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ELECTRICAL-POWER-SYSTEM DATA BASE FOR CONSUMABLES ANALYSIS VOLUME II - ELECTRICAL EQUIPMENT UTILIZATION

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MISSION PLANNING AND ANALYSIS DIVISION
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SHUTTLE PROGRAM

ELECTRICAL-POWER-SYSTEM DATA BASE FOR CONSUMABLES ANALYSIS VOLUME II - ELECTRICAL EQUIPMENT UTILIZATION

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MISSION PLANNING AND ANALYSIS DIVISION
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The following JSC groups were also contributors.

Power/Pyro/Sequential Section of the Electrical and Environmental Systems Branch, Flight Control Division (provided equipment utilization information, reference 6)

Flight Plan Development Section of the Flight Planning Branch, Crew Training and Procedures Division (provided assistance in defining the activity blocks)

Communications, Power, and Data Systems Branch, Avionics Systems Engineering Division (provided supplemental electrical equipment and distribution network data, reference 12)

CONTENTS

TABLES

ELECTRICAL-POWER-SYSTEM DATA BASE

FOR CONSUMABLES ANALYSIS

VOLUME II - ELECTRICAL EQUIPMENT UTILIZATION

1.0 SUMMARY

This document is a catalogue of space shuttle electrical equipment as used within a standardized data base for EPS consumables analyses. The document describes the general function and expected usage of each type of electrical equipment, and defines how specific equipment of each type is to be utilized in the performance of EPS consumables analyses.

2.0 INTRODUCTION

An EPS data base has been developed to standardize space shuttle consumables analyses, simplify analysis techniques, and provide a direct means of correlating mission analyses with planned mission activities. The data base consists of the space shuttle electrical equipment list, activity blocks defining electrical equipment utilization, and activity-block time lines for specific mission analyses.

Volume I of this document presents a detailed description of the EPS data base (ref. 1). In addition, it establishes a baseline electrical equipment list, defines a set of activity blocks, and presents the activity-block time lines for the four NASA baseline reference missions.

This volume catalogues the data used in the development of the EPS data base and establishes guidelines for equipment usage in future data base development. The document has three primary objectives; one, to insure proper equipment utilization within EPS consumables analyses; two, to serve as a guide in the performance of EPS consumables analyses on a wide variety of missions; and three, to simplify the correlation of analysis results with planned mission activities.

To accomplish these objectives, each type of electrical equipment has been reviewed to identify its general function and planned usage. From this data, the analysis usage of specific components of each type has been specified for long, short, and approach and landing test (ALT) consumables sizing flights. In addition, an attempt has been made to identify equipment, requiring power during on-orbit contingency periods.

3.0 SYMBOLS

Acronyms:

AC	Alternating Current
ACCU	Audio Central Control Unit
ADI	Attitude Director Indicator
ADTA	Air Data Transducer Assembly
AF	Air Force
ALT	Approach and Landing Test
AMI	Airspeed Mach Indicator
APU	Auxiliary Power Unit
ASA	Aero Surface Servo Amplifier
ATC	Air Traffic Control
AVVI	Altitude Vertical Velocity Indicator
BL	Baseline
BPS	Bits per second
BRM	Baseline Reference Mission
COAS	Coarse Optical Alignment Sight
CRT	Cathode Ray Tube
CTPD	Crew Training and Procedures Division
C & W	Caution and Warning
DACBU	Data Acquisition and Control Buffer Unit
DC	Direct Current
DDU	Display Decoder Driver Unit
DFI	Development Flight Instrumentation
DOD	Department of Defense
EEL	Electrical Equipment List
EPS	Electrical Power System
ET	External Tank
EVA	Extravehicular Activity
EVLSS	Extravehicular Life Support System
FA	Flight Aft
FCD	Flight Control Division
FCP	Fuel Cell Power/Plant
FDM	Frequency Division Multiplexer
FF	Flight Forward

FM	Frequency Modulation
GET	Ground Elapsed Time
GH2	Gaseous Hydrogen
GMT	Greenwich Mean Time
GNC	Guidance, Navigation, & Control
GO2	Gaseous Oxygen
GPC	General Purpose Computer
GSE	Ground Support Equipment
HSI	Horizontal Situation Indicator
ICOM	Intercom
IL	Integral Lighting
IMU	Inertial Measurement Unit
IVA	Intravehicular Activity
KBS	Kilobits per second
LA	Launch Aft
LF	Launch Forward
LG	Landing Gear
LH2	Liquid Hydrogen
LO2	Liquid Oxygen
LP	Left Pod (OMS)
L/O	Liftoff
MDM	Multiplexer/DeMultiplexer
MEC	Master Event Controller
MECO	Main Engine Cutoff
MET	Mission Elapsed Time
MLG	Main Landing Gear
MMH	Monomethyl Hydrazine
MPS	Main Propulsion System
MSBLS	Microwave Scan Beam Landing System
MSS	Mission Specialist Station
MTU	Master Timing Unit
NASA	National Aeronautics and Space Administration
NLG	Nose Landing Gear
NSP	Network Signal Processor
N/A	Not Applicable
N204	Nitrogen Tetroxide
OAI	Operational Aft Instrumentation
OFI	Operational Flight Instrumentation
OFT	Orbital Flight Test
OI	Operational Instrumentation
OMS	Orbital Maneuvering System
OOS	Orbit-to-Orbit Shuttle
O/B	Overboard
P	Pressure
PBD	Payload Bay Door

PCA	Power Controller Assembly
PCL	Power Control List
PCM	Pulse-Code Modulation
PCM	Power Control Mission
PDI	Payload Data Interleaver
PDL	Power Down List
PF	Payload Forward
PIC	Pyro Initiator Controller
PLB	Payload Bay
PLM	Payload Management
PM	Phase Modulation
PMS	Performance Monitoring System
PSS	Payload Specialist Station
P/L	Payload
RCS	Reaction Control System
RDR	Radar
RF	Radio Frequency
RGA	Rate Gyro Assembly
RHC	Rotational Hand Controller
RI	Rockwell International
RJDA	Reaction Jet Driver Aft
RJDF	Reaction Jet Driver Forward
RP	Right Pod (OMS)
RPTA	Rudder Pedal Transducer Assembly
SBTC	Speed Brake Thrust Control
SEPS	Shuttle Electrical Power System Analysis Computer Program
SOV	Shutoff Valve
SPI	Surface Position Indicator
SPM	Samples per Minute
SR	Stoproll
SRB	Solid Rocket Booster
SSME	Space Shuttle Main Engine
STDN	Spacecraft Tracking and Data Network
TACAN	Tactical Air Navigation
TBD	To Be Determined
TD	Touchdown
TDRS	Tracking and Data Relay Satellite
THC	Translational Hand Controller
TM	Telemetry
TV	Television
TVC	Thrust Vector Control
VA	Volt Amperes

4.0 EPS DATA BASE

The EPS data base consists of an electrical equipment list, activity blocks, and mission time lines. The electrical equipment list defines the orbiter equipment complement. The activity blocks specify the use of this equipment in a manner providing a high degree of flexibility for construction of equipment utilization time lines for mission analyses. The time lines are mission unique and define how the activity blocks are used to analyze specific missions.

4.1 Electrical Equipment List

Volume I of this document contains an electrical equipment list baselined to correspond with that of orbiter 103. (ref. 2). This list was used in the performance of the shuttle baseline reference missions EPS consumables analyses contained in reference 3. The list contained herein is a composite of orbiter 101, 102, and 103 equipment. The orbiter 101 equipment list was taken from the OV101 EEL of February 7, 1975 (ref. 4). The orbiter 102 equipment list was taken from the OV102 EEL of December 17, 1974 (ref 5). The orbiter 103 equipment list corresponds to the OV103 EEL of January 27, 1975 (ref. 2).

