

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	10.00/HR	15.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	40.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.1P NAME: AUTHORIZE OPERATOR

DATA SOURCES: EXPERIENCE

METHODOLOGY: ESTIMATE ACCEPTABLE DELAY TO OPERATOR SIGN-ON AT 10 SECONDS.
ESTIMATE STORAGE FOR LIST OF OPERATIONS ALLOWED PER OPERATOR.

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	10.00/HR	15.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	40.00 KBYTES
DATA STORAGE: SECONDARY:	500.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.2 NAME: AUTHORIZE OPERATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH: NONE

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.50 KIPC	4.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	25.00 KBYTES	50.00 KBYTES
DATA STORAGE: SECONDARY:	500.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.2P NAME: AUTHORIZE OPERATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH: NONE

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.50 KIPC	4.00 KIPC
REPETITION RATE:	20.00/HR	20.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	25.00 KBYTES	50.00 KBYTES
DATA STORAGE: SECONDARY:	500.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.4 NAME: PROVIDE ANCILLARY DATA

DATA SOURCES:

METHODOLOGY: EST. 20 SUBSYSTEMS REQUESTING 100 BYTES (800 BITS) ONCE PER SECOND VIA 10 BYTE (80 BIT) REQUEST. EST. STORES AT 10 TIMES REQ

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 176.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH: 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC		0.30 KIPC	
REPETITION RATE:	22.00/S		30.00/S	
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES		3.00 KBYTES	
DATA REQUIREMENT:	10.00 KBYTES		20.00 KBYTES	
DATA STORAGE: SECONDARY:	0.00 KBYTES		0.00 KBYTES	
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	0.00 KBYTES		0.00 KBYTES	
# OF DISPLAYS:	0		1	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.4P NAME: PROVIDE ANCILLARY DATA

DATA SOURCES:

METHODOLOGY: EST. 20 SUBSYSTEMS REQUESTING 100 BYTES (800 BITS) ONCE PER SECOND VIA 10 BYTE (80 BIT) REQUEST. EST. STORES AT 10 TIMES REQ

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 176.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH: 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.14 KIPC		0.21 KIPC	
REPETITION RATE:	22.00/S		30.00/S	
PROCESSOR MEMORY: PROGRAM SIZE:	1.40 KBYTES		2.10 KBYTES	
DATA REQUIREMENT:	7.00 KBYTES		14.00 KBYTES	
DATA STORAGE: SECONDARY:	0.00 KBYTES		0.00 KBYTES	
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	0.00 KBYTES		0.00 KBYTES	
# OF DISPLAYS:	0		0	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.1 NAME: CUSTOMER DATA PROCESSING

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 3.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: O INTERVAL: 15.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.50 KIPC	2.50 KIPC
REPETITION RATE:	4.00/MN	4.00/
PROCESSOR MEMORY: PROGRAM SIZE:	100.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	1500.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	20

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.1P NAME: CUSTOMER DATA PROCESSING

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 3.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: O INTERVAL: 15.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.50 KIPC	2.50 KIPC
REPETITION RATE:	2.00/MN	2.00/
PROCESSOR MEMORY: PROGRAM SIZE:	100.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	1500.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	20

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.2 NAME: CUSTOMER PAYLOAD OPERATION

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 3.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 15 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.00 KIPC
REPETITION RATE:	4.00/MN	4.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	25.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	25.00 KBYTES	50.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.2P NAME: CUSTOMER PAYLOAD OPERATION

DATA SOURCES: WOODS HOLE DATABASE

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 3.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 15 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	25.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	25.00 KBYTES	50.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.1 NAME: OTV SERVICE

DATA SOURCES: TMS-MSFC 6/83,COMM 1309

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	1.00 KIPC
REPETITION RATE:	0.00/MN	6.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	0.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	100.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.2 NAME: OTV CHECKOUT & DIAGNOSTICS

DATA SOURCES: TMS-MSFC 6/83, COMM 1309, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	26.00 KIPC
REPETITION RATE:	0.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	0.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	9000.00 KBYTES
# OF DISPLAYS:	0	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.3 NAME: OTV DEPLOYMENT/RETRIEVAL

DATA SOURCES: TMS-MSFC 6/83, COMM 1309, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 4.2.3

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.10 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	1.00 KIPC
REPETITION RATE:	0.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	0.00 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	2

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20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.4 NAME: OTV OPERATION

DATA SOURCES: TMS-MSFC 6/83, COMM 1309, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	2.00 KIPC
REPETITION RATE:	0.00/HR	60.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	0.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.5 NAME: OTV STATUS

DATA SOURCES: TMS-MSFC 6/83, COMM 1309, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: F

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	3.00 KIPC
REPETITION RATE:	0.00/MN	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.1 NAME: OMV SERVICE

DATA SOURCES: TMS-MSFC 6/83, COMM 1304

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.75 KIPC	1.00 KIPC
REPETITION RATE:	6.00/MN	6.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	6.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	75.00 KBYTES	100.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.2 NAME: OMV CHECKOUT & DIAGNOSTICS

DATA SOURCES: TMS-MSFC 6/83, COMM 1304, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	26.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	75.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	75.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	75.00 KBYTES	100.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	9000.00 KBYTES	9000.00 KBYTES
# OF DISPLAYS:	5	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.3 NAME: OMV DEPLOYMENT/RETRIEVAL

DATA SOURCES: TMS-MSFC 6/83, COMM 1304, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 4.2.3

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.10 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	3.80 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.4 NAME: REMOTE OPERATIONS CONTROL

DATA SOURCES: TMS-MSFC 6/83, COMM 1304, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	5.00/S	5.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	21.00 KBYTES
DATA REQUIREMENT:	6.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.5 NAME: OMV OPERATION

DATA SOURCES: TMS-MSFC 6/83, COMM 1304, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: 0 RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.00 KIPC
REPETITION RATE:	60.00/HR	60.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	8.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.6 NAME: OMV STATUS (TO REMOTE CUSTOMER)

DATA SOURCES: TMS-MSFC 6/83, COMM 1304, OMV REQ'TS 1/85

METHODOLOGY:
ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: F

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	8.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.5 NAME: CUSTOMER PAYLOAD CHECKOUT/SERVICE

DATA SOURCES: TMS-MSFC 6/83, COMM 1309, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	25.00 KIPC	25.00 KIPC
REPETITION RATE:	0.10/DA	0.10/
PROCESSOR MEMORY: PROGRAM SIZE:	25.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	1200.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	100.00% IN 200.00HRS	100.00% IN 200.00HRS
ARCHIVAL:	9000.00 KBYTES	9000.00 KBYTES
# OF DISPLAYS:	10	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.6 NAME: SSPE CHECKOUT AND SERVICING

DATA SOURCES: TMS-MSFC 6/83, COMM 1309, OMV REQ'TS 1/85

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	25.00 KIPC	25.00 KIPC
REPETITION RATE:	2.00/DA	2.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	100.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	1000.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	100.00% IN 200.00HRS	100.00% IN 200.00HRS
ARCHIVAL:	9000.00 KBYTES	9000.00 KBYTES
# OF DISPLAYS:	10	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.1 NAME: DEVELOP NORMAL DAY PAYLOAD OPERATIONS

DATA SOURCES:

METHODOLOGY: RFP + CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: U RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	64.00 KIPC	75.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	126.00 KBYTES	200.00 KBYTES
DATA REQUIREMENT:	360.00 KBYTES	400.00 KBYTES
DATA STORAGE: SECONDARY:	750.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	504.00 KBYTES	620.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.1P NAME: DEVELOP NORMAL DAY PAYLOAD OPERATIONS

DATA SOURCES:

METHODOLOGY: RFP + CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: U RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	40.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	60.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	500.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	200.00 KBYTES	300.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.2 NAME: DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS

DATA SOURCES:

METHODOLOGY: RFP + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	64.00 KIPC	75.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	126.00 KBYTES	200.00 KBYTES
DATA REQUIREMENT:	360.00 KBYTES	400.00 KBYTES
DATA STORAGE: SECONDARY:	750.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	504.00 KBYTES	620.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.2P NAME: DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS

DATA SOURCES:

METHODOLOGY: RFP + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	40.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	60.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	500.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	200.00 KBYTES	300.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.3 NAME: DEVELOP MODE COMPATIBILITY MATRIX

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	64.00 KIPC	75.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	126.00 KBYTES	200.00 KBYTES
DATA REQUIREMENT:	200.00 KBYTES	300.00 KBYTES
DATA STORAGE: SECONDARY:	600.00 KBYTES	700.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.3P NAME: DEVELOP MODE COMPATIBILITY MATRIX

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	40.00 KIPC	50.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	100.00 KBYTES	150.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	400.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.4 NAME: DEVELOP MAJOR EVENT OPERATIONS

DATA SOURCES:

METHODOLOGY: RFP + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	64.00 KIPC	75.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	126.00 KBYTES	200.00 KBYTES
DATA REQUIREMENT:	360.00 KBYTES	400.00 KBYTES
DATA STORAGE: SECONDARY:	750.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	504.00 KBYTES	620.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.4P NAME: DEVELOP MAJOR EVENT OPERATIONS

DATA SOURCES:

METHODOLOGY: RFP + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	35.00 KIPC	50.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	70.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	500.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	200.00 KBYTES	300.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.1 NAME: CONFIRM PAYLOAD AND CORE SCHEDULES

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	400.00 KBYTES	500.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.1P NAME: CONFIRM PAYLOAD AND CORE SCHEDULES

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	30.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	40.00 KBYTES	60.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	120.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	240.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	300.00 KBYTES	350.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.2 NAME: INCORPORATE NEW/REVISED OPERATIONS

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	400.00 KBYTES	500.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.2P NAME: INCORPORATE NEW/REVISED OPERATIONS

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	25.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	40.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	120.00 KBYTES	150.00 KBYTES
DATA STORAGE: SECONDARY:	150.00 KBYTES	175.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	300.00 KBYTES	400.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.3 NAME: CHECK FOR CONFLICTS

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	100.00 KBYTES	120.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.3P NAME: CHECK FOR CONFLICTS

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	25.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	40.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	130.00 KBYTES
DATA STORAGE: SECONDARY:	150.00 KBYTES	170.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	100.00 KBYTES	120.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.4 NAME: CHECK FOR FACILITIES CAPABILITIES

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: N RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	100.00 KBYTES	120.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.4P NAME: CHECK FOR FACILITIES CAPABILITIES

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: N RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	25.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	40.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	120.00 KBYTES
DATA STORAGE: SECONDARY:	150.00 KBYTES	170.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS S
ARCHIVAL:	100.00 KBYTES	120.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.5P NAME: RESOLVE CONFLICTS

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	25.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	40.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	120.00 KBYTES	170.00 KBYTES
DATA STORAGE: SECONDARY:	150.00 KBYTES	200.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	100.00 KBYTES	120.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.6 NAME: MAINTAIN SHORT TERM SCHEDULES

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	400.00 KBYTES	500.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.6P NAME: MAINTAIN SHORT TERM SCHEDULES

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	25.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	40.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	120.00 KBYTES
DATA STORAGE: SECONDARY:	150.00 KBYTES	170.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	300.00 KBYTES	400.00 KBYTES
# OF DISPLAYS:	5	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.1 NAME: TIME TAG OPERATIONS

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	30.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	70.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	130.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	240.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	300.00 KBYTES	350.00 KBYTES
# OF DISPLAYS:	5	6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.1P NAME: TIME TAG OPERATIONS

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	15.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	50.00 KBYTES	60.00 KBYTES
DATA STORAGE: SECONDARY:	100.00 KBYTES	150.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	300.00 KBYTES	350.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.2 NAME: CHECK SCHEDULE CONFLICTS

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	400.00 KBYTES	500.00 KBYTES
# OF DISPLAYS:	5	6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.2P NAME: CHECK SCHEDULE CONFLICTS

DATA SOURCES:

METHODOLOGY: CRSS + EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	30.00 KIPC	35.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	60.00 KBYTES	70.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	120.00 KBYTES
DATA STORAGE: SECONDARY:	150.00 KBYTES	175.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	100.00 KBYTES	200.00 KBYTES
# OF DISPLAYS:	3	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.3 NAME: MAINTAIN OPERATING EVENTS SCHEDULE

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	400.00 KBYTES	500.00 KBYTES
# OF DISPLAYS:	5	6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.3P NAME: MAINTAIN OPERATING EVENTS SCHEDULE

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	400.00 KBYTES	500.00 KBYTES
# OF DISPLAYS:	5	6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.4 NAME: ADJUST FOR UNSCHEDULED MODE CHANGES

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	36.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	72.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	205.00 KBYTES	230.00 KBYTES
DATA STORAGE: SECONDARY:	300.00 KBYTES	340.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	400.00 KBYTES	500.00 KBYTES
# OF DISPLAYS:	5	6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.4P NAME: ADJUST FOR UNSCHEDULED MODE CHANGES

DATA SOURCES:

METHODOLOGY: EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	28.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	65.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	120.00 KBYTES
DATA STORAGE: SECONDARY:	150.00 KBYTES	170.00 KBYTES
PERISHABILITY:	10.00% IN 336.00HRS	10.00% IN 336.00HRS
ARCHIVAL:	200.00 KBYTES	250.00 KBYTES
# OF DISPLAYS:	5	6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.1 NAME: SEQUENCE PAYLOAD OPERATIONS

DATA SOURCES: Engineering Estimate

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.01 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.20 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.1P NAME: SEQUENCE PAYLOAD OPERATIONS

DATA SOURCES: Engineering Estimate

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 50.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.01 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	6.00/MIN	6.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.2 NAME: SEQUENCE CORE SYSTEM OPERATIONS

DATA SOURCES: Engineering Estimate

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.01 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.20 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.2P NAME: SEQUENCE CORE SYSTEM OPERATIONS

DATA SOURCES: Engineering Estimate

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.01 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	6.00/MIN	6.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.3 NAME: COMMAND SCHEDULED MODE CHANGE

DATA SOURCES: Engineering Estimate

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.01 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	12.00/HR	12.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.3P NAME: COMMAND SCHEDULED MODE CHANGE

DATA SOURCES: Engineering Estimate

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.01 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	12.00/HR	12.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.4 NAME: CHECK FOR EXECUTABILITY

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	15.00 KIPC	20.00 KIPC
REPETITION RATE:	6.00/MIN	10.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	40.00 KBYTES
DATA REQUIREMENT:	6.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	60.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.4P NAME: CHECK FOR EXECUTABILITY

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	15.00 KIPC
REPETITION RATE:	6.00/MIN	10.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	30.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	3

24-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.1 NAME: SPACE CRAFT STATE/ORBIT DETERMINATION

DATA SOURCES: SHUTTLE ONBOARD SOFTWARE SIZING & LOADING DATA BASE

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	22.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	17.00 KBYTES
DATA STORAGE: SECONDARY:	70.00 KBYTES	100.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.1PNAME: SPACE CRAFT STATE/ORBIT DETERMINATION

DATA SOURCES: SHUTTLE ONBOARD SOFTWARE SIZING & LOADING DATA BASE

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	11.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	17.00 KBYTES
DATA STORAGE: SECONDARY:	18.00 KBYTES	9.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

24-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.2 NAME: CONSTELLATION STATE/ORBIT DETERMINATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	50.00 KIPC	100.00 KIPC
REPETITION RATE:	0.25/S	0.25/S
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	75.00 KBYTES
DATA REQUIREMENT:	40.00 KBYTES	80.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	300.00 KBYTES
PERISHABILITY:	2.00% IN 0.25HRS	2.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.3 NAME: DETERMINE EPHEMERIDES (SUN, MOON, ETC.)

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES	3.50 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	4.00 KBYTES	4.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.3PNAME: DETERMINE EPHEMERIDES (SUN, MOON, ETC.)

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES	3.50 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	4.00 KBYTES	4.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.4 NAME: ATTITUDE DETERMINATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	53.00 KBYTES	60.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	22.00 KBYTES
DATA STORAGE: SECONDARY:	106.00 KBYTES	106.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.4PNAME: ATTITUDE DETERMINATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	35.00 KBYTES	42.00 KBYTES
DATA REQUIREMENT:	14.00 KBYTES	16.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	15.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.5 NAME: NAVIGATION STATE PROPAGATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	11.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	40.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.5PNAME: NAVIGATION STATE PROPAGATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	11.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	40.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.6 NAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	15.00 KIPC	20.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	40.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	30.00 KBYTES
DATA STORAGE: SECONDARY:	60.00 KBYTES	100.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.6PNAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	12.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	60.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.7 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	8.00 KIPC	10.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	12.00 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	9.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	5	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.7PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	15.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.1 NAME: REBOOST/REENTRY TARGETING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.1PNAME: REBOOST/REENTRY TARGETING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.40 KIPC	2.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	18.00 KBYTES
DATA REQUIREMENT:	3.50 KBYTES	4.50 KBYTES
DATA STORAGE: SECONDARY:	28.00 KBYTES	30.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.2 NAME: MANEUVER COORDINATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.90 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	18.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	12.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	36.00 KBYTES	45.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.2PNAME: MANEUVER COORDINATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.35 KIPC	0.60 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	12.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	12.00 KBYTES
DATA STORAGE: SECONDARY:	24.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.3 NAME: COLLISION CHECK

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	12.00 KIPC
REPETITION RATE:	5.00/MN	5.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	12.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	40.00 KBYTES
PERISHABILITY:	1.00% IN 1.00HRS	1.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.4 NAME: REBOOST MANEUVER

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 250.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	6.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	23.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.4PNAME: REBOOST MANEUVER

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 250.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.50 KIPC	4.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	2.80 KBYTES	3.20 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	18.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.5 NAME: TETHER CONTROL

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	1.00 KIPC
REPETITION RATE:	0.00/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	30.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	1.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.6 NAME: DETERMINE POINTING MOUNT CONTROLS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.50 KIPC	2.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	1.50 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	12.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.6PNAME: DETERMINE POINTING MOUNT CONTROLS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.75 KIPC	1.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	2.50 KBYTES	3.50 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	0.75 KBYTES
DATA STORAGE: SECONDARY:	5.00 KBYTES	6.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.7 NAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	8.00 KBYTES	8.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.7PNAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.30 KIPC	0.40 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.20 KBYTES	1.50 KBYTES
DATA REQUIREMENT:	0.30 KBYTES	0.60 KBYTES
DATA STORAGE: SECONDARY:	3.00 KBYTES	5.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.8 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	5.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	50.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.8PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.00 KIPC	4.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	6.00 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	1.50 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	13.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.1 NAME: CONTROL ATTITUDE AND TRANSLATION

DATA SOURCES: SPACE SHUTTLE ORBITOR AVIONICS SOFTWARE MEMORY DATA BASE

METHODOLOGY: COMPLEXITY MATCHING WITH SIMILAR SUBFUNCTION

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 2.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	30.00 KIPC	45.00 KIPC
REPETITION RATE:	5.00/S	5.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	48.00 KBYTES	56.20 KBYTES
DATA REQUIREMENT:	7.00 KBYTES	10.80 KBYTES
DATA STORAGE: SECONDARY:	57.60 KBYTES	57.60 KBYTES
PERISHABILITY:	100.00% IN 720.00HRS	100.00% IN 720.00HRS
ARCHIVAL:	29.20 KBYTES	29.20 KBYTES
# OF DISPLAYS:	3	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.1PNAME: CONTROL ATTITUDE AND TRANSLATION

DATA SOURCES: SPACE SHUTTLE ORBITOR AVIONICS SOFTWARE MEMORY DATA BASE

METHODOLOGY: COMPLEXITY MATCHING WITH SIMILAR SUBFUNCTION

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 2.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	25.00 KIPC	35.00 KIPC
REPETITION RATE:	5.00/S	5.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	48.00 KBYTES	56.20 KBYTES
DATA REQUIREMENT:	7.00 KBYTES	10.80 KBYTES
DATA STORAGE: SECONDARY:	57.60 KBYTES	57.60 KBYTES
PERISHABILITY:	100.00% IN 720.00HRS	100.00% IN 720.00HRS
ARCHIVAL:	29.20 KBYTES	29.20 KBYTES
# OF DISPLAYS:	3	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.2 NAME: GENERATE ATTITUDE COMMANDS

DATA SOURCES: SPACE SHUTTLE ORBITOR AVIONICS SOFTWARE MEMORY DATABASE

METHODOLOGY: COMPLEXITY MATCHING PER SUBFUNCTION

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 2.50

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 300.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	22.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	240.00 KBYTES	240.00 KBYTES
PERISHABILITY:	100.00% IN 720.00HRS	100.00% IN 720.00HRS
ARCHIVAL:	122.00 KBYTES	122.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.2PNAME: GENERATE ATTITUDE COMMANDS

DATA SOURCES: SPACE SHUTTLE ORBITOR AVIONICS SOFTWARE MEMORY DATABASE

METHODOLOGY: COMPLEXITY MATCHING PER SUBFUNCTION

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 2.50

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 300.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	22.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	240.00 KBYTES	240.00 KBYTES
PERISHABILITY:	100.00% IN 720.00HRS	100.00% IN 720.00HRS
ARCHIVAL:	122.00 KBYTES	122.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.3 NAME: MOMENTUM MANAGEMENT

DATA SOURCES: SPACE STATION ATTITUDE CONTROL SIMULATION

METHODOLOGY: ESTIMATE BASE ON COMPUTER SIMULATION.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.50

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH: 4.1.3.1 4.1.37

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.50 KIPC	2.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	16.00 KBYTES
DATA REQUIREMENT:	1.80 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	1.40 KBYTES	2.00 KBYTES
PERISHABILITY:	100.00% IN 8.00HRS	100.00% IN 8.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.3PNAME: MOMENTUM MANAGEMENT

DATA SOURCES: SPACE STATION ATTITUDE CONTROL SIMULATION

METHODOLOGY: ESTIMATE BASE ON COMPUTER SIMULATION.

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.50

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH: 4.1.3.1 4.1.37

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.50 KIPC	2.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	16.00 KBYTES
DATA REQUIREMENT:	1.80 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	1.40 KBYTES	2.00 KBYTES
PERISHABILITY:	100.00% IN 8.00HRS	100.00% IN 8.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.4 NAME: POINTING MOUNT CONTROL

DATA SOURCES:

METHODOLOGY: ENGINEERING STUDY

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.50 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	21.00 KBYTES	26.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	20.00% IN 12.00HRS	20.00% IN 12.00HRS
ARCHIVAL:	50.00 KBYTES	50.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.4PNAME: POINTING MOUNT CONTROL

DATA SOURCES:

METHODOLOGY: ENGINEERING STUDY

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.50 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	21.00 KBYTES	26.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	20.00% IN 12.00HRS	20.00% IN 12.00HRS
ARCHIVAL:	50.00 KBYTES	50.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.5 NAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	12.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	30.00 KBYTES	30.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.5PNAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	6.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	15.00 KBYTES	15.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.6 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	12.00 KIPC	13.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	32.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	4.50 KBYTES
DATA STORAGE: SECONDARY:	60.00 KBYTES	60.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.6PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	6.00 KIPC	7.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	16.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	4.50 KBYTES
DATA STORAGE: SECONDARY:	30.00 KBYTES	30.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.1 NAME: COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATES

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	8.00 KBYTES	9.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	16.00 KBYTES	16.00 KBYTES
PERISHABILITY:	2.00% IN 0.25HRS	2.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.2 NAME: MANAGE CONSTELLATION ORBIT MANEUVERS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	15.00 KIPC	18.00 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	20.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.3 NAME: SCHEDULE DEPLOYMENT/RENDEZVOUS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.4 NAME: MANAGE RENDEZVOUS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.00 KIPC	4.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	9.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	1.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.5 NAME: TARGET COLLISION AVOIDANCE

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.6 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	12.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	18.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	30.00 KBYTES	30.00 KBYTES
PERISHABILITY:	1.00% IN 0.25HRS	1.00% IN 0.25HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	5	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.1 NAME: LONG RANGE OBJECT TRACKING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	6.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	40.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	80.00 KBYTES	80.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.2 NAME: PROXIMITY TRACKING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	6.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	40.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	80.00 KBYTES	80.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.3 NAME: OBJECT CATALOGUE MAINTENANCE

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	25.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	12.00 KBYTES
DATA STORAGE: SECONDARY:	70.00 KBYTES	70.00 KBYTES
PERISHABILITY:	10.00% IN 1.00HRS	10.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.4 NAME: TRACKING DATA CONDITIONING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	6.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	30.00 KBYTES	30.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.5 NAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	6.00 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	40.00 KBYTES
PERISHABILITY:	1.00% IN 1.00HRS	1.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.6 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	5.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	18.00 KBYTES
DATA STORAGE: SECONDARY:	70.00 KBYTES	70.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.1 NAME: TIME SOURCE MANAGEMENT

DATA SOURCES: SPACE SHUTTLE

METHODOLOGY: EXISTING DESIGN AND CODE

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.01 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: GOI RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC		0.30 KIPC	
REPETITION RATE:	1.00/S		1.00/S	
PROCESSOR MEMORY: PROGRAM SIZE:	0.50 KBYTES		0.70 KBYTES	
DATA REQUIREMENT:	0.20 KBYTES		0.30 KBYTES	
DATA STORAGE: SECONDARY:	0.00 KBYTES		0.00 KBYTES	
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	0.00 KBYTES		0.00 KBYTES	
# OF DISPLAYS:	1		2	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.1PNAME: TIME SOURCE MANAGEMENT

DATA SOURCES: SPACE SHUTTLE

METHODOLOGY: EXISTING DESIGN AND CODE

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.01 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: GOI RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC		0.30 KIPC	
REPETITION RATE:	1.00/S		1.00/S	
PROCESSOR MEMORY: PROGRAM SIZE:	0.50 KBYTES		0.70 KBYTES	
DATA REQUIREMENT:	0.20 KBYTES		0.30 KBYTES	
DATA STORAGE: SECONDARY:	0.00 KBYTES		0.00 KBYTES	
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	0.00 KBYTES		0.00 KBYTES	
# OF DISPLAYS:	0		0	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.2 NAME: TIME UPDATE

DATA SOURCES: SPACE SHUTTLE

METHODOLOGY: EXISTING DESIGN/CODE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC		0.70 KIPC	
REPETITION RATE:	0.00/DA		0.00/S	
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES		3.00 KBYTES	
DATA REQUIREMENT:	0.50 KBYTES		1.00 KBYTES	
DATA STORAGE: SECONDARY:	0.00 KBYTES		0.00 KBYTES	
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	0.00 KBYTES		0.00 KBYTES	
# OF DISPLAYS:	1		1	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.2PNAME: TIME UPDATE

DATA SOURCES: SPACE SHUTTLE

METHODOLOGY: EXISTING DESIGN/CODE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC		0.70 KIPC	
REPETITION RATE:	0.00/DA		0.00/S	
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES		3.00 KBYTES	
DATA REQUIREMENT:	0.50 KBYTES		1.00 KBYTES	
DATA STORAGE: SECONDARY:	0.00 KBYTES		0.00 KBYTES	
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	0.00 KBYTES		0.00 KBYTES	
# OF DISPLAYS:	0		0	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.3 NAME: FREQUENCY SOURCE MANAGEMENT

DATA SOURCES:

METHODOLOGY: ESTIMATE 1/2 OF 4.1.6.1 LESS COMPLEX LOGIC & OPTIONS, BUT MANY INDIVIDUAL

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.70 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	0.30 KBYTES	0.50 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.3PNAME: FREQUENCY SOURCE MANAGEMENT

DATA SOURCES:

METHODOLOGY: ESTIMATE 1/2 OF 4.1.6.1 LESS COMPLEX LOGIC & OPTIONS, BUT MANY INDIVIDUAL

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.70 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	0.30 KBYTES	0.50 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.4 NAME: DEVICE MANAGEMENT

DATA SOURCES: SPACE SHUTTLE (SENSE & REPORT STATUS)

METHODOLOGY: ESTIMATE CYCLIC STATUS AS COMPARABLE TO SHUTTLE. ESTIMATE REQUEST PROCESSING AND CONTROL OUTPUTS AS 1/2 OF 4.1.6.1.

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.30 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.30 KBYTES	0.50 KBYTES
DATA REQUIREMENT:	0.10 KBYTES	0.20 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.4PNAME: DEVICE MANAGEMENT

DATA SOURCES: SPACE SHUTTLE (SENSE & REPORT STATUS)

METHODOLOGY: ESTIMATE CYCLIC STATUS AS COMPARABLE TO SHUTTLE. ESTIMATE REQUEST PROCESSING AND CONTROL OUTPUTS AS 1/2 OF 4.1.6.1.

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.30 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.30 KBYTES	0.50 KBYTES
DATA REQUIREMENT:	0.10 KBYTES	0.20 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.5 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: NONE

METHODOLOGY: ESTIMATE OF DESIGN TO EXTRACT FUNCTION CODE FROM COMMAND AND ROUTE DATA TO SUBFUNCTION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.05 KIPC	0.10 KIPC
REPETITION RATE:	0.00/DA	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	0.20 KBYTES	0.40 KBYTES
DATA REQUIREMENT:	0.10 KBYTES	0.20 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.5PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: NONE

METHODOLOGY: ESTIMATE OF DESIGN TO EXTRACT FUNCTION CODE FROM COMMAND AND ROUTE DATA TO SUBFUNCTION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.05 KIPC	0.10 KIPC
REPETITION RATE:	0.00/DA	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	0.20 KBYTES	0.40 KBYTES
DATA REQUIREMENT:	0.10 KBYTES	0.20 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.1 NAME: EVALUATE ARRAY PERFORMANCE

DATA SOURCES: RFP

METHODOLOGY: ENGINEERING ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 100000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.50 KIPC	10.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	18.00 KBYTES
DATA REQUIREMENT:	12.00 KBYTES	48.00 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	50.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	12.00 KBYTES	48.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.1PNAME: EVALUATE ARRAY PERFORMANCE

DATA SOURCES: RFP

METHODOLOGY: ENGINEERING ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 100000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.50 KIPC	2.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	4.00 KBYTES	6.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	8.00 KBYTES	12.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.2 NAME: CONFIGURE POWER DISTRIBUTION

DATA SOURCES: RFP

METHODOLOGY: ENGINEERING ANALYSIS, REQUIREMENTS EVALUATION, ADAPTATION OF DATA IN TECHNICAL LITERATURE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	28.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	150.00 KBYTES	300.00 KBYTES
DATA STORAGE: SECONDARY:	400.00 KBYTES	600.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	150.00 KBYTES	300.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.2PNAME: CONFIGURE POWER DISTRIBUTION

DATA SOURCES: RFP

METHODOLOGY: ENGINEERING ANALYSIS, REQUIREMENTS EVALUATION, ADAPTATION OF DATA IN TECHNICAL LITERATURE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	28.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	60.00 KBYTES
DATA REQUIREMENT:	12.00 KBYTES	24.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	60.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	80.00 KBYTES	120.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.3 NAME: POWER SOURCE MANAGEMENT

DATA SOURCES: RFP

METHODOLOGY: ENGINEERING ANALYSIS, REQUIREMENTS EVALUATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	19.00 KIPC	35.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	60.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	300.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	100.00 KBYTES	200.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.3PNAME: POWER SOURCE MANAGEMENT

DATA SOURCES: RFP

METHODOLOGY: ENGINEERING ANALYSIS, REQUIREMENTS EVALUATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	19.00 KIPC	35.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	40.00 KBYTES	80.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.4 NAME: ARRAY DEPLOYMENT

DATA SOURCES:

METHODOLOGY: ENGINEERING ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 100000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	2.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	4.00 KBYTES	4.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	8.00 KBYTES	8.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.4PNAME: ARRAY DEPLOYMENT

DATA SOURCES:

METHODOLOGY: ENGINEERING ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 100000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	2.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	2.00 KBYTES	4.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	4.00 KBYTES	8.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.5 NAME: PROJECT ENERGY AVAILABLE

DATA SOURCES: RFP

METHODOLOGY: ENGINEERING ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O G

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 1000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.20 KIPC	1.20 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	6.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	12.00 KBYTES
PERISHABILITY:	90.00% IN 24.00HRS	90.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.5PNAME: PROJECT ENERGY AVAILABLE

DATA SOURCES: RFP

METHODOLOGY: ENGINEERING ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O G

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 1000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.20 KIPC	1.20 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	20.00 KBYTES
PERISHABILITY:	90.00% IN 24.00HRS	90.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.6 NAME: DEVICE MANAGEMENT

DATA SOURCES: F 4.2.2.2

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	25.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	10.00 KBYTES	25.00 KBYTES
# OF DISPLAYS:	2	3

24-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.6PNAME: DEVICE MANAGEMENT

DATA SOURCES: F 4.2.2.2

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	18.00 KIPC	36.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	25.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	1.50 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	5.00 KBYTES	12.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	10.00 KBYTES	25.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.7 NAME: COMMAND I/F PROCESSING

DATA SOURCES: F 5.1.2.3

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.50 KIPC
REPETITION RATE:	1.00/DA	1.00/DAY
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	25.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	3

24-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.7PNAME: COMMAND I/F PROCESSING

DATA SOURCES: F 5.1.2.3

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.50 KIPC
REPETITION RATE:	1.00/DA	1.00/DAY
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	3.00 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	15.00 KBYTES	15.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.1 NAME: MANAGE THERMAL LOAD

DATA SOURCES: RFP,MRWG J8400039,CR

METHODOLOGY: ENGINEERING ANALYSIS AND DESIGN

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: G O

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	15.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	1.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.50 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	50.00 KBYTES
PERISHABILITY:	100.00% IN 12.00HRS	100.00% IN 12.00HRS
ARCHIVAL:	10.00 KBYTES	25.00 KBYTES
# OF DISPLAYS:	20	30

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.1PNAME: MANAGE THERMAL LOAD

DATA SOURCES: RFP,MRWG J8400039,CR

METHODOLOGY: ENGINEERING ANALYSIS AND DESIGN

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: G O

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	2.00/MIN	2.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	1.00 KBYTES
DATA REQUIREMENT:	3.00 KBYTES	4.50 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	15.00 KBYTES
PERISHABILITY:	100.00% IN 12.00HRS	100.00% IN 12.00HRS
ARCHIVAL:	10.00 KBYTES	5.00 KBYTES
# OF DISPLAYS:	10	15

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.2 NAME: THERMAL DEVICE MANAGEMENT

DATA SOURCES: SEE SHEET

METHODOLOGY: ENGINEERING ANALYSIS AND DESIGN

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O O

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	10.00 KBYTES	25.00 KBYTES
# OF DISPLAYS:	10	15

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.2PNAME: THERMAL DEVICE MANAGEMENT

DATA SOURCES: SEE SHEET

METHODOLOGY: ENGINEERING ANALYSIS AND DESIGN

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O O

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.50 KIPC	3.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	25.00 KBYTES
PERISHABILITY:	100.00% IN 12.00HRS	100.00% IN 12.00HRS
ARCHIVAL:	10.00 KBYTES	25.00 KBYTES
# OF DISPLAYS:	3	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.3 NAME: PROJECT THERMAL LOAD CAPACITY

DATA SOURCES: SEE SHEET

METHODOLOGY: ENGINEERING ANALYSIS AND DESIGN

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O O

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	2.00/MN	2.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	1.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.50 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	25.00 KBYTES
PERISHABILITY:	100.00% IN 12.00HRS	100.00% IN 12.00HRS
ARCHIVAL:	10.00 KBYTES	25.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.3PNAME: PROJECT THERMAL LOAD CAPACITY

DATA SOURCES: SEE SHEET

METHODOLOGY: ENGINEERING ANALYSIS AND DESIGN

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: O O

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	2.00/MN	2.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	1.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.50 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	25.00 KBYTES
PERISHABILITY:	100.00% IN 12.00HRS	100.00% IN 12.00HRS
ARCHIVAL:	10.00 KBYTES	25.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.4 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: 5.1.2.3

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.50 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	25.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	3

24-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.4PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: 5.1.2.3

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.50 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	3.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	15.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.1 NAME: MECHANISM CONTROL/SAFETY

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING & LOADING DATABASE

METHODOLOGY: REVIEWED SHUTTLE MECHANISM AND ESTIMATED EXTENSIVE NEEDS FOR SPACE STATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: NONE

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	14.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	24.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.1PNAME: MECHANISM CONTROL/SAFETY

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING & LOADING DATABASE

METHODOLOGY: REVIEWED SHUTTLE MECHANISM AND ESTIMATED EXTENSIVE NEEDS FOR SPACE STATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: NONE

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.40 KIPC	0.60 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	2.80 KBYTES	5.60 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	5.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.2 NAME: MRMS OPERATIONS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING & LOADING DATABASE

METHODOLOGY: EXAMINED RMS DESIGN; ARM CONTROL LINE SHUTTLE, MOBILE PLATFORM CONTROL ESTIMATED FROM RMS & OTHER CMD/RESP S/W

RESPONSE TIME: I/O DELAY ALLOWABLE: 20.00 msec

COMMAND/CONTROL: LEVEL: I,A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 4.2.3.3

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 10000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.60 KIPC	7.20 KIPC
REPETITION RATE:	12.50/S	12.50/
PROCESSOR MEMORY: PROGRAM SIZE:	21.00 KBYTES	42.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	31.00 KBYTES	62.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.3 NAME: MANAGE DOCKING/BERTHING

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE

METHODOLOGY: PARTIAL DATA FROM ACTIVE DOCKING PROCESS PLUS CONTROL ESTIMATES FOR EXTERNAL VEHICLE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: -

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1000000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	6.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	12.00 KBYTES
DATA STORAGE: SECONDARY:	9.00 KBYTES	27.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.3PNAME: MANAGE DOCKING/BERTHING

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE

METHODOLOGY: PARTIAL DATA FROM ACTIVE DOCKING PROCESS PLUS CONTROL ESTIMATES FOR EXTERNAL VEHICLE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: -

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 1000000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.80 KIPC	1.60 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES	3.00 KBYTES
DATA REQUIREMENT:	1.60 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	3.60 KBYTES	5.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.4 NAME: DEVICE MANAGEMENT

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING & LOADING DATA BASE

METHODOLOGY: REVIEWED SEVERAL SIMILAR SOP'S FROM SHUTTLE DESIGN

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I,A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 0

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 20 INTERVAL: 3600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	1.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.4PNAME: DEVICE MANAGEMENT

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING & LOADING DATA BASE

METHODOLOGY: REVIEWED SEVERAL SIMILAR SOP'S FROM SHUTTLE DESIGN

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I,A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 0

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 20 INTERVAL: 3600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.40 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	3.00 KBYTES	6.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.5 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING & LOADING DATA BASE

METHODOLOGY: REVIEWED SIMILAR SHUTTLE DESIGN SUPPORT-DISPLAYS AND KEYBOARD/TLM COMMAND IMPLEMENTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 0

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	6.00 KIPC	15.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	27.00 KBYTES	74.00 KBYTES
DATA REQUIREMENT:	9.00 KBYTES	25.00 KBYTES
DATA STORAGE: SECONDARY:	36.00 KBYTES	99.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	12	33

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.5PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING & LOADING DATA BASE

METHODOLOGY: REVIEWED SIMILAR SHUTTLE DESIGN SUPPORT-DISPLAYS AND KEYBOARD/TLM COMMAND IMPLEMENTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 0

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	4.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	4.00 KBYTES	8.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	12	33

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.1 NAME: CONTROL ATMOS. PRESSURE & COMPOSITION

DATA SOURCES: RFP

METHODOLOGY: RFP PLUS BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 11 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	11	11

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.2 NAME: CONTROL TEMP/HUMIDITY

DATA SOURCES: RFP

METHODOLOGY: RFP PLUS BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 60000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 11 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	7	7

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.3 NAME: POTABLE WATER MANAGEMENT

DATA SOURCES: RFP

METHODOLOGY: RFP PLUS BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 60000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 10 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.4 NAME: GREY WATER MANAGEMENT