4.2 Equipment Utilization

Appendix A (table A-I) contains a tabulation of space shuttle electrical equipment. The general function and intended use of each component type is described, and the analysis usage of each component is defined. The FUNCTION and USAGE of this equipment was taken primarily from usage information provided by the Flight Control Division (ref. 6). Where this information was incomplete or inadequate, Rockwell-International Usenotes were used as a supplement (ref. 7). No attempt was made to amplify, or paraphrase, the usage data available, except as necessary to conform to the context of the table.

The ANALYSIS USAGE of specific components was derived from the intended usage data as stated above. Every attempt was made to use the electrical equipment as it will be used in actual flight, while meeting the objectives of standardization, simplification, flexibility, utility, and ease of interpretation.

5.0 ASSUMPTIONS AND LIMITATIONS

Certain decisions and assumptions were necessary in the formulation of the EPS data base. These decisions and assumptions impose limitations on the usage of the data base and the interpretation of data derived therefrom.

Enumerated below are some of the decisions and assumptions that were made in formulating the EPS data base, along with some background information relative to the data base development.

1. This volume has been written to be current with the latest available space shuttle equipment lists and uses Rockwell-International EEL ID numbers without manipulation.

2. Equipment effectivities contained herein have been determined from available information and are intended to be used only for purposes of EPS consumables analyses.

3. ID numbers are somewhat fluid from EEL-to-EEL and from component-to-component. For purposes of this document;

   a. Components bearing effectivities of 3, 4, 6 or 7 reflect the Power Control List of reference 8 (table 4.5.6-1).

   b. No attempt has been made to draw all distinctions between the OV102 and OV103 equipment lists. Revisions to OV102/OV103 common equipment, as reflected in reference 2, are assumed to also apply to OV102.

   c. An attempt has been made to identify all equipment differences between OV101 and OV103. Where this could not be accomplished with relative certainty, both listings are given. Minor differences are handled by explanatory notes.

4. Equipment usage, for purposes of EPS Consumables analysis, is directed primarily toward when equipment is energized, rather than how it is used when it is energized.

5. The powerdown list represented by the PDL column defines equipment usage requirements for analyzing on-orbit contingency periods. Equipment usage, as contained herein, is representative of the 96-hour rescue analysis of reference 9.

6. The primary source of usage information was that provided by the Flight Control Division. Where conflicts existed between FCD usage data and other sources, the FCD data was used.

7. Where FCD usage information was incomplete or inadequate, Rockwell-International Usenotes were utilized as a supplement (ref. 7).

8. Where no usage information was available, Rockwell-International analyses were utilized as a supplement (see refs. 10 and 11).

9. Where all usage sources proved deficient, specific equipment usage was determined by telecon with FCD and CTPD personnel.

10. Where no usage information of any kind could be obtained, no analysis usage was specified.

11. Components which could not be identified as being contained in the baseline EEL of reference 12, were considered as new components. Analysis usage of this equipment was determined where possible, but it has not been used in analyses to date (4/1/75).

12. In general, where component usage was related to a specific mission time and/or event (i.e. ET Jettison, 70,000 feet, 200 Knots, Final Approach, etc.), the relative timing was derived from BRM 2 (reference 13).

13. During Ascent, equipment changing state (i.e. on/off or off/on) prior to MECO was related to liftoff. Equipment changing state after MECO was related to MECO. During Descent, equipment changing state prior to 400,000 feet was related to Deorbit. Equipment changing state after 400,000 feet was related to 400,000 feet.

14. The quality and content of available usage information varied widely from component to component, and in many cases no information was available. Numerous assumptions were necessary in order to define the analysis usage of all components.

For example, where usage information was not explicit enough to define exact on/off times, the following assumptions were made:

a. For long duration missions, equipment which changes status in going from ascent to on-orbit is assumed to change state halfway through a one hour orbital configuration period commencing at insertion.

b. For short duration missions, that equipment which is required only during ascent is powered down after insertion. All other equipment remains on.

c. For long duration missions, equipment which changes status in going from on-orbit to descent is assumed to change state halfway through a deorbit prep period commencing one hour prior to deorbit

d. For short duration missions, that equipment which is required only for descent is turned on 15 minutes prior to the deorbit burn.

15. For the most part, the available usage information was directed toward extended on-orbit missions and focused on actual usage rather than power consumption. It was, therefore, necessary to make numerous assumptions in order to define analysis usage for short missions of the BRM 3A/3B type (ref. 14) and ALT flights similar to that of reference 15.

For example, usage information for the CRT display units states that four are on from vehicle powerup to insertion, for all powered orbiter phases, and for entry, and that two are on during orbital operations. For purposes of analyzing BRM's 3A and 3B, however, all CRT display units were assumed to remain on from power transfer internal until power transfer external.

16. ALT usage, as described herein, is for the ALT consumables sizing mission rather than for an actual ALT flight involving an orbiter separation and landing.

17. The following assumptions were made with regard to preflight and postflight ground operations:

a. OV101 (aborted ALT flight)

Preflight	-	Pwr Xfr Int 1.0 hrs prior to takeoff
Stoproll	-	TD plus 3.0 min
Postlanding	-	Partial equipment powerdown at stoproll plus 12.0 min; Pwr Xfr Ext at Stoproll plus 27.0 min

b. OV103 (orbital flight)

Preflight	-	Pwr Xfr Int at 10.0 min prior to liftoff
Stoproll	-	TD plus 2.0 min
Postlanding	-	Partial powerdown at stoproll plus 6.5 min; Pwr Xfr Ext at stoproll plus 13.0 min

18. Load data contained herein pertains to component usage within the SEPS EPS distribution model, reference 9. The model is not currently configured to accept all possible bus assignments. For purposes of analysis it was, therefore, necessary to assign some components to buses other than those specified in the Bus ID column of table A-I. These buses and bus ID combinations are as follows:

Specified Bus	Assigned Bus
D1L2/D2L2	D1L2
D1R2/D2R2	D1R2
D1S2/D2S2/D3S2	D1S2
D1E1	D1E2
D1E2/D3E2	D1E2
D2E1	D2E2
D3E1	D3E2
D1G1	D1F1
D1G2	D1F2
D1G2/D2G2	D1F2/D2F2
D2L2/D3L2	D2L2
D1L2/D2L2/D3L2	D2L2
D1M3	D1M2
D2R2/D3R2	D2R2
D2G1	D2F1
D2G2	D2F2
D1M2/D2M2	D2M2
D1L2/D3L2	D3L2
D1R2/D3R2	D3R2
D1R2/D2R2/D3R2	D3R2
D3G1	D3F1
D3G2	D3F2
D3W2	D2W4

Note: Virgule (/) indicates dioded load

19. Available data was insufficient to distinguish with certainty between components which are switchable between buses and components which are shared between buses. The following assumptions were made:

a. Loads which were identified as switchable in reference 12, were considered to be switchable.

b. Loads which were identified as being shared between buses in reference 12, were considered to be shared.

Explanatory notes were provided in table A-I for loads requiring additional assumptions.

6.0 UPDATE AND CONTROL PROCEDURES

The EPS data base is updated in accordance with the requirements of reference 1. The contents of this document will be revised internally to reflect the EPS data base. Updating and maintaining this data will be controlled by the Consumables Analysis Section (CAS) of the MPAD. Revisions to this document will periodically be published and distributed to the users.

6.1 Electrical Equipment List

The electrical equipment list contained herein is a composite of the OV101, OV102, and OV103 equipment lists obtained from Rockwell-International. This list will be maintained internally to be current with the latest documentation. Revisions will be published and distributed periodically, or as required to reflect major design changes.

6.2 Equipment Utilization

The equipment utilization data contained herein reflects the usage of orbiter electrical equipment in the performance of EPS consumables analyses. Updates to this data will be made as a result of recommendations from any individual or organization having a knowledge of the operational procedures of the orbiter subsystems. Please submit comments and recommendations to the Consumables Analysis Section of the MPAD (ext. 3458).