DATA SOURCES: RFP

METHODOLOGY: RFP PLUS BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 60000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 10 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.5 NAME: FIRE DETECTION AND CONTROL

DATA SOURCES: RFP

METHODOLOGY: RFP PLUS BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 15 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	15	15

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.6 NAME: DEVICE MANAGEMENT

DATA SOURCES: F 4.2.2.2

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 30.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	500.00 KIPC	500.00 KIPC
REPETITION RATE:	2.00/MN	2.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	10.00 KBYTES	25.00 KBYTES
# OF DISPLAYS:	10	15

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.7 NAME: COMMAND I/F PROCESSING - ECLSS

DATA SOURCES: F 5.1.2.3

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.50 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	25.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.1 NAME: COMMUNICATION NETWORK CONTROL

DATA SOURCES: SS RFP, CRSS, SS REFERENCE CONFIGURATION

METHODOLOGY: REQUIREMENTS ASSESSMENT, COMMUNICATION SYSTEM DEVELOPMENT EXPERIENCE, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: AIM LOCATION: GIO RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	15.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	35.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.1PNAME: COMMUNICATION NETWORK CONTROL

DATA SOURCES: SS RFP, CRSS, SS REFERENCE CONFIGURATION

METHODOLOGY: REQUIREMENTS ASSESSMENT, COMMUNICATION SYSTEM DEVELOPMENT EXPERIENCE, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: AIM LOCATION: GIO RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	15.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.2 NAME: COMMUNICATION EQUIPMENT CONTROL

DATA SOURCES: SS RFP, REF CONFIG,

METHODOLOGY: REQUIREMENTS ANALYSIS, EXPANSION OF REQUIREMENTS BASED ON TECH. LITERATURE & EXPERIENCE, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: AIM LOCATION: O,G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.00 KIPC
REPETITION RATE:	5.00/S	5.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	256.00 KBYTES	256.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.2PNAME: COMMUNICATION EQUIPMENT CONTROL

DATA SOURCES: SS RFP, REF CONFIG,

METHODOLOGY: REQUIREMENTS ANALYSIS, EXPANSION OF REQUIREMENTS BASED ON TECH. LITERATURE & EXPERIENCE, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: AIM LOCATION: O,G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.00 KIPC
REPETITION RATE:	5.00/S	5.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	64.00 KBYTES	64.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.3 NAME: COMMUNICATION EQUIPMENT STATUS MONITORING

DATA SOURCES: CRSS, SS RFP, SS REF CONFIG., TECHNICAL PUBLICATIONS

METHODOLOGY: REQUIREMENTS ASSESSMENT, EXPERIENCE APPLICATION, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 10.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	70.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	25.00 KBYTES
DATA STORAGE: SECONDARY:	512.00 KBYTES	512.00 KBYTES
PERISHABILITY:	100.00% IN 2.00HRS	100.00% IN 2.00HRS
ARCHIVAL:	50000.00 KBYTES	50000.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.3PNAME: COMMUNICATION EQUIPMENT STATUS MONITORING

DATA SOURCES: CRSS, SS RFP, SS REF CONFIG., TECHNICAL PUBLICATIONS

METHODOLOGY: REQUIREMENTS ASSESSMENT, EXPERIENCE APPLICATION, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 10.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	25.00 KBYTES	35.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	25.00 KBYTES
DATA STORAGE: SECONDARY:	128.00 KBYTES	128.00 KBYTES
PERISHABILITY:	100.00% IN 2.00HRS	100.00% IN 2.00HRS
ARCHIVAL:	5000.00 KBYTES	5000.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.4 NAME: FAILURE DETECTION & RECOVERY

DATA SOURCES:

METHODOLOGY: REQUIREMENTS ANALYSIS, EXPERIENCE APPLICATION, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 10.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	20.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	64.00 KBYTES	120.00 KBYTES
DATA STORAGE: SECONDARY:	512.00 KBYTES	512.00 KBYTES
PERISHABILITY:	100.00% IN 2.00HRS	100.00% IN 2.00HRS
ARCHIVAL:	10000.00 KBYTES	10000.00 KBYTES
# OF DISPLAYS:	4	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.4PNAME: FAILURE DETECTION & RECOVERY

DATA SOURCES:

METHODOLOGY: REQUIREMENTS ANALYSIS, EXPERIENCE APPLICATION, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 10.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	20.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	25.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	64.00 KBYTES	64.00 KBYTES
DATA STORAGE: SECONDARY:	128.00 KBYTES	128.00 KBYTES
PERISHABILITY:	100.00% IN 2.00HRS	100.00% IN 2.00HRS
ARCHIVAL:	10000.00 KBYTES	10000.00 KBYTES
# OF DISPLAYS:	4	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.5 NAME: COMMAND PROCESSING

DATA SOURCES: CRSS,SS REF CONF,SS

METHODOLOGY: REQUIREMENTS ASSESSMENT & EVALUATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.5PNAME: COMMAND PROCESSING

DATA SOURCES: CRSS,SS REF CONF,SS

METHODOLOGY: REQUIREMENTS ASSESSMENT & EVALUATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.6 NAME: COMMUNICATION INTERFACE CONTROL

DATA SOURCES: SEE SHEET

METHODOLOGY: REQUIREMENTS ASSESSMENT & EVALUATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.60 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.6PNAME: COMMUNICATION INTERFACE CONTROL

DATA SOURCES: SEE SHEET

METHODOLOGY: REQUIREMENTS ASSESSMENT & EVALUATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.10 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.60 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.7 NAME: TELEMETRY CONTROL

DATA SOURCES: CRSS SS RFP, SS REF CONFIG, TECHNICAL LITERATURE

METHODOLOGY: REQUIREMENTS EVALUATION, EXPERIENCE APPLICATION, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	0.00 KIPC
REPETITION RATE:	4.00/MS	4.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.7PNAME: TELEMETRY CONTROL

DATA SOURCES: CRSS SS RFP, SS REF CONFIG, TECHNICAL LITERATURE

METHODOLOGY: REQUIREMENTS EVALUATION, EXPERIENCE APPLICATION, PEER CONSULTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 1.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	0.00 KIPC
REPETITION RATE:	4.00/MS	4.00/MS
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.1 NAME: CREW PHYSIOLOGICAL MONITORING

DATA SOURCES: NASA-TM58248, NASA-T

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: 0 RATE: 10000.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.40 KIPC	0.40 KIPC
REPETITION RATE:	6.00/MN	6.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	60.00 KBYTES	100.00 KBYTES
# OF DISPLAYS:	3	4

C-6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.2 NAME: MEDICAL DIAGNOSTICS SUPPORT

DATA SOURCES: NASA-TM58248, NASA-TM 58255

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 400.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	6.00/HR	6.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	30.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	40.00 KBYTES	60.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.3 NAME: TREATMENT SUPPORT

DATA SOURCES: NASA-TM 58248, NASA-TM 58255

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	3.00 KBYTES	5.00 KBYTES
DATA STORAGE: SECONDARY:	15.00 KBYTES	22.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	40.00 KBYTES	60.00 KBYTES
# OF DISPLAYS:	3	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.4 NAME: NUTRITION ANALYSIS

DATA SOURCES: NASA-TM58248/58255

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 20.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	10.00/DAY	15.00/DAY
PROCESSOR MEMORY: PROGRAM SIZE:	6.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	6.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	15.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	20.00 KBYTES	30.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.5 NAME: EXERCISE PLANNER

DATA SOURCES: NASA-TM58248, NASA-TM58255

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 10.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.00 KIPC	4.00 KIPC
REPETITION RATE:	10.00/DAY	10.00/DAY
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	15.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	30.00 KBYTES	37.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.6 NAME: PHYSIOLOGICAL DATA TRANSFORMATION & ANALYSIS

DATA SOURCES: NASA-TM 58248, NASA-TM58255

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 400.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.00 KIPC
REPETITION RATE:	5.00/DAY	5.00/DAY
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	30.00 KBYTES	35.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	30.00 KBYTES	35.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.7 NAME: COMMAND I/F PROCESSING - COMM

DATA SOURCES: F 5.1.3.2

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.05 KIPC	0.10 KIPC
REPETITION RATE:	10.00/DA	20.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	0.20 KBYTES	0.40 KBYTES
DATA REQUIREMENT:	0.10 KBYTES	0.20 KBYTES
DATA STORAGE: SECONDARY:	1.00 KBYTES	2.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.1 NAME: CAUTIONS AND WARNINGS

DATA SOURCES: RFP,CRSS

METHODOLOGY: MISSION OPERATIONAL & SUBSYSTEM
REQUIREMENTS ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 8.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: - 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 25000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.10 KIPC
REPETITION RATE:	1.00/DA	0.10/
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	1.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.1PNAME: CAUTIONS AND WARNINGS

DATA SOURCES: RFP,CRSS

METHODOLOGY: MISSION OPERATIONAL & SUBSYSTEM
REQUIREMENTS ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 8.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: - 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 25000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.10 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES	3.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	1.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.2 NAME: ABNORMAL AND EMERGENCY PROCEDURES

DATA SOURCES: RFP,CRSS

METHODOLOGY: MISSION, OPERATIONS, SUBSYSTEMS,AND
CREW INTERFACE ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 16.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: - 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 4 INTERVAL: 25000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.30 KIPC	0.60 KIPC
REPETITION RATE:	1.00/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1000	2000

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.2PNAME: ABNORMAL AND EMERGENCY PROCEDURES

DATA SOURCES: RFP,CRSS

METHODOLOGY: MISSION, OPERATIONS, SUBSYSTEMS,AND
CREW INTERFACE ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 16.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: - 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 4 INTERVAL: 25000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.30 KIPC	0.60 KIPC
REPETITION RATE:	1.00/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	10	20

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.3 NAME: AUTOMATIC CONTROL PROCESSING

DATA SOURCES: RFP

METHODOLOGY: SUBSYSTEM, SAFETY, AND CREW INTERFACE ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 50.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 800.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 0 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 11 INTERVAL: 10000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.40 KIPC
REPETITION RATE:	0.10/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	40.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	400.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.3PNAME: AUTOMATIC CONTROL PROCESSING

DATA SOURCES: RFP

METHODOLOGY: SUBSYSTEM, SAFETY, AND CREW INTERFACE ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 50.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 800.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: 0 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 11 INTERVAL: 10000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.40 KIPC
REPETITION RATE:	0.10/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	100.00 KBYTES	200.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.4 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: RFP,CRSS

METHODOLOGY: SUBSYSTEM, SAFETY, AND CREW INTERFACE ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: M LOCATION: 0 RATE: 80.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: - 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.20 KIPC
REPETITION RATE:	1.00/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.4PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: RFP,CRSS

METHODOLOGY: SUBSYSTEM, SAFETY, AND CREW INTERFACE ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 200.00 msec

COMMAND/CONTROL: LEVEL: M LOCATION: 0 RATE: 80.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: - 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.20 KIPC
REPETITION RATE:	1.00/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.1 NAME: RECREATION SERVICES

DATA SOURCES: RFP

METHODOLOGY: CREW CHOICE ANALYSIS,
CREW SCHEDULE ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: M LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 10.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.20 KIPC
REPETITION RATE:	10.00/DA	10.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	100.00 KBYTES	200.00 KBYTES
# OF DISPLAYS:	5	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.2 NAME: CREW/GROUND COMMUNICATION

DATA SOURCES: RFP

METHODOLOGY: CREW TASK ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: M LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 10.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.20 KIPC
REPETITION RATE:	6.00/DA	6.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	0.40 KBYTES	1.00 KBYTES
DATA REQUIREMENT:	0.40 KBYTES	0.80 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	5	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.3 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: F 5.1.3.2

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.05 KIPC	0.05 KIPC
REPETITION RATE:	10.00/HR	20.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	0.20 KBYTES	0.40 KBYTES
DATA REQUIREMENT:	0.10 KBYTES	0.20 KBYTES
DATA STORAGE: SECONDARY:	1.00 KBYTES	2.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.1 NAME: EMU CONTAMINATION CONTROL

DATA SOURCES: RFP

METHODOLOGY: RFP REQUIREMENTS; SSDS INTERFACES BY COMMON SENSE

RESPONSE TIME: I/O DELAY ALLOWABLE: 20000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH: O O

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: N

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 5 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	10.00/DA	20.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	1.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	0.50 KBYTES
DATA STORAGE: SECONDARY:	2.00 KBYTES	2.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	10.00 KBYTES	10.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.10NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: F 5.1.2.3

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.50 KIPC
REPETITION RATE:	6.00/HR	6.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	7.00 KBYTES
DATA STORAGE: SECONDARY:	25.00 KBYTES	25.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.2 NAME: EMU MONITOR AND MAINTENANCE

DATA SOURCES: RFP

METHODOLOGY: RFP REQUIREMENTS

RESPONSE TIME: I/O DELAY ALLOWABLE: 60000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH: O O

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: N

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 6 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.10 KIPC
REPETITION RATE:	1.40/DA	2.90/DA
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	60.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.3 NAME: MMU MONITOR AND MAINTENANCE

DATA SOURCES:

METHODOLOGY: RFP REQUIREMENTS

RESPONSE TIME: I/O DELAY ALLOWABLE: 60000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH: 0 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 6 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.10 KIPC
REPETITION RATE:	1.40/DA	2.90/DA
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	30.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.4 NAME: SAFETY INTERLOCK MONITOR & CONTROL

DATA SOURCES: RFP

METHODOLOGY: RFP REQUIREMENTS; SSDS INTERFACES BY COMMON SENSE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 10.00 E -6

SYNCHRONIZATION WITH: 0 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 86400.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	1.00/HR	2.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	1.00 KBYTES
DATA STORAGE: SECONDARY:	0.50 KBYTES	0.50 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.5 NAME: EVA REAL TIME MONITOR & CONTROL

DATA SOURCES: RFP

METHODOLOGY: RFP REQUIREMENTS; SSDS INTERFACES BY COMMON SENSE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH: 4.3.4.2 4.3.4.3

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 5 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.01 KIPC	0.01 KIPC
REPETITION RATE:	1.00/MN	1.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES	4.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	1.00 KBYTES	1.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.6 NAME: EVA VISUAL INFORMATION

DATA SOURCES: RFP

METHODOLOGY: RFP REQUIREMENTS; PROCEDURES FROM FUNCTION 4.3.5

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 100.00 E -6

SYNCHRONIZATION WITH: O O

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 86400.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	75.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	60.00 KBYTES	60.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.7 NAME: AIRLOCK ATM. PRESS. & COMP. CO

DATA SOURCES: RFP

METHODOLOGY: RFP REQUIREMENTS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH: 0 0

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: N

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 5 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.01 KIPC	0.01 KIPC
REPETITION RATE:	3.00/MN	3.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	2.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	0.50 KBYTES
DATA STORAGE: SECONDARY:	0.50 KBYTES	0.50 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.8 NAME: AIRLOCK TEMP & HUM. CONTROL

DATA SOURCES: RFP

METHODOLOGY: RFP REQUIREMENTS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1000.00 E -6

SYNCHRONIZATION WITH: O O

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: N

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 29000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.01 KIPC	0.01 KIPC
REPETITION RATE:	3.00/MN	3.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	1.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	0.50 KBYTES
DATA STORAGE: SECONDARY:	0.50 KBYTES	0.50 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.9 NAME: DEVICE MANAGEMENT

DATA SOURCES: 4.2.2.2

METHODOLOGY: SIMILARITY ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 30.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	50.00 KIPC	75.00 KIPC
REPETITION RATE:	30.00/MN	30.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	2.00 KBYTES	2.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	2.00 KBYTES	2.00 KBYTES
# OF DISPLAYS:	5	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.1 NAME: MAINTENANCE AND REPAIR PROCEDURES

DATA SOURCES: RFP

METHODOLOGY: SUBSYSTEM, CREW TASK, AND OPERATIONAL ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 800.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 2880.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.40 KIPC
REPETITION RATE:	1.00/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	500	750

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.2 NAME: OPERATIONS PROCEDURES

DATA SOURCES: RFP, CRSS

METHODOLOGY: CREW TASK & INTERFACE ANALYSIS

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 400.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH: -

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 2 INTERVAL: 288.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.40 KIPC
REPETITION RATE:	5.00/HR	5.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	2000.00 KBYTES	4000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1000	1500

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.3 NAME: GENERAL DATA PROCESSING SUPPORT

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	5.00 KIPC
REPETITION RATE:	5.00/DA	10.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	128.00 KBYTES	128.00 KBYTES
DATA REQUIREMENT:	128.00 KBYTES	128.00 KBYTES
DATA STORAGE: SECONDARY:	10000.00 KBYTES	10000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.4 NAME: GENERAL PURPOSE PROGRAMMING LANGUAGE

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: T

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	50.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	128.00 KBYTES	128.00 KBYTES
DATA REQUIREMENT:	128.00 KBYTES	128.00 KBYTES
DATA STORAGE: SECONDARY:	5000.00 KBYTES	5000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.5 NAME: UPDATE SYSTEM SOFTWARE

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: PHYSICAL LOCATION CODE:

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.00 KIPC	6.00 KIPC
REPETITION RATE:	1.00/MIN	1.00/MIN
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	50.00 KBYTES	100.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.1 NAME: GROUND TRACK DETERMINATION

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	1.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	3.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	4.00 KBYTES	8.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.1PNAME: GROUND TRACK DETERMINATION

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	1.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	3.00 KBYTES	6.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	4.00 KBYTES	8.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.2 NAME: MAGNETIC FIELD DETERMINATION

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.30 KIPC	0.30 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.50 KBYTES	1.50 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	0.50 KBYTES
DATA STORAGE: SECONDARY:	2.00 KBYTES	2.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.2PNAME: MAGNETIC FIELD DETERMINATION

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.30 KIPC	0.30 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.50 KBYTES	1.50 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	0.50 KBYTES
DATA STORAGE: SECONDARY:	2.00 KBYTES	2.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.3 NAME: PALLET COARSE POINTING

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: USED SHUTTLE SM ANTENNA MGMT. AND GNC UNIVERSAL POINTING PRINCIPAL FUNCTION 4.213

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: X

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 3600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	24.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.3PNAME: PALLET COARSE POINTING

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: USED SHUTTLE SM ANTENNA MGMT. AND GNC UNIVERSAL POINTING PRINCIPAL FUNCTION 4.213

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: X

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 3600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	10.00/S	10.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	24.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.4 NAME: RELATIVE ALIGNMENT DETERMINATION

DATA SOURCES: SHUTTLE ONBOARD SOFTWARE SIZING AND LOADING DATA BASE

METHODOLOGY: SHUTTLE ATTITUDE PROCESSING AND SKYLAB GROUND PROCESSING OF ALIGNMENT DATA.

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 4 INTERVAL: 3600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	2.00 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	13.00 KBYTES	13.00 KBYTES
DATA REQUIREMENT:	9.00 KBYTES	9.00 KBYTES
DATA STORAGE: SECONDARY:	22.00 KBYTES	22.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.4PNAME: RELATIVE ALIGNMENT DETERMINATION

DATA SOURCES: SHUTTLE ONBOARD SOFTWARE SIZING AND LOADING DATA BASE

METHODOLOGY: SHUTTLE ATTITUDE PROCESSING AND SKYLAB GROUND PROCESSING OF ALIGNMENT DATA.

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 4 INTERVAL: 3600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	6.00 KBYTES
DATA STORAGE: SECONDARY:	5.00 KBYTES	7.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.2 NAME: ENVIRONMENT MONITOR

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: BASED ON SHUTTLE SYSTEM MONITOR DATA ACQUISITIONED AND PARAMETER MONITORING AND REPORTING.

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	8.00 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	12.00 KBYTES	24.00 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	16.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.2P NAME: ENVIRONMENT MONITOR

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: BASED ON SHUTTLE SYSTEM MONITOR DATA ACQUISITIONED AND PARAMETER MONITORING AND REPORTING.

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: D

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	8.00 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	12.00 KBYTES	24.00 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	16.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.3 NAME: TRACKING SERVICES

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING.

METHODOLOGY: EXAMINED SIMILAR CODE/DATA.