REFERENCES

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APPENDIX A

ELECTRICAL EQUIPMENT USAGE

FOR

EPS CONSUMABLES ANALYSIS

APPENDIX A

ELECTRICAL EQUIPMENT USAGE

FOR EPS CONSUMABLES ANALYSIS

The following guidelines should be used in interpreting the data contained within this appendix:

1. ID No/Equipment Description

XX	(2 Characters)	- Subsystem Number
XXXX	(4 Characters)	- Component Type
XXXXXXXX	(8 Characters)	- A specific component or group of components
(XX)		- Number of components included within a group if other than one (used in computing total power)

2. EFF (Effectivity)

   1 - OV101

   2 - OV102

   3 - OV103

   4 - All

   5 - OV101 & OV102

   6 - OV101 & OV103

   7 - OV102 & OV103

   8 - Kit

   9 - TBD

   NOTE: Effectivity as derived from available data and intended for analysis usage only

3. Total Power (Watts) - Total power consumed by all components included within the specific component ID number when operated at 28VDC

4. Bus ID

1st Power Type

A = AC
D = DC

2nd Main Bus Identifiers

1 = Main DC Bus A
2 = Main DC Bus B
3 = Main DC Bus C
4 = Payload Direct from fuel cell 3

3rd Sub-Bus Assignment

F = Forward Local DC Bus
M = Midbody Local DC Bus
A = Aft Local DC Bus
E = Essential DC Bus
D = DFI DC Bus
L = LH DC Panel
R = RH DC Panel
O = OOS CB Panel
P = Payload Specialist Station
S = Mission Specialist Station
T = ALT Panel
W = Payload Bus
G = General (any other direct loads)

4th Load Classification

1 = Direct to ground
2 = Return to ground
3 = Inverter or AC
4 = Payload
5 = Other

5th AC Phase Description

A, B, or C = 1 Phase
For 2Ø or 3Ø loads, letters consecutive

Notes: a. Asterisks indicate assigned positions of switchable loads

b. Multiple bus designations without asterisks indicate dioded loads

c. A or D in Bus ID column indicates that bus designation is unknown

5. Function and Usage

Function: - The general function of components of this type

Usage: - The intended and/or expected usage of components of this type, with emphasis on when components are energized

Analysis Usage:

Long Flights - Specific component usage in the performance of consumables analyses on missions similar to BRM's 1 and 2

Short Flights - Specific component usage in the performance of consumables analyses on missions similar to BRM's 3A and 3B

ALT Flights - Specific component usage in the performance of consumables analyses on missions similar to the ALT consumables sizing mission

6. PDL - A powerdown list identifying equipment to be used in consumables analysis of contingency situations similar to the 96-hour rescue

B - Base Load
E - Food Management
R - Rendezvous
S - Periodic Status Check
T - Crew Transfer
W - Waste Management

7. Activity Blocks - EPS Data Base Activity Blocks to which components are assigned:

101 - Mission Common (GSE-GSE)
102 - Ascent (GSE-Insertion)
103 - Orbital Common 1 (Insertion-Deorbit)
104 - Orbital Common 1 (Orb Config-Deorbit Prep)
105 - Orbital Modes
106 - Descent (Deorbit-GSE)
107 - Descent (Deorbit-Stoproll)
150 - DFI (ALT/OFT)
160 - Orbital Common 2 (Insertion-Deorbit)
161 - Orbital Common 2 (Orb Config-Deorbit Prep)
201 - Ascent (GSE-MECO)
202 - Ascent (MECO-Insertion)
210 - Prelaunch
301 - OMS
302 - RCS (Automatic)
303 - RCS (Manual)
304 - Post Burn
305 - RCS (Attitude Control)
350 - OMS (Insertion)
401 - Orbital Configuration 1
402 - Delta Day
403 - Stationkeeping
404 - IMU Alignment
405 - Rendezvous
406 - Docking
407 - Undocking
408 - IVA
409 - EVA
410 - Post EVA
411 - TV (Crew)
412 - Eat
413 - Waste Management
414 - Sleep (Pre and Post)
415 - Fuel Cell Purge
416 - Deorbit Prep 1
417 - Payload Bay Doors (Open)
418 - Payload Bay Doors (Close)
460 - Orbital Configuration 2
461 - Deorbit Prep 2
501 - APU (Ascent)
502 - Descent (Deorbit-400,000 Feet)
503 - Descent (400,000 feet - Stoproll)
504 - Postlanding (Stoproll - GSE)
601 - Cabin Heaters
602 - Heaters 1

603 - Heaters 2
604 - Heaters 3A
605 - Heaters 3B
701 - Payload Interface
702 - Payload Deployment
703 - Payload Retrieval
710 - Payload Operations
720 - Payload Power
730 - Mission 3A Peculiar
740 - Mission 3B Peculiar
750 - Mission 1 Peculiar
760 - Mission 2 Peculiar
951 - Preflight-ALT
952 - Navigation 1-ALT
953 - Navigation 2-ALT
954 - Navigation 3-ALT
955 - Backup Voice Comm-ALT
956 - BUFC-ALT
957 - Flight Controls 1-ALT
958 - Flight Controls 2-ALT
959 - Flight Controls 3-ALT
960 - DFI - ALT
961 - Wideband DFI - ALT
962 - OFI - ALT
963 - Mission Common-ALT (GSE - Stoproll)
964 - Mission Common-ALT (GSE-Powerdown)
965 - Postlanding-ALT (Stoproll - Powerdown)
966 - Backup Computers - ALT
967 - F/C Startup and Idle-ALT

Note: Refer to Volume I for definitions, reference 1.

8. Load - SEPS EPS distribution system Load Numbers to which components are assigned

1 - D2L1
2 - D1L2 (includes D1L2/D2L2)
3 - D1R1
4 - D1R2 (includes D1R2/D2R2)
5 - D1S1 or D1P1
6 - D1S2 or D1P2 (includes D1S2/D2S2/D3S2)
7 - D1E2 (includes D1E2/D3E2 and D1E1)
8 - D1F1 (includes D1G1)
9 - D1F2 (includes D1G2)

10 - (INV1)
11 - D1F1/D2F1 or D1F2/D2F2 (includes D1G2/D2G2)
12 - D1M1 or D1M2 (includes D1M3)
13 - D1A1
14 - D1A2
15 - D1A1/D2A1 or D1A2/D2A2
16 - D2L1
17 - D2L2 (includes D2L2/D3L2 and D1L2/D2L2/D3L2)
18 - D2R1
19 - D2R2 (includes D2R2/D3R2)
20 - D2S1 or D2P1
21 - D2S2 or D2P2 (includes D2S2/D3S2)
22 - D2E2 (includes D2E1)
23 - D2F1 (includes D2G1)
24 - D2F2 (includes D2G2)
25 - (INV2)
26 - D2F1/D3F1 or D2F2/D3F2
27 - D2M1 or D2M2 (includes D1M2/D2M2)
28 - D2A1
29 - D2A2
30 - D2A1/D3A1 or D2A2/D3A2
31 - D3L1
32 - D3L2 (includes D1L2/D3L2)
33 - D3R1
34 - D3R2 (includes D1R2/D3R2 and D1R2/D2R2/D3R2)
35 - D3S1 or D3P1
36 - D3S2 or D3P2
37 - D3E2 (includes D3E1)
38 - D3F1 or D3D1 (includes D3G1)
39 - D3F2 or D3D2 (includes D3G2)
40 - (INV3)
41 - D3F1/D1F1 or D3F2/D1F2
42 - D3M1 or D3M2
43 - D3A1
44 - D3A2
45 - D3A1/D1A1 or D3A2/D1A2
46 - D1F1/D2F1/D3F1 or D1F2/D2F2/D3F2
47 - D1A1/D2A1/D3A1 or D1A2/D2A2/D3A2
48 - D2W4 or D4W4 (includes D3W2)
49 - D1A4
50 - D2A4
51 - (Charger)
52 - A1F3ABC
53 - A2F3ABC

54 - A3F3ABC
61 - A1F3A
62 - A1F3B
63 - A1F3C
64 - A2F3A
65 - A2F3B
66 - A2F3C
67 - A3F3A
68 - A3F3B
69 - A3F3C

Note: XX = Component has been assigned to a bus (load) other than that indicated in the Bus ID columns

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO
01 GUIDANCE, NAVIGATION, & FLIGHT CONTROLS							
0101 INERTIAL MEAS UNITS (IMU)				FUNCTION: Provides rate and attitude data for nav & att cntl (TVC, RCS, ELEVON RUDDER) and for ADI drive USAGE: Three operating for ascent & descent; two operating one standby for OMS mnvrs, when in proximity of another vehicle, and during EVA; one operating, two standby for remainder of orbital ops; requires 30 min warmup if off; 25 min rq'd to align ANALYSIS USAGE:			
01010100 IMU #1 - OPERATE	4	180.0	D2F2 D1F2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same NOTE - 160.0 watts (ALT)	-	101,957	11
01010110 IMU #1 - STANDBY	4	75.0	D2F2 D1F2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - 55.0 watts (ALT)	-	-	11
01010200 IMU #2 - OPERATE	4	180.0	D3F2 D2F2	LONG FLIGHTS - On pwr xfr int to insertion +30 min; on 30 min prior to deorbit tc pwr xfr ext; on for OMS and RCS mnvrs until post burn power down SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - 160.0 watts (ALT)	-	102,106,160, 301,302,303, 304,401,416, 958	26

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
01010210 IMU #2 - STANDBY	4	75.0	D3F2 D2F2	LONG FLIGHTS - On from insertion +30 minutes to deorbit -30 minutes, except when IMU #2 is in operate SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - 55.0 watts (ALT)	-	105,401,416	26
01010300 IMU #3 - OPERATE	4	180.0	D1F2 D3F2	LONG FLIGHTS - On from pwr xfr int to insertion +30 minutes; on from 30 minutes prior to deorbit to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - 160.0 watts (ALT)	-	102,106,160, 401,416,959	41
01010310 IMU #3 - STANDBY	4	75.0	D1F2 D3F2	LONG FLIGHTS - On from insertion +30 minutes to deorbit -30 minutes SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - 55.0 watts (ALT)	-	104,401,416	41
0103 STAR TRKRS & LT SHLDS				FUNCTION: Provides line of sight data to a known star to the IMU for alignment. Also used as a rendezvous aid USAGE: Units are off until first orbital IMU alignment. Startrackers are warmed up for 15 min and operated for 25 minutes during alignments. Only one is required for alignment.			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
01030100 STAR TRKR & LT SHLD #1	7	23.0	D1R2	LONG FLIGHTS - On 15 minutes prior to IMU align thru alignment; on for duration of rendezvous SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	404,405	4
01030200 STAR TRKR & LT SHLD #2	7	23.0	D2R2	LONG FLIGHTS - On 15 minutes prior to IMU align thru alignment SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	404	19
01030300 STAR TRKR & LT SHLD #3	7	23.0	D3R2	LONG FLIGHTS - Same as 01030200 SHORT FLIGHTS - Same as 01030200 ALT FLIGHTS - N/A	-	404	34
0104 AIR DATA XDCR ASSY's (ADTA)				FUNCTION: Receive press, temp, & angle of attack data from air data probes; processes data and furnishes it to computers for flight control, navigation, and air data display; one assy will supply all required data. USAGE: The four ADTA's are turned on, warmed up and tested 15 min prior to deorbit, and remain on thru stoproll. ANALYSIS USAGE:			
01040100 ADTA #1	4	54.0	D1R2	LONG FLIGHTS - On 15 min prior to deorbit until 6.5 minutes after stoproll	-	107,416,461, 504,957	4

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - 45.0 watts (ALT)			
01040200 ADTA #2	4	54.0	D2R2	LONG FLIGHTS - Same as 01040100	-	107,416,461, 504,958	19
				SHORT FLIGHTS - Same as 01040100			
				ALT FLIGHTS - Same as 01040100			
				NOTE - 45.0 watts (ALT)			
01040300 ADTA #3	4	54.0	D3R2	LONG FLIGHTS - Same as 01040100	-	107,416,461, 504,959	34
				SHORT FLIGHTS - Same as 01040100			
				ALT FLIGHTS - Same as 01040100			
				NOTE - 45.0 watts (ALT)			
01040400 ADTA #4	4	54.0	D3R2	LONG FLIGHTS - Same as 01040100	-	107,416,461, 504,959	34
				SHORT FLIGHTS - Same as 01040100			
				ALT FLIGHTS - Same as 01040100			
				NOTE - 45.0 watts (ALT)			
0105 RATE GYRO ASSYS (RGA)				FUNCTION:			
				The RGA's operate in conjunction with the attitude direction indicator and provide vehicular angular rate data to the computers for orbiter stabilization and control			
				USAGE:			
				Three RGA's on from prelaunch thru insertion; two RGA's on for OMS/RCS mnvrs and when in proximity of			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				another vehicle; one on continuously on-orbit; three on from deorbit -5 minutes thru stoproll (RGA's require 5 minutes warmup)			
				ANALYSIS USAGE:			
01050100 RGA - AFT #1	4	23.0	D1A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	R	101,957	14
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			
01050200 RGA - AFT #2	4	23.0	D2A2	LONG FLIGHTS - On from pwr xfr int until 30 min after insertion; on 5 min prior to OMS/RCS mnvrs thru post burn power-down; on 5 min prior to thru end of stationkeeping, docking, and undocking; on 5 min prior to deorbit until 6.5 minutes after stoproll	-	102,107,160, 301,302,303, 304,401,403, 406,407,416, 504,958	29
				SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll			
				ALT FLIGHTS - On from pwr xfr int until pwr xfr ext			
01050300 RGA - AFT #3	4	23.0	D3A2	LONG FLIGHTS - On from pwr xfr int until 30 min after insertion; on 5 min prior to deorbit until 6.5 minutes after stoproll	-	102,107,160, 401,416,504, 959	44
				SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll			
				ALT FLIGHTS - On from pwr xfr int until pwr xfr ext			
0108 ASCENT TVC DRVRS				FUNCTION:			
				Provides engine gimbal commands for SRB & MPS engines			
				USAGE:			
				On from countdown and launch thru insertion			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
01080100 ASCENT TVC DRVR #1 - AFT	7	94.5	D2A2 D1A2	LONG FLIGHTS - On from pwr xfr int to insertion SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	102	15
01080200 ASCENT TVC DRVR #2 - AFT	7	94.5	D3A2 D2A2	LONG FLIGHTS - Same as 01080100 SHORT FLIGHTS - Same as 01080100 ALT FLIGHTS - N/A	-	102	30
01080300 ASCENT TVC DRVR #3 - AFT	7	94.5	D1A2 D3A2	LONG FLIGHTS - Same as 01080100 SHORT FLIGHTS - Same as 01080300 ALT FLIGHTS - N/A	-	102	45
0109 AERO SURF SRVO AMPLS (ASA)				FUNCTION: ASA's supply power to the OMS gimbal drivers. One assembly provides power conversion switching for one orbiter RGA, two sets of SRB RGA's, one accelerometer assembly, one reaction jet driver, one TVC driver, one set of aero surface position and delta P Xducers, two sets of OMS position Xducers, and drives the servo actuators for the six orbiter aero surfaces. USAGE: On from prelaunch through orbit insertion; all four activated (TBD) minutes prior to the deorbit mnvr and remain on thru postlanding.			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
01090100 ASA #1 - AFT	4	116.0	D2A2 D1A2	LONG FLIGHTS - On from pwr xfr int until 30 minutes after insertion; on 30 seconds prior to deorbit until 6.5 minutes after stoproll. SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll ALT FLIGHTS - On from pwr xfr int until pwr xfr ext	-	102,107,160, 401,416,504, 957	15
01090200 ASA #2 - AFT	4	116.0	D2A2 D3A2	LONG FLIGHTS - Same as 01090100 SHORT FLIGHTS - Same as 01090100 ALT FLIGHTS - Same as 01090100	-	102,107,160, 401,416,504, 958	30
01090300 (2) ASA #3 & #4 - AFT	4	232.0	D3A2 D1A2	LONG FLIGHTS - Same as 01090100 SHORT FLIGHTS - Same as 01090100 ALT FLIGHTS - Same as 01090100	-	102,107,160, 401,416,504, 959	45
0111 REAC JET DRVRS - FWD (RJDF)				FUNCTION: Control power to the propellant solenoids of the large forward RCS jets and the vernier forward RCS jets as commanded by the GNC computers; supply status data to the computers; each RJDF controls eight RCS jets USAGE: On 30 to 40 sec prior to ET Sep; on continuously after ET Sep; used during orbital operations for all RCS firings ANALYSIS USAGE:			
01110100 RJDF #1	7	54.5	D2F2 D1F2	LONG FLIGHTS - On 17 seconds prior to MECO until deorbit	R	104,160,202, 401,416	11