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.60 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	3.00 KBYTES	9.00 KBYTES
DATA REQUIREMENT:	1.00 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	4.00 KBYTES	12.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.1 NAME: MONITOR CORE SYSTEM'S STATUS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: COMBINATION OF SHUTTLE GUARDS, SYSTEMS MONITORING PROGRAMS, AND DATA AND ESTIMATES FOR ADDITION S.S. NEEDS.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	6.00 KBYTES	12.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.1P NAME: MONITOR CORE SYSTEM'S STATUS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: COMBINATION OF SHUTTLE GUARDS, SYSTEMS MONITORING PROGRAMS, AND DATA AND ESTIMATES FOR ADDITION PLATFORM NEEDS.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.60 KIPC	1.20 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	2.40 KBYTES	4.80 KBYTES
DATA REQUIREMENT:	1.20 KBYTES	2.40 KBYTES
DATA STORAGE: SECONDARY:	3.60 KBYTES	7.20 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.2 NAME: MONITOR CUSTOMER SYSTEMS STATUS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: ESTIMATED LIKE SYSTEMS MONITORING PLUS MUCH MORE AUTOMATION.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.80 KIPC	1.60 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	6.00 KBYTES	12.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.2P NAME: MONITOR CUSTOMER SYSTEMS STATUS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: ESTIMATED LIKE SYSTEMS MONITORING PLUS MUCH MORE AUTOMATION.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	1.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	2.40 KBYTES	4.80 KBYTES
DATA REQUIREMENT:	1.20 KBYTES	2.40 KBYTES
DATA STORAGE: SECONDARY:	3.60 KBYTES	7.20 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.3 NAME: MASS PROPERTIES CONFIGURATION UPDATE

DATA SOURCES: SHUTTLE ABOARD SIZING AND LOADING DATA BASE.

METHODOLOGY: MASS HANDLING ROUTINES IN SHUTTLE & ENGINEERING ESTIMATE FOR DOCKING AND UN-DOCKING NEEDS OF SPACE STATION.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	7.00 KBYTES	14.00 KBYTES
DATA REQUIREMENT:	3.00 KBYTES	3.00 KBYTES
DATA STORAGE: SECONDARY:	10.00 KBYTES	20.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.3P NAME: MASS PROPERTIES CONFIGURATION UPDATE

DATA SOURCES: SHUTTLE ABOARD SIZING AND LOADING DATA BASE.

METHODOLOGY: MASS HANDLING ROUTINES IN SHUTTLE & ENGINEERING ESTIMATE FOR DOCKING AND UN-DOCKING NEEDS OF SPACE STATION.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.20 KIPC
REPETITION RATE:	0.10/S	0.10/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.70 KBYTES	1.40 KBYTES
DATA REQUIREMENT:	0.30 KBYTES	0.60 KBYTES
DATA STORAGE: SECONDARY:	1.00 KBYTES	2.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.1 NAME: FAULT ANALYSIS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: SHUTTLE VERY LIMITED--CODE/DATA MODELS ONLY; SOME SYSTEMS SERVICE S/W AND SOME SYSTEMS MANAGEMENT.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	40.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	200.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	40.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	240.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.1PNAME: FAULT ANALYSIS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: SHUTTLE VERY LIMITED--CODE/DATA MODELS ONLY; SOME SYSTEMS SERVICE S/W AND SOME SYSTEMS MANAGEMENT.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.80 KIPC	28.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	140.00 KBYTES
DATA REQUIREMENT:	14.00 KBYTES	140.00 KBYTES
DATA STORAGE: SECONDARY:	28.00 KBYTES	280.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.2 NAME: FAULT CORRECTION

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: SOME EXAMPLES IN SYSTEM SERVICES; I/O CHAIN BYPASS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	40.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	200.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	40.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	240.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.2PNAME: FAULT CORRECTION

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: SOME EXAMPLES IN SYSTEM SERVICES; I/O CHAIN BYPASS

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.80 KIPC	5.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	140.00 KBYTES
DATA REQUIREMENT:	14.00 KBYTES	28.00 KBYTES
DATA STORAGE: SECONDARY:	28.00 KBYTES	150.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.3 NAME: TREND ANALYSIS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE

METHODOLOGY: ROUTINES FOR DISPLAYS; ENTRY, ASCENT

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	0.70 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	7.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	4.00 KBYTES
DATA STORAGE: SECONDARY:	7.00 KBYTES	9.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.3PNAME: TREND ANALYSIS

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE

METHODOLOGY: ROUTINES FOR DISPLAYS; ENTRY, ASCENT

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.35 KIPC	0.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	3.50 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	1.40 KBYTES	2.80 KBYTES
DATA STORAGE: SECONDARY:	5.00 KBYTES	10.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.5 NAME: SYSTEM TEST AND EVALUATION

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	4.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	15.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	35.00 KBYTES	35.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.5P NAME: SYSTEM TEST AND EVALUATION

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: 0 RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.40 KIPC	2.80 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	28.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	35.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.6 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: SHUTTLE SOP'S FOR GNC, SM, NU, ETC.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: S RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	6.00 KIPC	18.00 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	52.00 KBYTES	154.00 KBYTES
DATA REQUIREMENT:	17.00 KBYTES	59.00 KBYTES
DATA STORAGE: SECONDARY:	69.00 KBYTES	193.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	23	65

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.6P NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: SHUTTLE ONBOARD S/W SIZING AND LOADING DATA BASE.

METHODOLOGY: SHUTTLE SOP'S FOR GNC, SM, NU, ETC.

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: S RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.40 KIPC	7.20 KIPC
REPETITION RATE:	0.50/S	0.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	60.00 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	24.00 KBYTES
DATA STORAGE: SECONDARY:	28.00 KBYTES	84.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.1 NAME: UPDATE/ACCESS AND SYNCHRONIZATION

DATA SOURCES: SIZE BASED ON DBASE III(TM) FOR IBM PC. SPEED IS ENGR EST

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	200.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	250.00 KBYTES	500.00 KBYTES
DATA REQUIREMENT:	50.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	10000.00 KBYTES	20000.00 KBYTES
PERISHABILITY:	0.00% IN 12.00HRS	0.00% IN 12.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.1PNAME: UPDATE/ACCESS AND SYNCHRONIZATION

DATA SOURCES: SIZE BASED ON DBASE III(TM) FOR IBM PC. SPEED IS ENGR EST

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	200.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	250.00 KBYTES	500.00 KBYTES
DATA REQUIREMENT:	50.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	10000.00 KBYTES	20000.00 KBYTES
PERISHABILITY:	0.00% IN 12.00HRS	0.00% IN 12.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.2 NAME: DATA FILE MANAGEMENT

DATA SOURCES: SPACE SHUTTLE MASS MEMORY UTILITY

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 60000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	5.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	12.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	140.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.2PNAME: DATA FILE MANAGEMENT

DATA SOURCES: SPACE SHUTTLE MASS MEMORY UTILITY

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 60000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	5.00 KIPC
REPETITION RATE:	10.00/HR	10.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	12.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	140.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.3 NAME: MASS MEMORY RESOURCE MANAGEMENT

DATA SOURCES: ENGINEERING ESTIMATE

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	20.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.3PNAME: MASS MEMORY RESOURCE MANAGEMENT

DATA SOURCES: ENGINEERING ESTIMATE

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 30000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	20.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.4 NAME: ARCHIVAL STORAGE

DATA SOURCES: ENGINEERING ESTIMATE

METHODOLOGY: ASSUME DUMP TO ARCHIVE OF CORESTAT OF PAST 24 HRS, DONE ONCE PER DAY. ASSUME 100BYTES/SEC OF PERTINENT DATA ENTERED IN CORESTA

RESPONSE TIME: I/O DELAY ALLOWABLE: 60000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	20.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	20.00 KBYTES	40.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	47000000.00 KBYTES	78000000.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.5 NAME: DEVICE MANAGEMENT

DATA SOURCES: ENGINEERING ESTIMATE

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	1.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.5PNAME: DEVICE MANAGEMENT

DATA SOURCES: ENGINEERING ESTIMATE

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.50 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.70 KBYTES	1.50 KBYTES
DATA REQUIREMENT:	0.40 KBYTES	0.70 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.6 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: ENGINEERING ESTIMATE

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.20 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	1.00 KBYTES	2.00 KBYTES
DATA REQUIREMENT:	0.50 KBYTES	1.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.6PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES: ENGINEERING ESTIMATE

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.10 KIPC	0.20 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.70 KBYTES	1.50 KBYTES
DATA REQUIREMENT:	0.40 KBYTES	0.70 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.1 NAME: LOAD SCHEDULING

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 120000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	50.00 KBYTES	50.00 KBYTES
PERISHABILITY:	1.00% IN 24.00HRS	1.00% IN 24.00HRS
ARCHIVAL:	50.00 KBYTES	50.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.1PNAME: LOAD SCHEDULING

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 120000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	4.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	40.00 KBYTES
PERISHABILITY:	1.00% IN 24.00HRS	1.00% IN 24.00HRS
ARCHIVAL:	40.00 KBYTES	40.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.2 NAME: SYSTEM EXECUTIVE

DATA SOURCES: SPACE SHUTTLE (OPER SYS); SUBACS (NTWK OPER SYS)

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: N RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.30 KIPC
REPETITION RATE:	100.00/S	100.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	570.00 KBYTES	700.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	1300.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	260.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	120.00 KBYTES	160.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.2PNAME: SYSTEM EXECUTIVE

DATA SOURCES: SPACE SHUTTLE (OPER SYS); SUBACS (NTWK OPER SYS)

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: N RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.30 KIPC
REPETITION RATE:	100.00/S	100.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	570.00 KBYTES	700.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	1300.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	260.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	120.00 KBYTES	160.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.3 NAME: INITIALIZATION CONFIGURATION CONTROL

DATA SOURCES: EST AT 5 TIMES SPACE SHUTTLE INITIALIZATION S/W

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 120000.00 msec

COMMAND/CONTROL: LEVEL: M,I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	200.00 KIPC
REPETITION RATE:	1.00/	1.00/
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	18.00 KBYTES	30.00 KBYTES
DATA STORAGE: SECONDARY:	50.00 KBYTES	100.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	4	6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.3PNAME: INITIALIZATION CONFIGURATION CONTROL

DATA SOURCES: EST AT 5 TIMES SPACE SHUTTLE INITIALIZATION S/W

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 120000.00 msec

COMMAND/CONTROL: LEVEL: M,I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	200.00 KIPC
REPETITION RATE:	1.00/	1.00/
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	18.00 KBYTES	30.00 KBYTES
DATA STORAGE: SECONDARY:	50.00 KBYTES	100.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.4 NAME: CONFIGURE DATA PROCESSING EQUIPMENT

DATA SOURCES: EST AT 5 TIMES SPACE SHUTTLE SYST CTRL S/W

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: N LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	50.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	125.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	400.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	4	6

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.4PNAME: CONFIGURE DATA PROCESSING EQUIPMENT

DATA SOURCES: EST AT 5 TIMES SPACE SHUTTLE SYST CTRL S/W

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: N LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	25.00 KBYTES	50.00 KBYTES
DATA REQUIREMENT:	65.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	100.00 KBYTES	200.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.5 NAME: FACILITY STATUS

DATA SOURCES: EST AT 5 TIMES SPACE SHUTTLE GPC/TERMINAL UNIT C/O

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	20.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	22.00 KBYTES	40.00 KBYTES
DATA REQUIREMENT:	60.00 KBYTES	80.00 KBYTES
DATA STORAGE: SECONDARY:	100.00 KBYTES	150.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.5PNAME: FACILITY STATUS

DATA SOURCES: EST AT 5 TIMES SPACE SHUTTLE GPC/TERMINAL UNIT C/O

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	20.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	22.00 KBYTES	40.00 KBYTES
DATA REQUIREMENT:	60.00 KBYTES	80.00 KBYTES
DATA STORAGE: SECONDARY:	100.00 KBYTES	150.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.6 NAME: RECONFIGURE/DISCONNECT PAYLOADS & CORE SYSTEMS

DATA SOURCES: EST AT 3 TIMES SHUTTLE SM(BASIS); 10 TIMES DATA

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	30.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	80.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	175.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	800.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	6	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.6PNAME: RECONFIGURE/DISCONNECT PAYLOADS & CORE SYSTEMS

DATA SOURCES: EST AT 3 TIMES SHUTTLE SM(BASIS); 10 TIMES DATA

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	30.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	65.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	140.00 KBYTES	160.00 KBYTES
DATA STORAGE: SECONDARY:	640.00 KBYTES	800.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.7 NAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	10.00/MN	10.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	30.00 KBYTES
DATA STORAGE: SECONDARY:	40.00 KBYTES	60.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.7PNAME: DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 2000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	10.00/MN	10.00/MN
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	30.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.8 NAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	1.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	25.00 KBYTES
DATA REQUIREMENT:	5.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	25.00 KBYTES	40.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.8PNAME: COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.50 KIPC	1.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	12.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	4.00 KBYTES	8.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	16.00 KBYTES
PERISHABILITY:	0.00% IN 24.00HRS	0.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.3.1 NAME: DISPLAY AND CONTROL DEVICE MANAGEMENT

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O,I RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.20 KIPC	0.30 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.40 KBYTES	0.50 KBYTES
DATA REQUIREMENT:	0.20 KBYTES	0.30 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.3.2 NAME: DISPLAY AND CONTROL COMMAND INTERFACE PROCESSING

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G,O RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: H

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.05 KIPC	0.10 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	0.20 KBYTES	0.40 KBYTES
DATA REQUIREMENT:	0.10 KBYTES	0.20 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.1 NAME: INTERFACE MANAGEMENT

DATA SOURCES: Experience

METHODOLOGY: Engineering analysis based on typical control center operation.

RESPONSE TIME: I/O DELAY ALLOWABLE: 5000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 100.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	5.00 KIPC	7.00 KIPC
REPETITION RATE:	1.00/SEC	1.00/SEC
PROCESSOR MEMORY: PROGRAM SIZE:	15.00 KBYTES	20.00 KBYTES
DATA REQUIREMENT:	30.00 KBYTES	35.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	8	10

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.2 NAME: SCHEDULE/STATUS COMPARE

DATA SOURCES: EXPERIENCE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON TYPICAL CONTROL CENTER OPERATION.

RESPONSE TIME: I/O DELAY ALLOWABLE: 5000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 100.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	25.00 KIPC
REPETITION RATE:	1.00/SEC	1.00/SEC
PROCESSOR MEMORY: PROGRAM SIZE:	60.00 KBYTES	70.00 KBYTES
DATA REQUIREMENT:	120.00 KBYTES	200.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	20	25

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.3 NAME: TRANSMIT RECONFIGURATION SCHEDULE

DATA SOURCES: EXPERIENCE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON TYPICAL CONTROL CENTER OPERATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 100.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	50.00 KIPC	60.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	150.00 KBYTES	180.00 KBYTES
DATA REQUIREMENT:	600.00 KBYTES	900.00 KBYTES
DATA STORAGE: SECONDARY:	5000.00 KBYTES	7500.00 KBYTES
PERISHABILITY:	0.00% IN 1.00HRS	0.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	40	60

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.4 NAME: GROUND STATUS DATABASE MANAGEMENT

DATA SOURCES: EXPERIENCE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON TYPICAL CONTROL CENTER OPERATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 100.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	12.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	30.00 KBYTES	35.00 KBYTES
DATA REQUIREMENT:	60.00 KBYTES	70.00 KBYTES
DATA STORAGE: SECONDARY:	200.00 KBYTES	250.00 KBYTES
PERISHABILITY:	0.00% IN 1.00HRS	0.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	40	45

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.5 NAME: ADJUST FOR UNSCHEDULED MODE CHANGES

DATA SOURCES: EXPERIENCE

METHODOLOGY: ENGINEERING ANALYSIS BASED ON TYPICAL CONTROL CENTER OPERATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 100.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 100.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 1 INTERVAL: 5.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	25.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	60.00 KBYTES	75.00 KBYTES
DATA REQUIREMENT:	120.00 KBYTES	150.00 KBYTES
DATA STORAGE: SECONDARY:	5000.00 KBYTES	7500.00 KBYTES
PERISHABILITY:	0.00% IN 1.00HRS	0.00% IN 1.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	50	75

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.1 NAME: INTERPRET MODEL REQUESTS

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	8.00 KIPC	16.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	32.00 KBYTES	64.00 KBYTES
DATA REQUIREMENT:	24.00 KBYTES	48.00 KBYTES
DATA STORAGE: SECONDARY:	128.00 KBYTES	256.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.2 NAME: DEVELOP COMMUNICATIONS MODEL CONFIGURATION

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 3600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	30.00 KIPC	50.00 KIPC
REPETITION RATE:	1.00/DAY	1.00/DAY
PROCESSOR MEMORY: PROGRAM SIZE:	256.00 KBYTES	1000.00 KBYTES
DATA REQUIREMENT:	128.00 KBYTES	512.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.3 NAME: SIMULATE SPACE STATION SYSTEM COMM ELEMENTS

DATA SOURCES: SPACELAB INTEGRATION

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	64.00 KIPC	192.00 KIPC
REPETITION RATE:	1.00/DAY	2.00/DAY
PROCESSOR MEMORY: PROGRAM SIZE:	512.00 KBYTES	1000.00 KBYTES
DATA REQUIREMENT:	256.00 KBYTES	512.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.4 NAME: DEVELOP HARDWARE INTEGRATION CONFIGURATION

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 3600.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	2.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	256.00 KBYTES	512.00 KBYTES
DATA REQUIREMENT:	128.00 KBYTES	256.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.5 NAME: SIMULATE SPACE STATION ELEMENTS

DATA SOURCES: SPACELAB INTEGRATION

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	4.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	256.00 KBYTES	512.00 KBYTES
DATA REQUIREMENT:	128.00 KBYTES	256.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	2000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.6 NAME: DEVELOP SOFTWARE INTEGRATION CONFIGURATION

DATA SOURCES: SPACELAB INTEGRATION

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	20.00 KIPC	40.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	128.00 KBYTES	256.00 KBYTES
DATA REQUIREMENT:	64.00 KBYTES	128.00 KBYTES
DATA STORAGE: SECONDARY:	1000.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.7 NAME: SIMULATE SPACE STATION PROCESSORS

DATA SOURCES: SPACELAB INTEGRATION

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.10

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 60.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	4.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	256.00 KBYTES	512.00 KBYTES
DATA REQUIREMENT:	128.00 KBYTES	256.00 KBYTES
DATA STORAGE: SECONDARY:	512.00 KBYTES	1000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.1 NAME: DEFINE TRAINING PLAN

DATA SOURCES:

METHODOLOGY: BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.00 KIPC	4.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	6.00 KBYTES	8.00 KBYTES
DATA REQUIREMENT:	12.00 KBYTES	16.00 KBYTES
DATA STORAGE: SECONDARY:	6.00 KBYTES	8.00 KBYTES
PERISHABILITY:	100.00% IN 24.00HRS	100.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.2 NAME: DEFINE TRAINING SCRIPT

DATA SOURCES:

METHODOLOGY: BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.50

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.00 KIPC	5.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	14.00 KBYTES	18.00 KBYTES
DATA REQUIREMENT:	20.00 KBYTES	30.00 KBYTES
DATA STORAGE: SECONDARY:	14.00 KBYTES	30.00 KBYTES
PERISHABILITY:	100.00% IN 24.00HRS	100.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	4

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.3 NAME: DEFINE MODEL REQUIREMENTS

DATA SOURCES:

METHODOLOGY: BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.50

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	12.00 KBYTES	18.00 KBYTES
DATA REQUIREMENT:	16.00 KBYTES	20.00 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	18.00 KBYTES
PERISHABILITY:	100.00% IN 24.00HRS	100.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.4 NAME: CONFIGURE SIMULATION

DATA SOURCES:

METHODOLOGY: BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: O,G RATE: 0.50

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 4 INTERVAL: 0.50 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	4.00/DA	4.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	16.00 KBYTES	18.00 KBYTES
DATA REQUIREMENT:	36.00 KBYTES	40.00 KBYTES
DATA STORAGE: SECONDARY:	32.00 KBYTES	38.00 KBYTES
PERISHABILITY:	100.00% IN 12.00HRS	100.00% IN 12.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	4	5

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.5 NAME: CONDUCT TRAINING EXERCISE

DATA SOURCES:

METHODOLOGY: BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 80.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: O,G RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 26 INTERVAL: 0.08 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	4.00 KIPC	6.00 KIPC
REPETITION RATE:	2.00/S	2.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	64.00 KBYTES	80.00 KBYTES
DATA REQUIREMENT:	64.00 KBYTES	80.00 KBYTES
DATA STORAGE: SECONDARY:	20.00 KBYTES	30.00 KBYTES
PERISHABILITY:	100.00% IN 4.00HRS	100.00% IN 4.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.6 NAME: EVALUATE OPERATOR PERFORMANCE

DATA SOURCES:

METHODOLOGY: BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 80.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.50

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 3 INTERVAL: 1.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	3.00 KIPC	5.00 KIPC
REPETITION RATE:	12.50/S	12.50/S
PROCESSOR MEMORY: PROGRAM SIZE:	12.00 KBYTES	16.00 KBYTES
DATA REQUIREMENT:	12.00 KBYTES	16.00 KBYTES
DATA STORAGE: SECONDARY:	12.00 KBYTES	16.00 KBYTES
PERISHABILITY:	100.00% IN 24.00HRS	100.00% IN 24.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.7 NAME: MAINTAIN OPERATOR TRAINING STATUS

DATA SOURCES:

METHODOLOGY: BACKGROUND EXPERIENCE

RESPONSE TIME: I/O DELAY ALLOWABLE: 1000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.05

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	2.00 KIPC	3.00 KIPC
REPETITION RATE:	1.00/S	1.00/S
PROCESSOR MEMORY: PROGRAM SIZE:	6.00 KBYTES	9.00 KBYTES
DATA REQUIREMENT:	8.00 KBYTES	10.00 KBYTES
DATA STORAGE: SECONDARY:	8.00 KBYTES	10.00 KBYTES
PERISHABILITY:	100.00% IN 24.00HRS	100.00% IN 24.00HRS
ARCHIVAL:	128.00 KBYTES	180.00 KBYTES
# OF DISPLAYS:	1	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.1 NAME: CONFIGURATION CONTROL & MANAGEMENT SUPPORT

DATA SOURCES: NASA PROJECTS/CONTRACTOR DOCUMENTS/PROCEDURES/SIZING

METHODOLOGY: NASA S/W CONF. CONTROL PAST POLICIES; PLUS SHUTTLE EXPERIENCE SIZING

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: I,M LOCATION: U,G RATE: 1.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: M PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	0.00 KIPC
REPETITION RATE:	0.00/	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	1200.00 KBYTES	1200.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	50000000.00 KBYTES	75000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	50000000.00 KBYTES	75000000.00 KBYTES
# OF DISPLAYS:	25	25

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.2 NAME: REQUIREMENTS ANALYSIS & GENERATION TOOLS

DATA SOURCES: NASA PROJECTS/CONTRACTOR DOCUMENTS/PROCEDURES/SIZING

METHODOLOGY: NEED BETTER REQUIREMENTS ACCESS AND TOOLS, SHUTTLE EXPERIENCE USED FOR SIZING

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: I,M LOCATION: U RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00	KIPC	0.00	KIPC
REPETITION RATE:	0.00	/DA	0.00	/
PROCESSOR MEMORY: PROGRAM SIZE:	600.00	KBYTES	0.00	KBYTES
DATA REQUIREMENT:	0.00	KBYTES	0.00	KBYTES
DATA STORAGE: SECONDARY:	100000000.00	KBYTES	200000000.00	KBYTES
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	200000000.00	KBYTES	400000000.00	KBYTES
# OF DISPLAYS:	5		0	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.3 NAME: DESIGN & CODE GENERATION

DATA SOURCES: NASA PROJECTS/CONTRACTOR DOCUMENTS/PROCEDURES/SIZING

METHODOLOGY: NEED IMPROVED TOOLS & SUPPORT OF DISTRIBUTED USERS.

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: I,M LOCATION: U RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC		GROWTH	
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00	KIPC	0.00	KIPC
REPETITION RATE:	0.00	/DA	0.00	/
PROCESSOR MEMORY: PROGRAM SIZE:	4200.00	KBYTES	0.00	KBYTES
DATA REQUIREMENT:	0.00	KBYTES	0.00	KBYTES
DATA STORAGE: SECONDARY:	500000000.00	KBYTES	500000000.00	KBYTES
PERISHABILITY:	0.00% IN	0.00HRS	0.00% IN	0.00HRS
ARCHIVAL:	500000000.00	KBYTES	700000000.00	KBYTES
# OF DISPLAYS:	20		0	

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.4 NAME: SYSTEM BUILD & DELIVERY

DATA SOURCES: NASA PROJECTS/CONTRACTORS/PROCEDURES/SIZING

METHODOLOGY: NEED DISTRIBUTED ACCESS PROCESS

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: I,M LOCATION: U RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	0.00 KIPC
REPETITION RATE:	0.00/DA	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	6440.00 KBYTES	0.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	100000000.00 KBYTES	200000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	300000000.00 KBYTES	600000000.00 KBYTES
# OF DISPLAYS:	25	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.5 NAME: TESTING & ANALYSIS

DATA SOURCES: NASA PROJECTS/CONTRACTORS/PROCEDURES/SIZING

METHODOLOGY: NEED EFFICIENT PROCESS FOR MAINTAINING & INTEGRATING RECON. DATA

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: I,M LOCATION: U RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	0.00 KIPC
REPETITION RATE:	0.00/DA	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	5600.00 KBYTES	5600.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	100000000.00 KBYTES	100000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	100000000.00 KBYTES	100000000.00 KBYTES
# OF DISPLAYS:	40	40

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.6 NAME: DOCUMENTATION

DATA SOURCES: NASA PROJECTS/CONTRACTORS/PROCEDURES/SIZING

METHODOLOGY: MUST IMPROVE GENERATION, ACCESS & MAINTENANCE METHODS FOR ALL S/W DOCUMENTATION

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: I,M LOCATION: U RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	0.00 KIPC
REPETITION RATE:	0.00/DA	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	700.00 KBYTES	0.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	300000000.00 KBYTES	500000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	300000000.00 KBYTES	500000000.00 KBYTES
# OF DISPLAYS:	25	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.7 NAME: COMMUNICATIONS

DATA SOURCES: NASA PROJECTS/CONTRACTORS/PROCEDURES/SIZING

METHODOLOGY: NEED WORKABLE COMMUNICATION FUNCTION TO ACCESS S/W, DOCUMENTS, AND C/O DATA BETWEEN SITES.

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: I,M LOCATION: U RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: N PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	0.00 KIPC
REPETITION RATE:	0.00/DA	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	700.00 KBYTES	0.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	25000000.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	25000000.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	20	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.8 NAME: RECONFIGURATION DATA MANAGEMENT

DATA SOURCES: NASA PROJECTS/CONTRACTORS/PROCEDURES/SIZING

METHODOLOGY: NEED EFFICIENT PROCESS FOR MAINTAINING AND INTEGRATING RECON DATA.

RESPONSE TIME: I/O DELAY ALLOWABLE: 500.00 msec

COMMAND/CONTROL: LEVEL: I,M LOCATION: U RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 0.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: U PHYSICAL LOCATION CODE: M

DIAGNOSTICS/SELF TEST: REQUIRED: NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	0.00 KIPC	0.00 KIPC
REPETITION RATE:	0.00/	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	5600.00 KBYTES	0.00 KBYTES
DATA REQUIREMENT:	0.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	500000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	100000000.00 KBYTES	500000000.00 KBYTES
# OF DISPLAYS:	50	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.1 NAME: ANALYZE SYSTEM PERFORMANCE

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1000.00 KIPC	1000.00 KIPC
REPETITION RATE:	8.00/DA	8.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	1000.00 KBYTES	1000.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	1000.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.2 NAME: DETERMINE EFFECTS ON INTEGRATED PLAN

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	100.00 KIPC
REPETITION RATE:	4.00/HR	4.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	100000.00 KBYTES	100000.00 KBYTES
DATA REQUIREMENT:	100000.00 KBYTES	100000.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	8	8

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.3 NAME: ANALYZE AFFECTED PLANS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	100.00 KIPC
REPETITION RATE:	4.00/HR	4.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	100000.00 KBYTES	100000.00 KBYTES
DATA REQUIREMENT:	100000.00 KBYTES	100000.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	8	8

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.4 NAME: ANALYZE IMPACT OF PROGRAM CHANGES

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G RATE: 0.00

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1000.00 KIPC	1000.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	1000.00 KBYTES	1000.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	1000.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	1	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.2 NAME: LOG CUSTOMER USAGE OF SYSTEM

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 10000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: R

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	45.00/DA	75.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	10.00 KBYTES	15.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.1 NAME: ANALYZE SYSTEM OPERATION

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: S PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1000.00 KIPC	1000.00 KIPC
REPETITION RATE:	0.10/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	1000.00 KBYTES	1000.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	1000.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	2	2

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.2 NAME: UPDATE TECHNICAL DOCUMENTS

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 0.00 msec

COMMAND/CONTROL: LEVEL: I LOCATION: N RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	0.10/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	5000000.00 KBYTES	5000000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.3 NAME: ANALYZE PROGRAM CHANGES

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	0.00 KIPC
REPETITION RATE:	0.10/DA	0.00/
PROCESSOR MEMORY: PROGRAM SIZE:	1000.00 KBYTES	0.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	0.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	1

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.4 NAME: TRANSMIT PROCEDURES

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: O RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	10.00 KIPC	10.00 KIPC
REPETITION RATE:	1.00/DA	2.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	10.00 KBYTES	10.00 KBYTES
DATA REQUIREMENT:	100.00 KBYTES	100.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.1 NAME: MONITOR CUSTOMER INVENTORIES

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	100.00 KIPC
REPETITION RATE:	30.00/DA	30.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	100.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	10000.00 KBYTES	10000.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.2 NAME: MONITOR STATION INVENTORIES

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A,I LOCATION: N RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	100.00 KIPC
REPETITION RATE:	1.00/HR	1.00/HR
PROCESSOR MEMORY: PROGRAM SIZE:	100.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	2000.00 KBYTES
DATA STORAGE: SECONDARY:	700000.00 KBYTES	700000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.3 NAME: MONITOR GROUND FACILITY INVETORIES.

DATA SOURCES:

METHODOLOGY:

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: I PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: N NUMBER: 0 INTERVAL: 0.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	100.00 KIPC	100.00 KIPC
REPETITION RATE:	1.00/DA	1.00/DA
PROCESSOR MEMORY: PROGRAM SIZE:	100.00 KBYTES	100.00 KBYTES
DATA REQUIREMENT:	1000.00 KBYTES	2000.00 KBYTES
DATA STORAGE: SECONDARY:	600000.00 KBYTES	600000.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	3	3

20-JUL-1985 SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.5 NAME: CONFIGURATION MANAGEMENT

DATA SOURCES:

METHODOLOGY: ENGINEERING ESTIMATE

RESPONSE TIME: I/O DELAY ALLOWABLE: 100000.00 msec

COMMAND/CONTROL: LEVEL: A LOCATION: G RATE: 0.01

DATA QUALITY: MAXIMUM BIT ERROR RATE: 1.00 E -6

SYNCHRONIZATION WITH:

SYSTEM DEPENDENCY CODE: G PHYSICAL LOCATION CODE: G

DIAGNOSTICS/SELF TEST: REQUIRED: Y NUMBER: 0 INTERVAL: 10000.00 SEC

REQUIREMENTS:	IOC	GROWTH
DATA PROCESSING INSTRUCTIONS PER CYCLE:	1.00 KIPC	1.00 KIPC
REPETITION RATE:	0.10/DA	0.10/DA
PROCESSOR MEMORY: PROGRAM SIZE:	5.00 KBYTES	5.00 KBYTES
DATA REQUIREMENT:	2.00 KBYTES	2.00 KBYTES
DATA STORAGE: SECONDARY:	0.00 KBYTES	0.00 KBYTES
PERISHABILITY:	0.00% IN 0.00HRS	0.00% IN 0.00HRS
ARCHIVAL:	0.00 KBYTES	0.00 KBYTES
# OF DISPLAYS:	0	0

APPENDIX H

FUNCTION ALLOCATION MATRIX

C-7

APPENDIX H

FUNCTION ALLOCATION MATRIX

The hierarchial functions list developed in task 1 has been reviewed and allocated to subsystems and location based on task 3 trade studies and task 4 analysis. This appendix contains the results of that allocation.

The matrix is divided into four sets of tables. The first set documents the assignments to the space and ground systems. The first two columns show IOC allocation and the second two columns show the growth allocation. The next set of four columns show the allocation to the spacecraft systems. STAT is the Space Station and its associated ground facilities. Similarly, COP and POP allocations include their ground facilities. Common refers to facilities whose function is common to the three systems, such as the Data Handling Center.

The second set of tables shows the allocation to ground facilities. The identifiers are all standard, and will not be repeated. The third set of tables shows the allocation to onboard subsystems defined in the reference configuration. The facility set shows the allocation to Space Station modules. LOG is the logistics module, and the rest of the locations are self explanatory.

No specific allocation of platform functions to platform physical locations has been attempted. These decisions were left to the discretion of the platform designers.

Table H-1. Function Allocation to Systems

26-NOV-1985

FUNCTION NUMBER	FUNCTION NAME	IOC LOCATION ORBIT	IOC LOCATION GROUND	GROWTH LOCATION ORBIT	GROWTH LOCATION GROUND	VEHICLE/SYSTEM ASSIGNMENT STATION	COP	POP	COMMON
1.0	Manage Customer/Operator Delivered Data								
1.1	Manage Real Time Data Return	X		X		X	X	X	
1.1.1	Acquire Realtime Data	X		X		X	X	X	
1.1.2	Prioritize Realtime Data	X		X		X	X	X	
1.1.3	Monitor Realtime Data	X		X		X	X	X	
1.1.4	Dispatch Realtime Data	X		X		X	X	X	
1.1.5	Format Realtime Data	X		X		X	X	X	
1.2	Manage Delayable Data Return	X		X		X	X	X	
1.2.1	Acquire Delayed Payload Data	X		X		X	X	X	
1.2.2	Prioritize Delayed Data	X		X		X	X	X	
1.2.3	Monitor Delayed Data	X		X		X	X	X	
1.2.4	Dispatch Delayed Data	X		X		X	X	X	
1.2.5	Format Delayed Data	X		X		X	X	X	
1.3	Data Distribution		X		X				X
1.3.1	Preprocessing		X		X				X
1.3.2	Data Capture		X		X				X
1.3.3	Routing and Transmission		X		X				X
1.3.4	Quality Verification		X		X				X
1.4	Manage Deliverable Customer Data		X		X				X
1.4.1	Customer-Data Interface Mgt		X		X				X
1.4.2	Customer Data Capture		X		X				X
1.4.3	Customer Data Handling		X		X				X
1.4.4	Ancillary Data Acquisition		X		X				X
1.4.5	Level 0 Customer Data Processing		X		X				X
1.4.6	Customer Data Accounting		X		X				X
1.4.7	Routing and Transmission		X		X				X
1.5	Manage Deliverable Core Data		X		X	X	X	X	
1.5.1	Core Data Interface Management		X		X	X	X	X	
1.5.2	Core Data Capture		X		X	X	X	X	
1.5.3	Data Extraction		X		X	X	X	X	
1.5.4	Displays and Controls		X		X	X	X	X	
1.5.5	Engineering Data Analysis		X		X	X	X	X	
1.5.6	Core Data Accounting		X		X				
2.0	Manage Customer/Operator Supplied Data	X	X	X	X	X	X	X	X
2.1	Validate Payload Commands Data	X	X	X	X	X	X	X	X
2.2	Check SSDS Service Requirements	X	X	X	X	X	X	X	X
2.3	Validate Core Commands/Data	X	X	X	X	X	X	X	X
2.3.1	Authorize Operator	X	X	X	X	X	X	X	X
2.3.2	Authorize Operation	X		X		X	X	X	
2.4	Provide Ancillary Data	X		X		X	X	X	
2.5	Support Customer System Operation	X		X		X	X	X	
2.5.1	Customer Data Processing	X		X		X	X	X	
2.5.2	Customer Payload Operations	X		X		X			
2.5.3	Support OTV Operations	X		X		X			
2.5.3.1	OTV Servicing	X		X		X			
2.5.3.2	OTV Checkout & Diagnostics			X	X	X			
2.5.3.3	OTV Deployment/Retrieval	X		X		X			
2.5.3.4	OTV Operation	X		X		X			
2.5.3.5	OTV Status	X		X		X			
2.5.4	Support OMV Operations	X		X		X			
2.5.4.1	OMV Service	X		X		X			
2.5.4.2	OMV Checkout & Diagnostics	X		X		X			
2.5.4.3	OMV Deployment/Retrieval	X		X		X			

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Table H-1. Function Allocation to Systems (Continued)

FUNCTION NUMBER	FUNCTION NAME	IOC LOCATION ORBIT	IOC LOCATION GROUND	GROWTH LOCATION ORBIT	GROWTH LOCATION GROUND	VEHICLE/SYSTEM ASSIGNMENT STATION	COF	POF	COMMON
2.5.4.4	Remote Operations Control	X	X	X	X	X			
2.5.4.5	OMV Operation	X	X	X	X	X			
2.5.4.6	OMV Status	X		X		X			
2.5.5	Customer Payload Checkout/Service	X		X		X			
2.6	SSPE Checkout and Servicing	X		X		X			
3.0	Schedule and Execute Operations								
3.1	Develop Recurring Operations Masters		X		X	X	X	X	
3.1.1	Develop Normal Day Payload Operations		X		X	X	X	X	
3.1.2	Develop Normal Day Core System Operations		X		X	X	X	X	
3.1.3	Develop Mode Compatibility Matrix		X		X	X	X	X	
3.1.4	Develop Major Event Operations		X		X	X	X	X	X
3.2	Develop Short Term Schedules		X		X	X	X	X	
3.2.1	Confirm Payload and Core Schedules		X		X	X	X	X	X
3.2.2	Incorporate New/Revised Operations		X		X	X	X	X	
3.2.3	Check for Conflicts		X		X	X	X	X	
3.2.4	Check for Facilities Capabilities		X		X	X	X	X	
3.2.5	Resolve Conflicts		X		X	X	X	X	
3.2.6	Maintain Short Term Schedules		X		X	X	X	X	
3.3	Develop Operating Events Schedule	X		X		X	X	X	
3.3.1	Time Tag Operations	X		X		X	X	X	
3.3.2	Check Schedule Conflicts	X	X	X	X	X	X	X	X
3.3.3	Maintain Operating Events Schedule	X		X		X	X	X	
3.3.4	Adjust for Unscheduled Mode Changes	X	X	X	X	X	X	X	
3.4	Sequence Operations	X		X		X	X	X	
3.4.1	Sequence Payload Operations	X		X		X	X	X	
3.4.2	Sequence Core System Operations	X		X		X	X	X	
3.4.3	Command Schedules Mode Changes	X		X		X	X	X	
3.4.4	Check For Executability	X		X		X	X	X	
4.0	Operate Core Systems								
4.1	Operate GN&C System	X		X		X	X	X	
4.1.1	Navigation	X		X		X	X	X	
4.1.1.1	Spacecraft State/Orbit Determ.	X	X	X	X	X			
4.1.1.2	Constellation State/Orbit Determin.	X		X		X			
4.1.1.3	Determine Ephemerides (Sun, Moon, etc.)	X		X		X	X	X	
4.1.1.4	Attitude Determination	X		X		X	X	X	
4.1.1.5	Navigation State Propagation	X		X		X	X	X	
4.1.1.6	Device Management	X		X		X	X	X	
4.1.1.7	Command Interface Processing	X	X	X	X	X	X	X	
4.1.2	Guidance	X		X		X	X	X	
4.1.2.1	Reboost/Reentry Targetting	X	X	X	X	X	X	X	
4.1.2.2	Maneuver Coordination	X	X	X	X	X	X	X	
4.1.2.3	Collision Check	X		X		X	X	X	
4.1.2.4	Reboost/Maneuver	X		X		X	X	X	
4.1.2.5	Tether Control	X		X		X			
4.1.2.6	Determine Pointing Mount Control	X		X		X	X	X	
4.1.2.7	Device Management	X		X		X	X	X	
4.1.2.8	Command Interface Processing	X		X		X	X	X	
4.1.3	Attitude Control	X	X	X	X	X	X	X	
4.1.3.1	Attitude and Translation Control	X	X	X	X	X	X	X	
4.1.3.2	Generate Attitude Commands	X	X	X	X	X	X	X	
4.1.3.3	Momentum Management	X	X	X	X	X	X	X	
4.1.3.4	Pointing Mount Control	X	X	X	X	X	X	X	
4.1.3.5	Device Mgmt	X	X	X	X	X	X	X	