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same ALT FLIGHTS - N/A			
01110200 RJDF #2	7	54.5	D1P2 D3F2	LONG FLIGHTS - Same as 01110100 SHORT FLIGHTS - Same as 01110100 ALT FLIGHTS - N/A	-	104,160,202, 401,416	41
0112 REACT JET OMS DRVRS - AFT				FUNCTION: Control power to the propellant solenoids of the large aft RCS jets, the vernier aft RCS jets, and four OMS engine propellant control valve solenoids as commanded by the GNC computers; supply status data to the computers USAGE: Used during ET jett; used during orbital operations for all OMS and RCS firings during transfer or attitude mnvrs; shut down any time after descent to 70,000 feet. ANALYSIS USAGE:			
01120100 REACT JET OMS DRVR - AFT #1	7	146.6	D2A2 D1A2	LONG FLIGHTS - On 17 seconds prior to MECO until descent to approx 70,000 feet SHORT FLIGHTS - Same ALT FLIGHTS - N/A	R	103,202,502, 503	15
01120200 REACT JET OMS DRVR - AFT #2	7	146.6	D3A2 D1A2	LONG FLIGHTS - Same as 01120100 SHORT FLIGHTS - Same as 01120100 ALT FLIGHTS - N/A	-	103,202,502, 503	45

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0114 ACCELEROMETER ASSYS - FWD				FUNCTION: Operate in conjunction with the RGA's and provide vehicle normal and lateral acceleration feedback to the computers for orbiter stabilization and control USAGE: On from prelaunch to orbit insertion; on during OMS mnvrs; on 5 minutes prior to deorbit until anytime after stoproll; units require 5 minutes warmup ANALYSIS USAGE:			
01140100 ACCELEROMETER ASSY-FWD #1	4	2.7	D1R2	LONG FLIGHTS - On from pwr xfr int until 30 min after insertion; on 5 min prior to OMS & RCS burns until post burn power down; on from 5 minutes prior to deorbit until 6.5 minutes after stoproll SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll ALT FLIGHTS - On from pwr xfr int until pwr xfr ext	-	102,107,160, 301,302,303, 304,401,416, 504,957	4
01140200 ACCELEROMETER ASSY-FWD #2	4	2.7	D2R2	LONG FLIGHTS - Same as 01140100 SHORT FLIGHTS - Same as 01140100 ALT FLIGHTS - Same as 01140100	-	102,107,160 301,302,303, 304,401,416, 504,958	19
01140300 ACCELEROMETER ASSY-FWD #3	4	2.7	D3R2	LONG FLIGHTS - Same as 01140100 SHORT FLIGHTS - Same as 01140100 ALT FLIGHTS - Same as 01140100	-	102,107,160, 301,302,303, 304,401,416, 504,959	34
0116 TRANS HAND CNTLRS (THC)				FUNCTION: Provides three axis translation control of OMS and RCS with a single T-shaped grip.			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On for all powered phases (boost, orbital mnvrs, plane changes, docking, separation, and entry to stoproll)			
				ANALYSIS USAGE:			
01160100 THC RH	7	3.8	D2R2 D1R2 D3R2	LONG FLIGHTS - On from MECO to insertion; on 30 seconds prior to OMS burns until end of burn	-	202,301	34
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			
01160200 THC LH	7	3.8	D1L2 D2L2 D3L2	LONG FLIGHTS - Same as 01160100	-	202,301	17
				SHORT FLIGHTS - Same as 01160100			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			
0117 ROT HAND CNTLRS (RHC)				FUNCTION:			
				Used for three axis aerodynamic control (roll, pitch, and yaw). Uses RCS and control surfaces to control orbiter rotation during on-orbit mnvrs and manual descent.			
				USAGE:			
				Activated for liftoff, ascent, and used during ET/SRB Sep mnvrs to insertion; on for RCS & thrust vector activities; on for deorbit to stoproll (RI)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
01170100 RHC RH	4	7.1	D2R2 D1R2 D3R2	LONG FLIGHTS - On from pwr xfr int until 15 minutes after insertion; on 30 seconds prior to rotation mnvrs until post burn power down; on for station-keeping, IMU alignment, docking, and undocking; on 30 seconds prior to deorbit until descent to 400,000 feet SHORT FLIGHTS - On from pwr xfr int until descent to 400,000 feet ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - Assumed to be dioded load	R	102,160,303, 304,401,403, 404,406,407, 416,502,964	34
01170200 RHC LH	4	7.1	D2L2 D1L2 D3L2	LONG FLIGHTS - Same as 01170100 SHORT FLIGHTS - Same as 01170100 ALT FLIGHTS - Same as 01170100 NOTE - Assumed to be dioded load	-	102,160,303, 304,401,403, 404,406,407, 416,502,959	17
01170300 RHC PSS	7	7.1	D2S2 D1S2 D3S2	LONG FLIGHTS - Same as 01170100 SHORT FLIGHTS - Same as 01170100 ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	102,160,303, 304,401,403, 404,406,407, 416,502	6
0118 RUDR PED XDCR ASSYS (RPTA)				FUNCTION: Provides the capability to command manual yaw axis control signals into the flight control system during atmospheric flight; provides rudder control and nosewheel steering			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				Powered up at deorbit checkout			
				ANALYSIS USAGE:			
01180100 RPTA RH	4	1.3	D2R2 D1R2 D3R2	LONG FLIGHTS - On from pwr xfr int until one minute after insertion; on from 30 minutes prior to deorbit until pwr xfr ext	-	102,106,160, 401,416,963	34
				SHORT FLIGHTS - On from pwr xfr int until pwr xfr ext			
				ALT FLIGHTS - On from pwr xfr int to stoproll			
				NOTE - Assumed to be dioded load			
01180200 RPTA LH	4	1.3	D2L2 D1L2 D3L2	LONG FLIGHTS - Same as 01180100	-	102,106,160, 401,416,959	17
				SHORT FLIGHTS - Same as 01180100			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - Assumed to be dioded load			
0119 SPD BRK THRUST CNTLS (SPTC)				FUNCTION:			
				Provides variable control of thrust level to limit G-Load increase and engine burn accuracy			
				USAGE:			
				Used during launch and ascent; on from deorbit to stoproll			
				ANALYSIS USAGE:			
01190100 SBTC RH	4	2.5	D2R2 D1R2 D3R2	LONG FLIGHTS - On from pwr xfr int until 15 minutes after insertion; on from 30 minutes prior to deorbit until pwr xfr ext	-	102,106,160, 401,416,964	34