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Table H-1. Function Allocation to Systems (Continued)

FUNCTION NUMBER	FUNCTION NAME	IOC LOCATION ORBIT	IOC LOCATION GROUND	GROWTH LOCATION ORBIT	GROWTH LOCATION GROUND	VEHICLE/SYSTEM ASSIGNMENT STATION	COP	POP	COMMON
4.1.3.6	Cmmd I/F Processing	X	X	X	X	X	X	X	
4.1.4	Traffic Control	X		X		X			X
4.1.4.1	Compute/Propagate Constellation Rel. State	X		X		X			X
4.1.4.2	Manage Constellation Orbit Maneuvers	X		X		X			X
4.1.4.3	Schedule Deployment/Rendezvous	X		X		X			X
4.1.4.4	Manage Rendezvous	X		X		X			X
4.1.4.5	Target Collision Avoidance	X	X	X	X	X			X
4.1.4.6	Cmmd I/F Processing	X	X	X	X	X			X
4.1.5	Tracking	X		X		X			X
4.1.5.1	Long Range Object Tracking	X		X		X			X
4.1.5.2	Proximity Tracking	X		X		X			X
4.1.5.3	Object Catalog Maintenance	X		X		X			X
4.1.5.4	Tracking Data Conditioning	X		X		X			X
4.1.5.5	Device Mgmt	X		X		X			X
4.1.5.6	Cmmd I/F Processing	X	X	X	X	X			X
4.1.6	Time and Frequency Management	X		X		X			X
4.1.6.1	Time Source Mgmt	X		X		X			X
4.1.6.2	Time Update	X		X		X			X
4.1.6.3	Frequency Source Management	X		X		X			X
4.1.6.4	Device Mgmt	X		X		X			X
4.1.6.5	Cmmd I/F Processing	X	X	X	X	X			X
4.2	Operate Non-GN&C Core Systems								
4.2.1	Operate Power System	X		X		X	X	X	
4.2.1.1	Evaluate Array Performance	X		X		X	X	X	
4.2.1.2	Configure Power Distribution	X		X		X	X	X	
4.2.1.3	Power Source Mgmt	X		X		X	X	X	
4.2.1.4	Array Deployment	X		X		X	X	X	
4.2.1.5	Project Energy Available	X		X		X	X	X	
4.2.1.6	Device Mgmt	X		X		X	X	X	
4.2.1.7	Cmmd I/F Processing	X	X	X	X	X	X	X	
4.2.2	Operate Thermal Control System	X		X		X	X	X	
4.2.2.1	Manage Thermal Load	X		X		X	X	X	
4.2.2.2	Thermal Device Management	X		X		X	X	X	
4.2.2.3	Project Thermal Load Capacity	X		X		X	X	X	
4.2.2.4	Command I/F Processing	X	X	X	X	X	X	X	
4.2.3	Structures & Mechanism Support	X		X		X			
4.2.3.1	Mechanism Control/Safety	X		X		X			
4.2.3.2	MRMS Operation	X		X		X			
4.2.3.3	Manage Docking/Berthing	X		X		X			
4.2.3.4	Device Mgmt	X		X		X			
4.2.3.5	Cmmd I/F Processing	X	X	X	X	X			
4.2.4	ECLSS Operation	X		X		X			
4.2.4.1	Control Atmospheric Pressure and Composition	X		X		X			
4.2.4.2	Control Temperature, Humidity	X		X		X			
4.2.4.3	Potable Water Mgmt	X		X		X			
4.2.4.4	Grey Water Mgmt	X		X		X			
4.2.4.5	Fire Detection and Control	X		X		X			
4.2.4.6	Device Mgmt	X		X		X			
4.2.4.7	Cmmd I/F Processing	X	X	X	X	X			
4.2.5	Communication	X		X		X	X	X	
4.2.5.1	Communication Network Control	X		X		X	X	X	
4.2.5.2	Communication Equipment Control	X		X		X	X	X	
4.2.5.3	Communication Equipment Status Monitoring	X		X		X	X	X	

Table H-1. Function Allocation to Systems (Continued)

26-NOV-1985

FUNCTION NUMBER	FUNCTION NAME	IOC LOCATION ORBIT	IOC LOCATION GROUND	GROWTH LOCATION ORBIT	GROWTH LOCATION GROUND	VEHICLE/SYSTEM ASSIGNMENT STATION	COP	POP	COMMON
4.2.5.4	Failure Detection/Recovery	X		X		X	X	X	
4.2.5.5	Command Processing	X	X	X	X	X	X	X	
4.2.5.6	Communication Interface Control	X	X	X	X	X	X	X	
4.2.5.7	Telemetry Control	X		X		X			
4.3	Support Flight Crew Activities	X		X		X			
4.3.1	Health Maintenance	X		X		X			
4.3.1.1	Crew Physiological Monitoring	X		X		X			
4.3.1.2	Medical Diagnostics Support	X	X	X	X	X			
4.3.1.3	Treatment Support	X	X	X	X	X			
4.3.1.4	Nutrition Analysis	X		X		X			
4.3.1.5	Exercise Planner	X		X		X			
4.3.1.6	Physiological Data Transformation and Analysis	X		X		X			
4.3.1.7	Cmmd I/F Processing	X		X		X			
4.3.2	Space Station Safety	X		X		X	X	X	
4.3.2.1	Cautions & Warnings	X	X	X	X	X	X	X	
4.3.2.2	Abnormal and Emergency Procedures	X	X	X	X	X	X	X	
4.3.2.3	Automatic Control Processing	X		X		X	X	X	
4.3.2.4	Cmmd I/F Processing	X	X	X	X	X	X	X	
4.3.3	Habitability	X		X		X			
4.3.3.1	Recreation Services	X		X		X			
4.3.3.2	Crew/Ground Communications	X	X	X	X	X			
4.3.3.3	Cmmd I/F Processing	X		X		X			
4.3.4	EVA Support	X		X		X			
4.3.4.1	EMU Contamination Control	X		X		X			
4.3.4.10	Cmmd I/F Processing	X	X	X	X	X			
4.3.4.2	EMU Monitor and Maintenance	X		X		X			
4.3.4.3	MMU Monitor and Maintenance	X		X		X			
4.3.4.4	Safety Interlock Monitor & Control	X		X		X			
4.3.4.5	EVA Real Time Monitor & Control	X		X		X			
4.3.4.6	EVA Visual Information	X	X	X	X	X			
4.3.4.7	Airlock Atmospheric Pressure and Composition Cntrl	X		X		X			
4.3.4.8	Airlock Temperature and Humidity Control	X		X		X			
4.3.4.9	Device Mgmt	X		X		X			
4.3.5	Operations & Procedure Support	X		X		X			
4.3.5.1	Maintenance & Repair Procedures	X		X		X			
4.3.5.2	Operations Procedures	X		X		X			
4.3.5.3	General Data Processing Support	X		X		X			
4.3.5.4	General Purpose Programming Language	X		X		X			
4.3.5.5	Update System Software	X	X	X	X	X			
4.4	Provide Customer Avionics Services	X		X					
4.4.1	GN&C Services	X		X		X	X	X	
4.4.1.1	Gnd Track Determination	X		X		X	X	X	
4.4.1.2	Magnetic Field Determination	X		X		X	X	X	
4.4.1.3	Pallet Coarse Pointing	X		X		X	X	X	
4.4.1.4	Relative Alignment Determination	X		X		X	X	X	
4.4.2	Environment Monitor	X		X		X	X	X	
4.4.3	Tracking Services	X		X		X	X	X	
4.5	Monitor and Status System	X	X	X	X	X	X	X	
4.5.1	Monitor Core Systems Status	X	X	X	X	X	X	X	
4.5.2	Monitor Customer Systems Status	X	X	X	X	X	X	X	
4.5.3	Mass Properties Configuration Update	X	X	X	X	X	X	X	
4.5.4	Diagnostics Support		X	X	X	X	X	X	
4.5.4.1	Fault Analysis		X	X	X	X	X	X	

Table H-1. Function Allocation to Systems (Continued)

26-NOV-1985

FUNCTION NUMBER	FUNCTION NAME	IOC LOCATION ORBIT	IOC LOCATION GROUND	GROWTH LOCATION ORBIT	GROWTH LOCATION GROUND	VEHICLE/SYSTEM ASSIGNMENT STATION	VEHICLE/SYSTEM ASSIGNMENT COP	VEHICLE/SYSTEM ASSIGNMENT POP	VEHICLE/SYSTEM ASSIGNMENT COMMON
4.5.4.2	Fault Correction		X	X	X	X	X	X	
4.5.4.3	Trend Analysis		X	X	X	X	X	X	
4.5.5	System Test and Evaluation	X		X		X	X	X	
4.5.6	Command Interface Processing	X	X	X	X	X	X	X	
5.0	Manage Facilities and Resources								
5.1	Manage Flight System Facilities	X		X		X	X	X	
5.1.1	Flight Data Base Management	X		X		X	X	X	
5.1.1.1	Update/Access And Synchronization	X		X		X	X	X	
5.1.1.2	Data File Mgmt	X	X	X	X	X	X	X	
5.1.1.3	Mass Memory Resource Mgmt	X		X		X			
5.1.1.4	Archival Storage	X		X		X			
5.1.1.5	Device Mgmt	X		X		X	X	X	
5.1.1.6	Cmmd I/F Processing	X	X	X	X	X	X	X	
5.1.2	Flight Resource Mgmt	X		X		X	X	X	
5.1.2.1	Load Scheduling	X		X		X	X	X	
5.1.2.2	System Executive	X		X		X	X	X	
5.1.2.3	Initialization & Configuration Control	X		X		X	X	X	
5.1.2.4	Configure Data Processing Equipment	X		X		X	X	X	
5.1.2.5	Facility Status	X		X		X	X	X	
5.1.2.6	Reconfigure/Disconnect Payloads and Core Systems	X		X		X	X	X	
5.1.2.7	Device Mgmt	X	X	X	X	X			X
5.1.2.8	Cmmd I/F Processing	X		X		X			X
5.1.3	Displays & Controls	X		X		X			X
5.1.3.1	Display and Control Device Management	X		X		X			X
5.1.3.2	Display and Control Command Interface Management		X		X				X
5.2	Manage Ground System Facilities		X		X				X
5.2.1	Interface Management		X		X				X
5.2.2	Schedule/Status Compare		X		X				X
5.2.3	Transmit Reconfiguration Schedule		X		X				X
5.2.4	Ground Status Database Management		X		X				X
5.2.5	Adjust for Unscheduled Mode Change		X		X				X
6.0	Develop, Simulate, Integrate and Train		X		X				X
6.1	Interpret Model Requests		X		X				X
6.2	Develop Communications Model Configuration		X		X				X
6.3	Simulate Space Station Sys. Communication Elements		X		X				X
6.4	Develop Hardware Integration Configuration		X		X				X
6.5	Simulate Space Station Elements		X		X				X
6.6	Develop Software Integration Configuration		X		X				X
6.7	Simulate Space Station Processors	X	X	X	X	X			X
6.8	Conduct Training	X	X	X	X	X			X
6.8.1	Define Training Plan					X			X
6.8.2	Define Training Script					X			X
6.8.3	Define Model Requirements	X	X	X	X	X			X
6.8.4	Configure Simulation	X	X	X	X	X			X
6.8.5	Conduct Training Exercise	X	X	X	X	X			X
6.8.6	Evaluate Operator Performance	X	X	X	X	X			X
6.8.7	Maintain Operator Training Status		X		X				X
6.9	Develop Software		X		X				X
6.9.1	Configuration Control and Management Support		X		X				X
6.9.2	Requirement Analysis and Generation Tools		X		X				X
6.9.3	Design and Code Generation		X		X				X
6.9.4	Build and Delivery		X		X				X
6.9.5	Testing and Analysis		X		X				X

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Table H-1. Function Allocation to Systems (Continued)

FUNCTION NUMBER	FUNCTION NAME	IOC LOCATION ORBIT	IOC LOCATION GROUND	GROWTH LOCATION ORBIT	GROWTH LOCATION GROUND	VEHICLE/SYSTEM ASSIGNMENT STATION	COP	POP	COMMON
6.9.6	Documentation		X		X				X
6.9.7	Communication		X		X				X
6.9.8	Reconfiguration Data Management		X		X				X
7.0	Support Space Station Program		X		X				X
7.1	Maintain Ingegrated Logistics Plan		X		X				X
7.1.1	Analyze System Performance		X		X	X			X
7.1.2	Determine Effects On Integrated Plan		X		X				X
7.1.3	Analyze Affected Plans		X		X				X
7.1.4	Analyze Impact of Program Changes		X		X				X
7.2	Log Customer Usage of System		X		X				X
7.3	Maintain Technical Documentation		X		X				X
7.3.1	Analyze System Operation		X		X	X			X
7.3.2	Update Technical Documents		X		X				X
7.3.3	Analyze Program Changes		X		X				X
7.3.4	Transmit Procedures		X		X	X			X
7.4	Control Inventories		X		X				X
7.4.1	Monitor Customer Inventories		X		X				X
7.4.2	Monitor Station Inventories		X		X				X
7.4.3	Monitor Ground Facility Inventories		X		X				X
7.5	Configuration Management		X		X				X

Table H-2. Function Allocation to Ground Facilities

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GROUND END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	SSCC	POCC	RDC	DHC	EDC	POPCC	COPCC	CIF	COMM	GFM
1.0	Manage Customer/Operator Delivered Data										
1.1	Manage Real Time Data Return										
1.1.1	Acquire Realtime Data										
1.1.2	Prioritize Realtime Data										
1.1.3	Monitor Realtime Data										
1.1.4	Dispatch Realtime Data										
1.1.5	Format Realtime Data										
1.2	Manage Delayable Data Return										
1.2.1	Acquire Delayed Payload Data										
1.2.2	Prioritize Delayed Data										
1.2.3	Monitor Delayed Data										
1.2.4	Dispatch Delayed Data										
1.2.5	Format Delayed Data										
1.3	Data Distribution				X						
1.3.1	Preprocessing				X						
1.3.2	Data Capture				X						
1.3.3	Routing and Transmission				X						
1.3.4	Quality Verification				X						
1.4	Manage Deliverable Customer Data			X						X	
1.4.1	Customer-Data Interface Mgt			X						X	
1.4.2	Customer Data Capture			X						X	
1.4.3	Customer Data Handling			X						X	
1.4.4	Ancillary Data Acquisition			X		X				X	
1.4.5	Level 0 Customer Data Processing			X						X	
1.4.6	Customer Data Accounting			X						X	
1.4.7	Routing and Transmission			X						X	
1.5	Manage Deliverable Core Data	X					X	X			
1.5.1	Core Data Interface Management	X					X	X			
1.5.2	Core Data Capture	X					X	X			
1.5.3	Data Extraction	X					X	X			
1.5.4	Displays and Controls	X					X	X			
1.5.5	Engineering Data Analysis	X				X	X	X			
1.5.6	Core Data Accounting	X				X	X	X			
2.0	Manage Customer/Operator Supplied Data										X
2.1	Validate Payload Commands Data		X				X	X			
2.2	Check SSDS Service Requirements	X									
2.3	Validate Core Commands/Data	X					X	X			
2.3.1	Authorize Operator	X					X	X			
2.3.2	Authorize Operation	X					X	X			
2.4	Provide Ancillary Data										
2.5	Support Customer System Operation										
2.5.1	Customer Data Processing										
2.5.2	Customer Payload Operations										
2.5.3	Support OTV Operations										
2.5.3.1	OTV Servicing										
2.5.3.2	OTV Checkout & Diagnostics										
2.5.3.3	OTV Deployment/Retrieval										
2.5.3.4	OTV Operation										
2.5.3.5	OTV Status										
2.5.4	Support OMV Operations	X					X	X			
2.5.4.1	OMV Service										

Table H-2. Function Allocation to Ground Facilities (Continued)

GROUND END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	SSCC	POCC	RDC	DHC	EDC	POPCC	COPCC	CIF	COMM	GFM
2.5.4.2	OMV Checkout & Diagnostics										
2.5.4.3	OMV Deployment/Retrieval										
2.5.4.4	Remote Operations Control	X									
2.5.4.5	OMV Operation	X									
2.5.4.6	OMV Status										
2.5.5	Customer Payload Checkout/Service										
2.6	SSPE Checkout and Servicing										
3.0	Schedule and Execute Operations	X	X	X			X	X		X	X
3.1	Develop Recurring Operations Masters	X	X	X			X	X		X	X
3.1.1	Develop Normal Day Payload Operations	X	X	X			X	X		X	X
3.1.2	Develop Normal Day Core System Operations	X	X	X			X	X		X	X
3.1.3	Develop Mode Compatibility Matrix	X	X	X			X	X		X	X
3.1.4	Develop Major Event Operations	X					X	X		X	X
3.2	Develop Short Term Schedules	X					X	X		X	X
3.2.1	Confirm Payload and Core Schedules	X					X	X		X	X
3.2.2	Incorporate New/Revised Operations	X					X	X		X	X
3.2.3	Check for Conflicts	X					X	X		X	X
3.2.4	Check for Facilities Capabilities	X					X	X		X	X
3.2.5	Resolve Conflicts										
3.2.6	Maintain Short Term Schedules	X									
3.3	Develop Operating Events Schedule										
3.3.1	Time Tag Operations										
3.3.2	Check Schedule Conflicts										
3.3.3	Maintain Operating Events Schedule										
3.3.4	Adjust for Unscheduled Mode Changes										
3.4	Sequence Operations										
3.4.1	Sequence Payload Operations										
3.4.2	Sequence Core System Operations										
3.4.3	Command Schedules Mode Changes										
3.4.4	Check For Executability										
4.0	Operate Core Systems										
4.1	Operate GN&C System										
4.1.1	Navigation										
4.1.1.1	Spacecraft State/Orbit Determ.										
4.1.1.2	Constellation State/Orbit Determin.										
4.1.1.3	Determine Ephemerides (Sun, Moon, etc.)										
4.1.1.4	Attitude Determination										
4.1.1.5	Navigation State Propagation										
4.1.1.6	Device Management										
4.1.1.7	Command Interface Processing										
4.1.2	Guidance	X					X	X			
4.1.2.1	Reboost/Reentry Targetting										
4.1.2.2	Maneuver Coordination	X					X	X			
4.1.2.3	Collision Check	X					X	X			
4.1.2.4	Reboost/Maneuver										
4.1.2.5	Tether Control										
4.1.2.6	Determine Pointing Mount Control										
4.1.2.7	Device Management										
4.1.2.8	Command Interface Processing	X					X	X			
4.1.3	Attitude Control	X					X	X			
4.1.3.1	Attitude and Translation Control	X					X	X			

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Table H-2. Function Allocation to Ground Facilities (Continued)