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - On from pwr xfr int until pwr xfr ext			
				ALT FLIGHTS - On from pwr xfr int until pwr xfr ext			
				NOTE - Assumed to be dioded load			
01190200 SBTC LH	4	2.5	D2L2 D1L2 D3L2	LONG FLIGHTS - Same as 01190100	-	102,106,160, 401,416,959	17
				SHORT FLIGHTS - Same as 01190100			
				ALT FLIGHTS - Same as 01190100			
				NOTE - Assumed to be dioded load			
0120 AIR DATA COMPUTER (BUPC)				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
01200000 AIR DATA COMPUTER (BUPC)	1	100.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - N/A	-	956	52
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
02 COMMUNICATIONS							
0201 B&W TV MONITORS				FUNCTION: Used by crew to monitor any of five TV camera outputs (one camera at each end of payload bay, one per manipulator arm, one in crew compartment) USAGE: Used for monitoring payload or crew activities; may be used for monitoring docking, separation, EVA's etc. ANALYSIS USAGE:			
02010100 B&W TV MONITOR #1	7	20.0	D1P2	LONG FLIGHTS - On for docking, undocking, EVA,crew TV, P/L operations, P/L deployment, P/L retrieval, and P/L refurbishment; 10% use during IVA SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	406,407,408, 409,411,702, 703,710	6
02010200 B&W TV MONITOR #2	7	20.0	D2S2	LONG FLIGHTS - On for EVA, P/L operations, P/L deployment, and payload retrieval SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	409,702,703, 710	21
0202 TV REMOTE CONTROL				FUNCTION: Provides crew capability to remotely control B&W TV cameras lens focus and light. USAGE: Used with four payload bay cameras			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E P F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
02020000 TV REMOTE CONTROL	7	5.0	D2S2	LONG FLIGHTS - On for EVA, payload operations, payload deployment, paylcad retrieval SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	409,702,703, 710	21
0203 TV CAMERA COLOR & MONITOR				FUNCTION: Used to transmit flight crew activities; TV camera is portable USAGE: Used during orbital operations to transmit flight crew activities; may be used to transmit docking and separation for public/NASA information; may be used to observe and transmit payload handling and manipulator payload operations			
				ANALYSIS USAGE:			
02030000 TV CAMERA COLOR & MONITOR	7	20.0	D2S2	LONG FLIGHTS - On for docking, undocking, IVA, EVA, and crew TV; 10% use during IVA SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	406,407,408, 409,411	21
0204 TV CAMERAS B&W				FUNCTION: Provides the capability to monitor and observe payload bay activities; one camera at each end of payload bay, one at the end of each manipulator arm USAGE: Used for transmitting payload handling, docking, separation, EVA's, etc.			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
02040100 TV CAMERA B&W #1	7	12.5	D1S2	LONG FLIGHTS - On for EVA's, payload deployment, payload retrieval, and payload operations	-	409,702,703, 710	6
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02040200 TV CAMERA B&W #2	7	12.5	D1S2	LONG FLIGHTS - Same as 02040100	-	409,702,703, 710	6
				SHORT FLIGHTS - Same as 02040100			
				ALT FLIGHTS - N/A			
02040300 TV CAMERA B&W #3	7	12.5	D2S2	LONG FLIGHTS - On for payload deployment, payload retrieval, and payload operations	-	702,703,710	21
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02040400 TV CAMERA B&W #4 (KIT)	8	12.5	D2S2	LONG FLIGHTS - Same as 02040300	-	702,703,710	21
				SHORT FLIGHTS - Same as 02040300			
				ALT FLIGHTS - N/A			
0205 PAN TILT ASSYS				FUNCTION:			
				Provide remote pointing and scanning control of the cameras mounted at each end of the payload bay			
				USAGE:			
				powered whenever associated cameras are used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
02050100 PAN TILT ASSY #1	7	19.3	D1P2	LONG FLIGHTS - On for EVA's, payload deployment, payload retrieval, and payload operations SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	409,702,703, 710	6
02050200 PAN TILT ASSY #2	7	19.3	D2S2	LONG FLIGHTS - Same as 02050100 SHORT FLIGHTS - Same as 02C50100 ALT FLIGHTS - N/A	-	409,702,703, 710	21
0207 VIDEO SWITCHING NETWORK				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
02070000 VIDEO SWITCHING NETWORK	7	5.0	D1P2	LONG FLIGHTS - On for EVA's, payload deployment, payload retrieval, and payload operations SHORT FLIGHTS - Same ALT FLIGHTS - N/A	B	409,702,703, 710	6
0208 NTWK SIG PROCESSOR (NSP)				FUNCTION: Provide the interface and signal processing of digital data for S-Band transponder reception and transmission; all RF uplinks and downlinks, except FM, are routed through the NSP			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				One NSP will be on continuously from vehicle powerup to stoproll; only one will be on at any one time			
				ANALYSIS USAGE:			
02080100 NSP #1	7	24.0	D2S2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	21
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02080200 NSP #2	7	24.0	D3S2	LONG FLIGHTS - Not used	-	-	36
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
0210 CNTLR CNTL UNIT AUDIO				FUNCTION:			
				Provides crew control of voice intercomm, RF interfaces, and hardline access terminals; routes, switches, and controls voice ICOM and RF links			
				USAGE:			
				One on continuously			
				ANALYSIS USAGE:			
02100100 CNTLR CNTL UNIT AUDIO	7	34.0	D1R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	B	101	4
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
0211 S-BAND FM XMTRS				FUNCTION:			
				Powered and used for transmission to ground sites only			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On from 20 min prior to launch to ET Sep; on as required to downlink recorder dumps, TV, some wideband payload data, and some DOD data			
				ANALYSIS USAGE:			
02110100 S-BAND FM XMTR #1	7	128.0	D1R2	LONG FLIGHTS - On from pwr xfr int to insertion and from deorbit to pwr xfr ext; on 5% of the time (usage factor = 5%) from insertion to deorbit	-	102,103,106	4
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02110200 S-BAND FM XMTR #2	7	128.0	D2R2	LONG FLIGETS - Not used	-	-	19
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
0212 S-BAND FM SIG PROC				FUNCTION:			
				Interface between subsystem equipment and FM transmitter for impedance matching, amplification, and data selection			
				USAGE:			
				On when FM transmitter is on			
				ANALYSIS USAGE:			
02120000 S-BAND FM SIG PROC	7	10.0	D1R2 *D2R2	LONG FLIGHTS - On from pwr xfr int to insertion and from deorbit tc pwr xfr ext; on 5% of the time (usage factor = 5%) from insertion to deorbit	-	102,103,106	19

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same ALT FLIGHTS - N/A			
0213 S-BAND TRANSPONDERS				FUNCTION: Provide RF reception and demodulation of commands and voice; provide transmission of data and voice USAGE: Direct mode from vehicle powerup through insertion from deorbit checkout through stoproll, and on-orbit during STDN coverage whenever TDRS is not available; on continuously in relay mode when TDRS is available (per telecon - direct only) ANALYSIS USAGE:			
02130100 S-BAND TRANSPONDER #1	7	15.0	D2R2	LONG FLIGHTS - On from pwr xfr int to insertion and from deorbit tc pwr xfr ext; on 5% of the time (usage factor = 5%) from insertion to deorbit SHORT FLIGHTS - Same ALT FLIGHTS - N/A	B	102,103,106	19
02130200 S-BAND TRANSPONDER #2	7	15.0	D2R2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	19
0214 S-BAND POWER AMP ASSY				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	EFF	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	PDL	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
02140000 S-BAND POWER AMP ASSY	7	400.0	D2F2	LONG FLIGHTS - On from pwr xfr int to insertion and from deorbit to pwr xfr ext; on 5% of the time (usage factor = 5%) from insertion to deorbit SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	102,103,106	24
0215 S-BAND PRE AMP ASSY				FUNCTION: (TBD) USAGE: (TBD)			
				ANALYSIS USAGE:			
02150000 S-BAND PRE AMP ASSY	7	25.0	D2R2	LONG FLIGHTS - On from pwr xfr int to insertion and from deorbit to pwr xfr ext; on 5% of the time (usage factor = 5%) from insertion to deorbit SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	102,103,106	19
0216 S-BAND ANT SW ASSY				FUNCTION: Provides the capability to switch PM transponders between the four PM antennas and the FM transmitters between the two FM antennas USAGE: On from pwr xfr int to pwr xfr ext			
02160000 S-BAND ANT SW ASSY	7	0.6	D3R2 D2R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	19

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same ALT FLIGHTS - N/A			
0217 TACANS				FUNCTION: Provide earth relative information, range and bearing, to ground beacon; update the state vector; interface with the audio distribution system to provide morse-code identification of ground stations USAGE: Used from end-of-blackout (approx 170,000 feet) through stoproll ANALYSIS USAGE:			
02170100 TACAN #1	4	150.0	A1F3C	LONG FLIGHTS - On from pwr xfr int until one minute after insertion; on from 30 minutes prior to deorbit until 6.5 minutes after stoproll SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll	-	102,107,160, 401,416,504, 952	63
02170200 TACAN #2	4	150.0	A2F3C	LONG FLIGHTS - On from 30 min prior to deorbit until 6.5 min after stoproll SHORT FLIGHTS - On from 15 min prior to deorbit until 6.5 min after stoproll ALT FLIGHTS - Same as 02170100	-	107,416,461 504,953	66
02170300 TACAN #3	4	150.0	A3F3C	LONG FLIGHTS - Same as 02170200	-	107,416,461, 504,954	69

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same as 02170200 ALT FLIGHTS - Same as 02170100			
0218 S-BAND SWITCH (COAX)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
02180000 S-BAND SWITCH (COAX)	7	0.6	A2F3A	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	101	64
0219/0220 MSBLS RF/DCDR ASSEMBLIES				FUNCTION: Transmits and receives signals to the landing site and computes the range to the site; receives azimuth and elevation data from the ground for transmission to the computers; provides a runway referenced deviation signal USAGE: Used from approximately 20,000 feet to stoproll; units transmit and receive continuously when on ANALYSIS USAGE:			
02190100 MSBLS DCDR ASSY #1	4	78.0	D1R2	LONG FLIGHTS - On from pwr xfr int until one minute after insertion; on from 30 minutes prior to deorbit until 6.5 minutes after stoproll	-	102,107,160, 401,416,504, 952	4

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll			
02190200 MSBLS DCDR ASSY #2	4	78.0	D2R2	LONG FLIGHTS - On from 30 min prior to deorbit until 6.5 min after stoproll SHORT FLIGHTS - On from 15 min prior to deorbit until 6.5 min after stoproll ALT FLIGHTS - Same as 02190100	-	107,416,461, 504,953	19
02190300 MSBLS DCDR ASSY #3	4	78.0	D3R2	LONG FLIGHTS - Same as 02190200 SHORT FLIGHTS - Same as 02190200 ALT FLIGHTS - Same as 02190100	-	107,416,461, 504,954	34
02200100 MSBLS RF ASSY #1	4	22.0	D1R2	LONG FLIGHTS - Same as 02190100 SHORT FLIGHTS - Same as 01900100 ALT FLIGHTS - Same as 02190100	-	102,107,160, 401,416,504, 952	4
02200200 MSBLS RF ASSY #2	4	22.0	D2R2	LONG FLIGHTS - On from 30 min prior to deorbit until 6.5 min after stoproll SHORT FLIGHTS - On from 15 min prior to deorbit until 6.5 min after stoproll ALT FLIGHTS - Same as 02190100	-	107,416,461, 504,953	19
02200300 MSBLS RF ASSY #3	4	22.0	D3R2	LONG FLIGHTS - Same as 02200200 SHORT FLIGHTS - Same as 022C0200 ALT FLIGHTS - Same as 02190100	-	107,416,461, 504,954	34

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0221 RADAR ALTIMETERS				FUNCTION: Provide accurate altitude information for the final touchdown over the runway threshold (from approx 2500 feet on down) USAGE: Both units on from deorbit checkout to stoproll ANALYSIS USAGE:			
02210100 RADAR ALTIMETER #1	4	37.5	D1R2	LONG FLIGHTS - On from pwr xfr int until one minute after insertion; on from 30 minutes prior to deorbit until 6.5 minutes after stoproll SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll	-	102,107,160, 401,416,504, 952	4
02210200 RADAR ALTIMETER #2	4	37.5	D2R2	LONG FLIGHTS - On from 30 min prior to deorbit until 6.5 min after stoproll SHORT FLIGHTS - On from 15 min prior to deorbit until 6.5 min after stoproll ALT FLIGHTS - Same as 02210100	-	107,416,461, 504,953	19
0228 COMSEC UNITS (AF)				FUNCTION: Encrypt digital data or audio for transmission and decrypt received data or encrypted voice USAGE: Powered continuously on DOD mission only ANALYSIS USAGE:			
02280100 COMSEC UNIT (AF) #1	3	35.0	D1P2	LONG FLIGHTS - Mission unique - Not used on BRM's 1 and 2	-	730,740	6

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Mission unique - On from pwr xfr int to pwr xfr ext for BRM's 3A and 3B			
				ALT FLIGHTS - N/A			
02280200 COMSEC UNIT (AF) #2	3	35.0	D3P2	LONG FLIGHTS - Same as 02280100	-	730,740	36
				SHORT FLIGHTS - Same as 02280100			
				ALT FLIGHTS - N/A			
02280300(2) COMSEC UNIT (AF) #3 & #4	3	70.0	D3P2	LONG FLIGHTS - Same as 02280100	-	730,740	36
				SHORT FLIGHTS - Same as 02280100			
				ALT FLIGHTS - N/A			
0230 P/L INTERROGATORS (AF&NASA)				FUNCTION:			
				RF xmtr/rcvr for cmds, TM, and voice for detached payloads or attached payloads with RF capability (NASA attached; DOD attached and detached); interface with payload signal processor and COMSEC			
				USAGE:			
				On as required to support payload activities; one unit on at any given time			
				ANALYSIS USAGE:			
02300100 P/L INTERG (AF&NASA) #1	7	30.0	D2P2	LONG FLIGHTS - Mission unique - Not used on BRM's 1 and 2	-	730,740	21
				SHORT FLIGHTS - Mission unique - On from pwr xfr int to pwr xfr ext for BRM's 3A and 3B			
				ALT FLIGHTS - N/A			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
02300200 P/L INTERG (AF&NASA) #2	7	30.0	D3P2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	36
0231 P/L SIG PROCESSORS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
02310100 P/L SIG PROC #1	7	17.0	D2P2	LONG FLIGHTS - Mission unique - Not used on BRM's 1 and 2 SHORT FLIGHTS - Mission unique - On from pwr xfr int to pwr xfr ext on BRM's 3A and 3B ALT FLIGHTS - N/A	-	730,740	21
02310200 P/L SIG PROC #2	7	17.0	D3P2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	36
0233 UHF RCVRS MAIN/GUARD				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
02330100 UHF RCVR #1 MAIN/GUARD	1	30.0	D1R2	LONG FLIGHTS - N/A	-	964	4
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - 80% usage factor from pwr xfr int to pwr xfr ext			
02330200 UHF RCVR #2 MAIN/GUARD	1	30.0	D2R2	LONG FLIGHTS - N/A	-	955	19
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - On from pwr xfr int to stoproll +12 min			
0234 UHF XMTRS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02340100 UHF XMTR #1	1	90.0	D1R2	LONG FLIGHTS - N/A	-	964	4
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - 20% usage factor from pwr xfr int to pwr xfr ext			
02340200 UHF XMTR #2	1	90.0	D2R2	LONG FLIGHTS - N/A	-	-	19
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - Not used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0237 C-BAND BEACON				FUNCTION: Used for ground tracking via C-Band radar USAGE: Powered from pre-flight checkout to stoproll ANALYSIS USAGE:			
02370000 C-BAND BEACON	1	54.0	D	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll NOTE - Assigned to D1R2 for analysis purposes	-	954	4
0238 C-BAND BEACON ANT SW				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
02380000 C-BAND BEACON ANT SW	1	6.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	-
0239 DOPPLER EXTRACTORS				FUNCTION: Interfaces with the STDN/TDRS transponders, network signal processors, and the computers to provide the onboard computers with the capacity to update the navigation state using the doppler signal from the ground site			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On from vehicle powerup to stoproll			
				ANALYSIS USAGE:			
02390100 DOPPLER EXTRACTOR #1	7	10.0	D2R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	19
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02390200 DOPPLER EXTRACTOR #2	7	10.0	D3R2	LONG FLIGHTS - Not used	-	-	34
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
0242 AUDIO TERMINAL UNITS				FUNCTION:			
				Provide audio vox, amplification, clipping, filtering, etc at audio stations			
				USAGE:			
				Used as required for communications; four will probably be on from vehicle powerup thru end of deactivation			
				ANALYSIS USAGE:			
02420100 AUDIO TERM UNIT-PILOT	7	5.0	D1R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	4
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02420200 AUDIO TERM UNIT-CMDR	7	5.0	D1R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	4