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GROUND END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	SSCC	POCC	RDC	DHC	EDC	POPCC	COPCC	CIF	COMM	GFE
4.1.3.2	Generate Attitude Commands						X	X			
4.1.3.3	Momentum Management	X					X	X			
4.1.3.4	Pointing Mount Control	X					X	X			
4.1.3.5	Device Mgmt	X					X	X			
4.1.3.6	Cmmd I/F Processing	X					X	X			
4.1.4	Traffic Control										
4.1.4.1	Compute/Propagate Constellation Rel. State										
4.1.4.2	Manage Constellation Orbit Maneuvers										
4.1.4.3	Schedule Deployment/Rendezvous										
4.1.4.4	Manage Rendezvous										
4.1.4.5	Target Collision Avoidance	X				X	X				
4.1.4.6	Cmmd I/F Processing	X				X	X				
4.1.5	Tracking										
4.1.5.1	Long Range Object Tracking										
4.1.5.2	Proximity Tracking										
4.1.5.3	Object Catalog Maintenance										
4.1.5.4	Tracking Data Conditioning										
4.1.5.5	Device Mgmt	X				X	X				
4.1.5.6	Cmmd I/F Processing	X				X	X				
4.1.6	Time and Frequency Management										
4.1.6.1	Time Source Mgmt										
4.1.6.2	Time Update										
4.1.6.3	Frequency Source Management										
4.1.6.4	Device Mgmt	X				X	X				
4.1.6.5	Cmmd I/F Processing	X				X	X				
4.2	Operate Non-GN&C Core Systems										
4.2.1	Operate Power System										
4.2.1.1	Evaluate Array Performance										
4.2.1.2	Configure Power Distribution										
4.2.1.3	Power Source Mgmt										
4.2.1.4	Array Deployment										
4.2.1.5	Project Energy Available										
4.2.1.6	Device Mgmt	X				X	X				
4.2.1.7	Cmmd I/F Processing	X				X	X				
4.2.2	Operate Thermal Control System										
4.2.2.1	Manage Thermal Load										
4.2.2.2	Thermal Device Management										
4.2.2.3	Project Thermal Load Capacity										
4.2.2.4	Command I/F Processing	X				X	X				
4.2.3	Structures & Mechanism Support										
4.2.3.1	Mechanism Control/Safety										
4.2.3.2	MRMS Operation										
4.2.3.3	Manage Docking/Berthing										
4.2.3.4	Device Mgmt	X				X	X				
4.2.3.5	Cmmd I/F Processing	X				X	X				
4.2.4	ECLSS Operation										
4.2.4.1	Control Atmospheric Pressure and Composition										
4.2.4.2	Control Temperature, Humidity										
4.2.4.3	Potable Water Mgmt										
4.2.4.4	Grey Water Mgmt										
4.2.4.5	Fire Detection and Control										

Table H-2. Function Allocation to Ground Facilities (Continued)

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GROUND END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	SSCC	POCC	RDC	DHC	EDC	POPCC	COPCC	CIF	COMM	GFM
4.2.4.6	Device Mgmt										
4.2.4.7	Cmmd I/F Processing	X									
4.2.5	Communication										
4.2.5.1	Communication Network Control										
4.2.5.2	Communication Equipment Control										
4.2.5.3	Communication Equipment Status Monitoring										
4.2.5.4	Failure Detection/Recovery										
4.2.5.5	Command Processing	X					X	X			
4.2.5.6	Communication Interface Control										
4.2.5.7	Telemetry Control										
4.3	Support Flight Crew Activities										
4.3.1	Health Maintenance										
4.3.1.1	Crew Physiological Monitoring										
4.3.1.2	Medical Diagnostics Support	X									
4.3.1.3	Treatment Support	X									
4.3.1.4	Nutrition Analysis										
4.3.1.5	Exercise Planner										
4.3.1.6	Physiological Data Transformation and Analysis										
4.3.1.7	Cmmd I/F Processing										
4.3.2	Space Station Safety										
4.3.2.1	Cautions & Warnings	X				X	X				
4.3.2.2	Abnormal and Emergency Procedures	X					X	X			
4.3.2.3	Automatic Control Processing										
4.3.2.4	Cmmd I/F Processing	X					X	X			
4.3.3	Habitability										
4.3.3.1	Recreation Services										
4.3.3.2	Crew/Ground Communications	X									
4.3.3.3	Cmmd I/F Processing										
4.3.4	EVA Support										
4.3.4.1	EMU Contamination Control										
4.3.4.10	Cmmd I/F Processing	X									
4.3.4.2	EMU Monitor and Maintenance										
4.3.4.3	MMU Monitor and Maintenance										
4.3.4.4	Safety Interlock Monitor & Control										
4.3.4.5	EVA Real Time Monitor & Control	X									
4.3.4.6	EVA Visual Information										
4.3.4.7	Airlock Atmospheric Pressure and Composition Cntrl										
4.3.4.8	Airlock Temperature and Humidity Control										
4.3.4.9	Device Mgmt										
4.3.5	Operations & Procedure Support										
4.3.5.1	Maintenance & Repair Procedures										
4.3.5.2	Operations Procedures										
4.3.5.3	General Data Processing Support										
4.3.5.4	General Purpose Programming Language										
4.3.5.5	Update System Software										
4.4	Provide Customer Avionics Services										
4.4.1	GN&C Services										
4.4.1.1	Gnd Track Determination										
4.4.1.2	Magnetic Field Determination										
4.4.1.3	Pallet Coarse Pointing										
4.4.1.4	Relative Alignment Determination										

Table H-2. Function Allocation to Ground Facilities (Continued)

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GROUND END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	SSCC	POCC	RDC	DHC	EDC	POPCC	COPCC	CIF	COMM	GFM
4.4.2	Environment Monitor										
4.4.3	Tracking Services										
4.5	Monitor and Status System	X					X	X			
4.5.1	Monitor Core Systems Status	X					X	X			
4.5.2	Monitor Customer Systems Status	X					X	X			
4.5.3	Mass Properties Configuration Update	X					X	X			
4.5.4	Diagnostics Support	X					X	X			
4.5.4.1	Fault Analysis	X					X	X			
4.5.4.2	Fault Correction	X					X	X			
4.5.4.3	Trend Analysis	X					X	X			
4.5.5	System Test and Evaluation	X					X	X			
4.5.6	Command Interface Processing										
5.0	Manage Facilities and Resources										
5.1	Manage Flight System Facilities										
5.1.1	Flight Data Base Management						X	X			
5.1.1.1	Update/Access And Synchronization	X									
5.1.1.2	Data File Mgmt										
5.1.1.3	Mass Memory Resource Mgmt						X	X			
5.1.1.4	Archival Storage										
5.1.1.5	Device Mgmt	X									
5.1.1.6	Cmmd I/F Processing										
5.1.2	Flight Resource Mgmt										
5.1.2.1	Load Scheduling										
5.1.2.2	System Executive										
5.1.2.3	Initialization & Configuration Control										
5.1.2.4	Configure Data Processing Equipment										
5.1.2.5	Facility Status										
5.1.2.6	Reconfigure/Disconnect Payloads and Core Systems										
5.1.2.7	Device Mgmt	X					X	X			
5.1.2.8	Cmmd I/F Processing										
5.1.3	Displays & Controls										
5.1.3.1	Display and Control Device Management										X
5.1.3.2	Display and Control Command Interface Management										X
5.2	Manage Ground System Facilities										X
5.2.1	Interface Management										X
5.2.2	Schedule/Status Compare										X
5.2.3	Transmit Reconfiguration Schedule										X
5.2.4	Ground Status Database Management										
5.2.5	Adjust for Unscheduled Mode Change										
6.0	Develop, Simulate, Integrate and Train								X		
6.1	Interpret Model Requests								X		
6.2	Develop Communications Model Configuration								X		
6.3	Simulate Space Station Sys. Communication Elements								X		
6.4	Develop Hardware Integration Configuration								X		
6.5	Simulate Space Station Elements								X		
6.6	Develop Software Integration Configuration								X		
6.7	Simulate Space Station Processors	X		X			X	X	X		
6.8	Conduct Training	X		X			X	X	X		
6.8.1	Define Training Plan								X		
6.8.2	Define Training Script										
6.8.3	Define Model Requirements										

Table H-2. Function Allocation to Ground Facilities (Continued)

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GROUND END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	SSCC	POCC	RDC	DHC	EDC	POPCC	COPCC	CIF	COMM	GFM
6.8.4	Configure Simulation	X		X			X	X	X		
6.8.5	Conduct Training Exercise	X		X			X	X	X		
6.8.6	Evaluate Operator Performance	X		X			X	X	X		
6.8.7	Maintain Operator Training Status	X		X			X	X	X		
6.9	Develop Software								X		
6.9.1	Configuration Control and Management Support								X		
6.9.2	Requirement Analysis and Generation Tools								X		
6.9.3	Design and Code Generation								X		
6.9.4	Build and Delivery								X		
6.9.5	Testing and Analysis								X		
6.9.6	Documentation								X		
6.9.7	Communication								X		
6.9.8	Reconfiguration Data Management								X		
7.0	Support Space Station Program	X									
7.1	Maintain Ingegrated Logistics Plan	X					X	X			X
7.1.1	Analyze System Performance	X									
7.1.2	Determine Effects On Integrated Plan	X									
7.1.3	Analyze Affected Plans	X									
7.1.4	Analyze Impact of Program Changes	X									
7.2	Log Customer Usage of System	X									
7.3	Maintain Technical Documentation	X					X	X			X
7.3.1	Analyze System Operation	X									
7.3.2	Update Technical Documents	X									X
7.3.3	Analyze Program Changes	X									
7.3.4	Transmit Procedures	X									
7.4	Control Inventories	X									
7.4.1	Monitor Customer Inventories	X									
7.4.2	Monitor Station Inventories	X									
7.4.3	Monitor Ground Facility Inventories	X									
7.5	Configuration Management										

Table H-3. Function Allocation to Space Station/Platform Subsystems

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ORBIT END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	C&T	IDMS	ECLS	P/L ACC	GN&C	HAB	S&M	POWER	THERMAL
1.0	Manage Customer/Operator Delivered Data									
1.1	Manage Real Time Data Return									
1.1.1	Acquire Realtime Data	X								
1.1.2	Prioritize Realtime Data	X								
1.1.3	Monitor Realtime Data	X								
1.1.4	Dispatch Realtime Data	X								
1.1.5	Format Realtime Data	X								
1.2	Manage Delayable Data Return	X								
1.2.1	Acquire Delayed Payload Data	X								
1.2.2	Prioritize Delayed Data	X								
1.2.3	Monitor Delayed Data	X								
1.2.4	Dispatch Delayed Data	X								
1.2.5	Format Delayed Data	X								
1.3	Data Distribution									
1.3.1	Preprocessing									
1.3.2	Data Capture									
1.3.3	Routing and Transmission									
1.3.4	Quality Verification									
1.4	Manage Deliverable Customer Data									
1.4.1	Customer-Data Interface Mgt									
1.4.2	Customer Data Capture									
1.4.3	Customer Data Handling									
1.4.4	Ancillary Data Acquisition									
1.4.5	Level 0 Customer Data Processing									
1.4.6	Customer Data Accounting									
1.4.7	Routing and Transmission									
1.5	Manage Deliverable Core Data									
1.5.1	Core Data Interface Management									
1.5.2	Core Data Capture									
1.5.3	Data Extraction									
1.5.4	Displays and Controls									
1.5.5	Engineering Data Analysis									
1.5.6	Core Data Accounting									
2.0	Manage Customer/Operator Supplied Data		X							
2.1	Validate Payload Commands Data		X							
2.2	Check SSDS Service Requirements		X							
2.3	Validate Core Commands/Data		X							
2.3.1	Authorize Operator		X							
2.3.2	Authorize Operation				X					
2.4	Provide Ancillary Data				X					
2.5	Support Customer System Operation				X					
2.5.1	Customer Data Processing				X					
2.5.2	Customer Payload Operations				X					
2.5.3	Support OTV Operations				X					
2.5.3.1	OTV Servicing				X					
2.5.3.2	OTV Checkout & Diagnostics				X					
2.5.3.3	OTV Deployment/Retrieval					X				
2.5.3.4	OTV Operation	X								
2.5.3.5	OTV Status									
2.5.4	Support OMV Operations				X					
2.5.4.1	OMV Service									

Table H-3. Function Allocation to Space Station/Platform Subsystems (Continued)

FUNCTION NUMBER	FUNCTION NAME	ORBIT END ITEM ASSIGNMENT							
		C&T	IDMS	ECLS	P/L ACC	GN&C	HAB	S&M	POWER	THERMAL
2.5.4.2	OMV Checkout & Diagnostics				X					
2.5.4.3	OMV Deployment/Retrieval				X					
2.5.4.4	Remote Operations Control				X					
2.5.4.5	OMV Operation	X								
2.5.4.6	OMV Status				X					
2.5.5	Customer Payload Checkout/Service				X					
2.6	SSPE Checkout and Servicing									
3.0	Schedule and Execute Operations									
3.1	Develop Recurring Operations Masters									
3.1.1	Develop Normal Day Payload Operations									
3.1.2	Develop Normal Day Core System Operations									
3.1.3	Develop Mode Compatibility Matrix									
3.1.4	Develop Major Event Operations									
3.2	Develop Short Term Schedules									
3.2.1	Confirm Payload and Core Schedules									
3.2.2	Incorporate New/Revised Operations									
3.2.3	Check for Conflicts									
3.2.4	Check for Facilities Capabilities									
3.2.5	Resolve Conflicts									
3.2.6	Maintain Short Term Schedules									
3.3	Develop Operating Events Schedule		X							
3.3.1	Time Tag Operations		X							
3.3.2	Check Schedule Conflicts		X							
3.3.3	Maintain Operating Events Schedule		X							
3.3.4	Adjust for Unscheduled Mode Changes		X							
3.4	Sequence Operations		X							
3.4.1	Sequence Payload Operations		X							
3.4.2	Sequence Core System Operations		X							
3.4.3	Command Schedules Mode Changes	X								
3.4.4	Check For Executability									
4.0	Operate Core Systems									
4.1	Operate GN&C System					X				
4.1.1	Navigation					X				
4.1.1.1	Spacecraft State/Orbit Determ.					X				
4.1.1.2	Constellation State/Orbit Determin.					X				
4.1.1.3	Determine Ephemerides (Sun, Moon, etc.)					X				
4.1.1.4	Attitude Determination					X				
4.1.1.5	Navigation State Propagation					X				
4.1.1.6	Device Management					X				
4.1.1.7	Command Interface Processing					X				
4.1.2	Guidance					X				
4.1.2.1	Reboost/Reentry Targetting					X				
4.1.2.2	Maneuver Coordination					X				
4.1.2.3	Collision Check					X				
4.1.2.4	Reboost/Maneuver					X				
4.1.2.5	Tether Control					X				
4.1.2.6	Determine Pointing Mount Control					X				
4.1.2.7	Device Management					X				
4.1.2.8	Command Interface Processing					X				
4.1.3	Attitude Control					X				
4.1.3.1	Attitude and Translation Control									

Table H-3. Function Allocation to Space Station/Platform Subsystems (Continued)

ORBIT END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	C&T	IDMS	ECLS	P/L ACC	GN&C	HAB	S&M	POWER	THERMAL
4.1.3.2	Generate Attitude Commands					X				
4.1.3.3	Momentum Management					X				
4.1.3.4	Pointing Mount Control					X				
4.1.3.5	Device Mgmt					X				
4.1.3.6	Cmmd I/F Processing					X				
4.1.4	Traffic Control					X				
4.1.4.1	Compute/Propagate Constellation Rel. State					X				
4.1.4.2	Manage Constellation Orbit Maneuvers					X				
4.1.4.3	Schedule Deployment/Rendezvous					X				
4.1.4.4	Manage Rendezvous					X				
4.1.4.5	Target Collision Avoidance					X				
4.1.4.6	Cmmd I/F Processing					X				
4.1.5	Tracking					X				
4.1.5.1	Long Range Object Tracking					X				
4.1.5.2	Proximity Tracking					X				
4.1.5.3	Object Catalog Maintenance					X				
4.1.5.4	Tracking Data Conditioning									
4.1.5.5	Device Mgmt	X				X				
4.1.5.6	Cmmd I/F Processing									
4.1.6	Time and Frequency Management		X							
4.1.6.1	Time Source Mgmt		X							
4.1.6.2	Time Update		X							
4.1.6.3	Frequency Source Management		X							
4.1.6.4	Device Mgmt		X							
4.1.6.5	Cmmd I/F Processing									
4.2	Operate Non-GN&C Core Systems								X	
4.2.1	Operate Power System								X	
4.2.1.1	Evaluate Array Performance								X	
4.2.1.2	Configure Power Distribution								X	
4.2.1.3	Power Source Mgmt								X	
4.2.1.4	Array Deployment								X	
4.2.1.5	Project Energy Available								X	
4.2.1.6	Device Mgmt								X	
4.2.1.7	Cmmd I/F Processing									X
4.2.2	Operate Thermal Control System									X
4.2.2.1	Manage Thermal Load									X
4.2.2.2	Thermal Device Management									X
4.2.2.3	Project Thermal Load Capacity									X
4.2.2.4	Command I/F Processing									X
4.2.3	Structures & Mechanism Support							X		
4.2.3.1	Mechanism Control/Safety							X		
4.2.3.2	MRMS Operation							X		
4.2.3.3	Manage Docking/Berthing							X		
4.2.3.4	Device Mgmt							X		
4.2.3.5	Cmmd I/F Processing							X		
4.2.4	ECLSS Operation			X						
4.2.4.1	Control Atmospheric Pressure and Composition			X						
4.2.4.2	Control Temperature, Humidity			X						
4.2.4.3	Potable Water Mgmt			X						
4.2.4.4	Grey Water Mgmt			X						
4.2.4.5	Fire Detection and Control			X						

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Table H-3. Function Allocation to Space Station/Platform Subsystems (Continued)

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ORBIT END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	C&T	IDMS	ECLS	P/L ACC	GN&C	HAB	S&M	POWER	THERMAL
4.2.4.6	Device Mgmt			X						
4.2.4.7	Cmmd I/F Processing			X						
4.2.5	Communication	X								
4.2.5.1	Communication Network Control	X								
4.2.5.2	Communication Equipment Control	X								
4.2.5.3	Communication Equipment Status Monitoring	X								
4.2.5.4	Failure Detection/Recovery	X								
4.2.5.5	Command Processing	X								
4.2.5.6	Communication Interface Control	X								
4.2.5.7	Telemetry Control	X								
4.3	Support Flight Crew Activities						X			
4.3.1	Health Maintenance						X			
4.3.1.1	Crew Physiological Monitoring						X			
4.3.1.2	Medical Diagnostics Support						X			
4.3.1.3	Treatment Support						X			
4.3.1.4	Nutrition Analysis						X			
4.3.1.5	Exercise Planner						X			
4.3.1.6	Physiological Data Transformation and Analysis						X			
4.3.1.7	Cmmd I/F Processing		X							
4.3.2	Space Station Safety		X							
4.3.2.1	Cautions & Warnings		X							
4.3.2.2	Abnormal and Emergency Procedures		X							
4.3.2.3	Automatic Control Processing		X							
4.3.2.4	Cmmd I/F Processing						X			
4.3.3	Habitability						X			
4.3.3.1	Recreation Services	X								
4.3.3.2	Crew/Ground Communications						X			
4.3.3.3	Cmmd I/F Processing						X			
4.3.4	EVA Support						X			
4.3.4.1	EMU Contamination Control						X			
4.3.4.10	Cmmd I/F Processing						X			
4.3.4.2	EMU Monitor and Maintenance						X			
4.3.4.3	HMU Monitor and Maintenance						X			
4.3.4.4	Safety Interlock Monitor & Control						X			
4.3.4.5	EVA Real Time Monitor & Control						X			
4.3.4.6	EVA Visual Information						X			
4.3.4.7	Airlock Atmospheric Pressure and Composition Cntrl						X			
4.3.4.8	Airlock Temperature and Humidity Control						X			
4.3.4.9	Device Mgmt		X							
4.3.5	Operations & Procedure Support		X							
4.3.5.1	Maintenance & Repair Procedures		X							
4.3.5.2	Operations Procedures		X							
4.3.5.3	General Data Processing Support		X							
4.3.5.4	General Purpose Programming Language		X							
4.3.5.5	Update System Software									
4.4	Provide Customer Avionics Services				X					
4.4.1	GN&C Services				X					
4.4.1.1	Gnd Track Determination				X					
4.4.1.2	Magnetic Field Determination				X					
4.4.1.3	Pallet Coarse Pointing				X					
4.4.1.4	Relative Alignment Determination				X					

Table H-3. Function Allocation to Space Station/Platform Subsystems (Continued)

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ORBIT END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	C&T	IDMS	ECLS	P/L ACC	GN&C	HAB	S&M	POWER	THERMAL
4.4.2	Environment Monitor				X					
4.4.3	Tracking Services				X					
4.5	Monitor and Status System		X							
4.5.1	Monitor Core Systems Status		X		X					
4.5.2	Monitor Customer Systems Status		X							
4.5.3	Mass Properties Configuration Update									
4.5.4	Diagnostics Support									
4.5.4.1	Fault Analysis									
4.5.4.2	Fault Correction									
4.5.4.3	Trend Analysis		X							
4.5.5	System Test and Evaluation		X							
4.5.6	Command Interface Processing									
5.0	Manage Facilities and Resources		X							
5.1	Manage Flight System Facilities		X							
5.1.1	Flight Data Base Management		X							
5.1.1.1	Update/Access And Synchronization		X							
5.1.1.2	Data File Mgmt		X							
5.1.1.3	Mass Memory Resource Mgmt		X							
5.1.1.4	Archival Storage		X							
5.1.1.5	Device Mgmt		X							
5.1.1.6	Cmmd I/F Processing		X							
5.1.2	Flight Resource Mgmt		X							
5.1.2.1	Load Scheduling		X							
5.1.2.2	System Executive		X							
5.1.2.3	Initialization & Configuration Control		X							
5.1.2.4	Configure Data Processing Equipment		X							
5.1.2.5	Facility Status		X							
5.1.2.6	Reconfigure/Disconnect Payloads and Core Systems		X							
5.1.2.7	Device Mgmt		X							
5.1.2.8	Cmmd I/F Processing		X							
5.1.3	Displays & Controls		X							
5.1.3.1	Display and Control Device Management		X							
5.1.3.2	Display and Control Command Interface Management									
5.2	Manage Ground System Facilities									
5.2.1	Interface Management									
5.2.2	Schedule/Status Compare									
5.2.3	Transmit Reconfiguration Schedule									
5.2.4	Ground Status Database Management									
5.2.5	Adjust for Unscheduled Mode Change		X							
6.0	Develop, Simulate, Integrate and Train									
6.1	Interpret Model Requests									
6.2	Develop Communications Model Configuration									
6.3	Simulate Space Station Sys. Communication Elements									
6.4	Develop Hardware Integration Configuration									
6.5	Simulate Space Station Elements									
6.6	Develop Software Integration Configuration									
6.7	Simulate Space Station Processors		X							
6.8	Conduct Training		X							
6.8.1	Define Training Plan									
6.8.2	Define Training Script									
6.8.3	Define Model Requirements									

Table H-3. Function Allocation to Space Station/Platform Subsystems (Continued)

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ORBIT END ITEM ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	C&T	IDMS	ECLS	P/L ACC	GN&C	HAB	S&M	POWER	THERMAL
6.8.4	Configure Simulation		X							
6.8.5	Conduct Training Exercise		X							
6.8.6	Evaluate Operator Performance		X							
6.8.7	Maintain Operator Training Status		X							
6.9	Develop Software									
6.9.1	Configuration Control and Management Support									
6.9.2	Requirement Analysis and Generation Tools									
6.9.3	Design and Code Generation									
6.9.4	Build and Delivery									
6.9.5	Testing and Analysis									
6.9.6	Documentation									
6.9.7	Communication									
6.9.8	Reconfiguration Data Management									
7.0	Support Space Station Program		X							
7.1	Maintain Ingegrated Logistics Plan									
7.1.1	Analyze System Performance									
7.1.2	Determine Effects On Integrated Plan									
7.1.3	Analyze Affected Plans									
7.1.4	Analyze Impact of Program Changes									
7.2	Log Customer Usage of System									
7.3	Maintain Technical Documentation									
7.3.1	Analyze System Operation									
7.3.2	Update Technical Documents									
7.3.3	Analyze Program Changes									
7.3.4	Transmit Procedures									
7.4	Control Inventories									
7.4.1	Monitor Customer Inventories									
7.4.2	Monitor Station Inventories									
7.4.3	Monitor Ground Facility Inventories									
7.5	Configuration Management									

Table H-4. Function Allocation to Space Station Modules

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SPACE STATION MODULE ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	HAB1	HAB2	LAB1	LAB2	AIRLOCK	LOG	UPPERKEEL	LOWERKEEL	BOOM
1.0	Manage Customer/Operator Delivered Data									
1.1	Manage Real Time Data Return			X						X
1.1.1	Acquire Realtime Data	X	X	X	X					
1.1.2	Prioritize Realtime Data			X						
1.1.3	Monitor Realtime Data			X						
1.1.4	Dispatch Realtime Data			X						
1.1.5	Format Realtime Data			X						
1.2	Manage Delayable Data Return			X						X
1.2.1	Acquire Delayed Payload Data	X	X	X	X					
1.2.2	Prioritize Delayed Data			X						
1.2.3	Monitor Delayed Data			X						
1.2.4	Dispatch Delayed Data			X						
1.2.5	Format Delayed Data			X						
1.3	Data Distribution									
1.3.1	Preprocessing									
1.3.2	Data Capture									
1.3.3	Routing and Transmission									
1.3.4	Quality Verification									
1.4	Manage Deliverable Customer Data									
1.4.1	Customer-Data Interface Mgt									
1.4.2	Customer Data Capture									
1.4.3	Customer Data Handling									
1.4.4	Ancillary Data Acquisition									
1.4.5	Level 0 Customer Data Processing									
1.4.6	Customer Data Accounting									
1.4.7	Routing and Transmission									
1.5	Manage Deliverable Core Data									
1.5.1	Core Data Interface Management									
1.5.2	Core Data Capture									
1.5.3	Data Extraction									
1.5.4	Displays and Controls									
1.5.5	Engineering Data Analysis									
1.5.6	Core Data Accounting									
2.0	Manage Customer/Operator Supplied Data		X							
2.1	Validate Payload Commands Data		X							
2.2	Check SSDS Service Requirements	X	X	X	X					
2.3	Validate Core Commands/Data	X	X	X	X					
2.3.1	Authorize Operator	X	X	X	X					
2.3.2	Authorize Operation			X						
2.4	Provide Ancillary Data			X						
2.5	Support Customer System Operation			X	X					
2.5.1	Customer Data Processing			X						
2.5.2	Customer Payload Operations			X						
2.5.3	Support OTV Operations			X						
2.5.3.1	OTV Servicing			X						
2.5.3.2	OTV Checkout & Diagnostics									X
2.5.3.3	OTV Deployment/Retrieval		X							
2.5.3.4	OTV Operation			X						
2.5.3.5	OTV Status			X						
2.5.4	Support OMV Operations			X						
2.5.4.1	OMV Service									

Table H-4. Function Allocation to Space Station Modules (Continued)

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SPACE STATION MODULE ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	HAB1	HAB2	LAB1	LAB2	AIRLOCK	LOG	UPPERKEEL	LOWERKEEL	BOOM
2.5.4.2	OMV Checkout & Diagnostics			X						
2.5.4.3	OMV Deployment/Retrieval			X						
2.5.4.4	Remote Operations Control		X							
2.5.4.5	OMV Operation		X							
2.5.4.6	OMV Status			X						
2.5.5	Customer Payload Checkout/Service			X						
2.6	SSPE Checkout and Servicing			X						
3.0	Schedule and Execute Operations									
3.1	Develop Recurring Operations Masters									
3.1.1	Develop Normal Day Payload Operations									
3.1.2	Develop Normal Day Core System Operations									
3.1.3	Develop Mode Compatibility Matrix									
3.1.4	Develop Major Event Operations									
3.2	Develop Short Term Schedules									
3.2.1	Confirm Payload and Core Schedules									
3.2.2	Incorporate New/Revised Operations									
3.2.3	Check for Conflicts									
3.2.4	Check for Facilities Capabilities									
3.2.5	Resolve Conflicts									
3.2.6	Maintain Short Term Schedules									
3.3	Develop Operating Events Schedule		X							
3.3.1	Time Tag Operations		X							
3.3.2	Check Schedule Conflicts		X							
3.3.3	Maintain Operating Events Schedule		X							
3.3.4	Adjust for Unscheduled Mode Changes		X							
3.4	Sequence Operations		X							
3.4.1	Sequence Payload Operations		X							
3.4.2	Sequence Core System Operations		X							
3.4.3	Command Schedules Mode Changes		X							
3.4.4	Check For Executability									
4.0	Operate Core Systems									X
4.1	Operate GN&C System									X
4.1.1	Navigation									X
4.1.1.1	Spacecraft State/Orbit Determ.									X
4.1.1.2	Constellation State/Orbit Determin.									X
4.1.1.3	Determine Ephemerides (Sun, Moon, etc.)									X
4.1.1.4	Attitude Determination									X
4.1.1.5	Navigation State Propagation									
4.1.1.6	Device Management	X	X							X
4.1.1.7	Command Interface Processing									X
4.1.2	Guidance									X
4.1.2.1	Reboost/Reentry Targetting									X
4.1.2.2	Maneuver Coordination									X
4.1.2.3	Collision Check									X
4.1.2.4	Reboost/Maneuver									X
4.1.2.5	Tether Control									
4.1.2.6	Determine Pointing Mount Control									X
4.1.2.7	Device Management	X	X							X
4.1.2.8	Command Interface Processing									X
4.1.3	Attitude Control									
4.1.3.1	Attitude and Translation Control									

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Table H-4. Function Allocation to Space Station Modules (Continued)

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SPACE STATION MODULE ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	HAB1	HAB2	LAB1	LAB2	AIRLOCK	LOG	UPPERKEEL	LOWERKEEL	BOOM
4.1.3.2	Generate Attitude Commands									X
4.1.3.3	Momentum Management									X
4.1.3.4	Pointing Mount Control									X
4.1.3.5	Device Mgmt	X	X							
4.1.3.6	Cmmd I/F Processing		X							
4.1.4	Traffic Control		X							
4.1.4.1	Compute/Propagate Constellation Rel. State		X							
4.1.4.2	Manage Constellation Orbit Maneuvers		X							
4.1.4.3	Schedule Deployment/Rendezvous		X							
4.1.4.4	Manage Rendezvous		X							
4.1.4.5	Target Collision Avoidance	X	X							
4.1.4.6	Cmmd I/F Processing		X							
4.1.5	Tracking		X							
4.1.5.1	Long Range Object Tracking		X							
4.1.5.2	Proximity Tracking		X							
4.1.5.3	Object Catalog Maintenance		X							
4.1.5.4	Tracking Data Conditioning		X							
4.1.5.5	Device Mgmt	X	X							
4.1.5.6	Cmmd I/F Processing		X							
4.1.6 .	Time and Frequency Management		X							
4.1.6.1	Time Source Mgmt		X							
4.1.6.2	Time Update		X							
4.1.6.3	Frequency Source Management		X							
4.1.6.4	Device Mgmt	X	X							
4.1.6.5	Cmmd I/F Processing									
4.2	Operate Non-GN&C Core Systems		X							
4.2.1	Operate Power System		X						X	
4.2.1.1	Evaluate Array Performance	X	X	X	X	X	X	X		X
4.2.1.2	Configure Power Distribution									X
4.2.1.3	Power Source Mgmt									
4.2.1.4	Array Deployment		X							X
4.2.1.5	Project Energy Available	X	X	X	X	X	X	X	X	
4.2.1.6	Device Mgmt	X	X							
4.2.1.7	Cmmd I/F Processing	X	X							
4.2.2	Operate Thermal Control System	X	X	X	X	X	X	X	X	X
4.2.2.1	Manage Thermal Load	X	X	X	X	X	X	X	X	X
4.2.2.2	Thermal Device Management		X							
4.2.2.3	Project Thermal Load Capacity	X	X							
4.2.2.4	Command I/F Processing	X								
4.2.3	Structures & Mechanism Support	X	X	X	X	X			X	
4.2.3.1	Mechanism Control/Safety								X	X
4.2.3.2	MRMS Operation	X							X	
4.2.3.3	Manage Docking/Berthing	X	X	X	X	X				
4.2.3.4	Device Mgmt	X	X							
4.2.3.5	Cmmd I/F Processing	X	X							
4.2.4	ECLSS Operation	X	X	X	X	X				
4.2.4.1	Control Atmospheric Pressure and Composition	X	X	X	X	X				
4.2.4.2	Control Temperature, Humidity	X					X			
4.2.4.3	Potable Water Mgmt	X					X			
4.2.4.4	Grey Water Mgmt	X	X	X	X	X	X			
4.2.4.5	Fire Detection and Control									

Table H-4. Function Allocation to Space Station Modules (Continued)

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SPACE STATION MODULE ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	HAB1	HAB2	LAB1	LAB2	AIRLOCK	LOG	UPPERKEEL	LOWERKEEL	BOOM
4.2.4.6	Device Mgmt	X	X	X	X	X	X			
4.2.4.7	Cmmd I/F Processing	X	X							
4.2.5	Communication		X							
4.2.5.1	Communication Network Control		X							
4.2.5.2	Communication Equipment Control		X							
4.2.5.3	Communication Equipment Status Monitoring		X							
4.2.5.4	Failure Detection/Recovery		X							
4.2.5.5	Command Processing		X							
4.2.5.6	Communication Interface Control		X							
4.2.5.7	Telemetry Control		X							
4.3	Support Flight Crew Activities	X								
4.3.1	Health Maintenance	X								
4.3.1.1	Crew Physiological Monitoring	X								
4.3.1.2	Medical Diagnostics Support	X								
4.3.1.3	Treatment Support	X								
4.3.1.4	Nutrition Analysis	X								
4.3.1.5	Exercise Planner	X								
4.3.1.6	Physiological Data Transformation and Analysis	X								
4.3.1.7	Cmmd I/F Processing		X							
4.3.2	Space Station Safety	X	X	X	X	X				
4.3.2.1	Cautions & Warnings	X	X	X	X	X				
4.3.2.2	Abnormal and Emergency Procedures	X	X	X	X	X				
4.3.2.3	Automatic Control Processing	X	X	X	X					
4.3.2.4	Cmmd I/F Processing		X							
4.3.3	Habitability		X							
4.3.3.1	Recreation Services		X							
4.3.3.2	Crew/Ground Communications		X							
4.3.3.3	Cmmd I/F Processing		X							
4.3.4	EVA Support					X				
4.3.4.1	EMU Contamination Control	X	X							
4.3.4.10	Cmmd I/F Processing					X				
4.3.4.2	EMU Monitor and Maintenance					X				
4.3.4.3	MMU Monitor and Maintenance	X								
4.3.4.4	Safety Interlock Monitor & Control	X								
4.3.4.5	EVA Real Time Monitor & Control	X								
4.3.4.6	EVA Visual Information					X				
4.3.4.7	Airlock Atmospheric Pressure and Composition Cntrl					X				
4.3.4.8	Airlock Temperature and Humidity Control	X				X				
4.3.4.9	Device Mgmt		X							
4.3.5	Operations & Procedure Support		X							
4.3.5.1	Maintenance & Repair Procedures		X							
4.3.5.2	Operations Procedures		X							
4.3.5.3	General Data Processing Support		X							
4.3.5.4	General Purpose Programming Language		X							
4.3.5.5	Update System Software									
4.4	Provide Customer Avionics Services			X						
4.4.1	GN&C Services			X						
4.4.1.1	Gnd Track Determination			X						
4.4.1.2	Magnetic Field Determination			X						
4.4.1.3	Pallet Coarse Pointing									

Table H-4. Function Allocation to Space Station Modules (Continued)

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SPACE STATION MODULE ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	HAB1	HAB2	LAB1	LAB2	AIRLOCK	LOG	UPPERKEEL	LOWERKEEL	BOOM
4.4.1.4	Relative Alignment Determination			X						
4.4.2	Environment Monitor			X						
4.4.3	Tracking Services			X						
4.5	Monitor and Status System		X							
4.5.1	Monitor Core Systems Status			X						
4.5.2	Monitor Customer Systems Status		X							
4.5.3	Mass Properties Configuration Update									
4.5.4	Diagnostics Support									
4.5.4.1	Fault Analysis									
4.5.4.2	Fault Correction									
4.5.4.3	Trend Analysis		X							
4.5.5	System Test and Evaluation	X	X							
4.5.6	Command Interface Processing									
5.0	Manage Facilities and Resources		X							
5.1	Manage Flight System Facilities		X							
5.1.1	Flight Data Base Management		X							
5.1.1.1	Update/Access And Synchronization		X							
5.1.1.2	Data File Mgmt		X							
5.1.1.3	Mass Memory Resource Mgmt		X							
5.1.1.4	Archival Storage		X							
5.1.1.5	Device Mgmt		X							
5.1.1.6	Cmmd I/F Processing		X							
5.1.2	Flight Resource Mgmt		X							
5.1.2.1	Load Scheduling		X							
5.1.2.2	System Executive		X							
5.1.2.3	Initialization & Configuration Control		X							
5.1.2.4	Configure Data Processing Equipment		X							
5.1.2.5	Facility Status		X							
5.1.2.6	Reconfigure/Disconnect Payloads and Core Systems		X							
5.1.2.7	Device Mgmt		X							
5.1.2.8	Cmmd I/F Processing		X							
5.1.3	Displays & Controls		X							
5.1.3.1	Display and Control Device Management		X							
5.1.3.2	Display and Control Command Interface Management									
5.2	Manage Ground System Facilities									
5.2.1	Interface Management									
5.2.2	Schedule/Status Compare									
5.2.3	Transmit Reconfiguration Schedule									
5.2.4	Ground Status Database Management									
5.2.5	Adjust for Unscheduled Mode Change		X							
6.0	Develop, Simulate, Integrate and Train									
6.1	Interpret Model Requests									
6.2	Develop Communications Model Configuration									
6.3	Simulate Space Station Sys. Communication Elements									
6.4	Develop Hardware Integration Configuration									
6.5	Simulate Space Station Elements									
6.6	Develop Software Integration Configuration									
6.7	Simulate Space Station Processors									

Table H-4. Function Allocation to Space Station Modules (Continued)

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SPACE STATION MODULE ASSIGNMENT

FUNCTION NUMBER	FUNCTION NAME	HAB1	HAB2	LAB1	LAB2	AIRLOCK	LOG	UPPERKEEL	LOWERKEEL	BOOM
6.8	Conduct Training									
6.8.1	Define Training Plan		X							
6.8.2	Define Training Script		X							
6.8.3	Define Model Requirements									
6.8.4	Configure Simulation		X							
6.8.5	Conduct Training Exercise		X							
6.8.6	Evaluate Operator Performance		X							
6.8.7	Maintain Operator Training Status		X							
6.9	Develop Software									
6.9.1	Configuration Control and Management Support									
6.9.2	Requirement Analysis and Generation Tools									
6.9.3	Design and Code Generation									
6.9.4	Build and Delivery									
6.9.5	Testing and Analysis									
6.9.6	Documentation									
6.9.7	Communication									
6.9.8	Reconfiguration Data Management									
7.0	Support Space Station Program		X							
7.1	Maintain Ingegrated Logistics Plan									
7.1.1	Analyze System Performance									
7.1.2	Determine Effects On Integrated Plan									
7.1.3	Analyze Affected Plans									
7.1.4	Analyze Impact of Program Changes									
7.2	Log Customer Usage of System									
7.3	Maintain Technical Documentation									
7.3.1	Analyze System Operation									
7.3.2	Update Technical Documents									
7.3.3	Analyze Program Changes									
7.3.4	Transmit Procedures									
7.4	Control Inventories									
7.4.1	Monitor Customer Inventories									
7.4.2	Monitor Station Inventories									
7.4.3	Monitor Ground Facility Inventories									
7.5	Configuration Management									

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