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02420300 AUDIO TERM UNIT-MSS	7	5.0	D1S2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	6
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02420400 AUDIO TERM UNIT-PSS	7	5.0	D1S2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	6
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02420500 AUDIO TERM UNIT-EVA	7	5.0	D3S2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	36
02420600 AUDIO TERM UNIT-P/L	7	5.0	D2S2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	21
02420700 AUDIO TERM UNIT-MID #1	7	5.0	D2S2	LONG FLIGHTS - On from insertion to deorbit	-	103	21
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02420800 AUDIO TERM UNIT-MID #2	7	5.0	D3S2	LONG FLIGHTS - On from insertion to deorbit	-	103	36
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02420900 AUDIO TERM UNIT-AIRLOCK	7	5.0	D3S2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	36
0244 INTERCOMM STATION-FWD				FUNCTION:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02440000 INTERCOMM STATION-FWD	1	12.0	D	LONG FLIGHTS - N/A	-	964	34
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D3R2 for purposes of analysis			
0245 INTERCOMM STATION-FWD				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02450000 INTERCOMM STATION-MID	1	12.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	-
0246 AUDIO PANELS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02460100 AUDIO PANEL #1	1	12.0	D	LONG FLIGHTS - N/A	-	964	19
				SHORT FLIGHTS - N/A			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D2R2 for purposes of analysis			
02460200 AUDIO PANEL #2	1	12.0	D	LONG FLIGHTS - N/A	-	955	19
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - On from pwr xfr int to stoproll +12 min			
				NOTE - Assigned to D2R2 for purposes of analysis			
0247 SPEAKER MIKE ASSEMBLIES				FUNCTION:			
				Portable communications unit; jacks located at audio control panels powered continuously			
				USAGE:			
				Used as headset substitute			
				ANALYSIS USAGE:			
02470100 SPEAKER MIKE ASSY #1	7	4.0	D1R2	LONG FLIGHTS - Not used	-	-	4
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - Power consumption is assumed to be negligible			
02470200 SPEAKER MIKE ASSY #2	7	4.0	D2R2	LONG FLIGHTS - Not used	-	-	19
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - Power consumption is assumed to be negligible			
0248 S-BAND FM XMTR (DFI)				FUNCTION:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02480000 S-BAND FM XMTR (DFI)	5	128.0	D3R2	LONG FLIGHTS - Mission Unique - Not used on BRM's 1 & 2	-	960	34
				SHORT FLIGHTS - Mission Unique - Not used on BRM's 3A & 3B			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
0249 S-BND MULTX (DFI)				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02490000 S-BND MULTX (DFI)	5	0.0	D3R2	LONG FLIGHTS - Not used (zero power)			
				SHORT FLIGHTS - Not used (zero power)			
				ALT FLIGHTS - N/A			
0250 KU-BAND RDR/COMM EL ASSYS				FUNCTION:			
				Search and track for radar type targets or comm targets; antenna auto tracks after acquisition; outputs data for the crosspointer indicator			
				USAGE:			
				Used for rendezvous and high data rate comm; high data rate comm is required primarily by payloads			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
02501100 KU-BAND RDR/COMM A EL ASSY #1	3	80.0	D2R2	LONG FLIGHTS - On during rendezvous SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	405	19
02501200 KU-BAND RDR/COMM A EL ASSY #2	3	80.0	D3R2	LONG FLIGHTS - On during rendezvous SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	405	34
02502100 KU-BAND RDR/COMM A EL ASSY #1	3	10.0	A3F3C	LONG FLIGHTS - On during Rendezvous SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	405	69
02502200 KU-BND RDR/COMM A EL ASSY #2	3	10.0	A2F3C	LONG FLIGHTS - On during rendezvous SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	405	66
0251 KU-BAND COMM ELEC ASSYS				FUNCTION: Provide wideband (50 megabit) data interface for payload data transmission to the ground via TDRS USAGE: Possible coverage of 60 - 80%, depending upon vehicle antennas and inclination; not used when S-Band TDRS is on			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
02511100 KU-BND COMM B EL ASSY #1	9	50.0	D2R2	LONG FLIGHTS - On from payload bay doors open to payload bay doors closed	-	730,740,750, 760	19
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02511200 KU-BND COMM B EL ASSY #2	9	50.0	D3R2	LONG FLIGHTS - Not used	-	-	34
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
02512100 KU-BND COMM B EL ASSY #1	9	10.0	A3F3C	LONG FLIGHTS - On from payload bay doors open to payload bay doors closed	-	730,740,750, 760	69
				SHORT FLIGHT - Same			
				ALT FLIGHTS - N/A			
02512200 KU-BND COMM B EL ASSY #2	9	10.0	A2F3C	LONG FLIGHTS - Not used	-	-	66
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
0252 KU-BAND RDR/COMM ASSYS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02521000 KU-BD RDR/COMM A DPLY ASSY	3	50.0	D2R1	LONG FLIGHTS - On during rendezvous	-	405	18

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02522000 KU-BD RDR/COMM A DPLY ASSY	3	395.0	A2F3C	LONG FLIGHTS - On during rendezvous	-	405	66
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
0253 KU-BAND COMM B DPLY ASSYS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02531000 KU-BD COMM B DPLY ASSY	9	85.0	D3R1	LONG FLIGHTS - On from payload bay doors open to payload bay doors closed	-	730,740,750, 760	33
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
02532000 KU-BD COMM B DPLY ASSY	9	235.0	A2F3C	LONG FLIGHTS - On from payload bay doors open to payload bay doors closed	-	730,740,750,	66
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
0254 KU-BAND SIGNAL PROCESSORS				FUNCTION:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02540000 KU-BAND SIGNAL PROCESSOR	3	15.0	D3R2	LONG FLIGHTS - On from payload bay doors open to payload bay doors closed	-	730,740,750, 760	34
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
0256 EVA/ATC TRANSCEIVER				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
02560000 EVA/ATC TRANSCEIVER - EVA	7	50.0	D1M1	LONG FLIGHTS - On 31% of the time from one hour prior to EVA to one hour post EVA	-	409,410	12
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
				NOTE - 150.0 watts (OV-103 EEL)			
02560010 EVA/ATC TRANS - RCV	7	30.0	D1M1	LONG FLIGHTS - On from pwr xfr int until 30.0 minutes after insertion and from deorbit minus 30.0 minutes until pwr xfr ext	-	-	12
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - N/A			
				NOTE - Combined with 02560020 for purposes of analysis			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
02560020 EVA/ATC TRANS -XMIT	7	90.0	D1M1	LONG FLIGHTS - On 5% of the time (usage factor = 5%) from pwr xfr int until 30.0 minutes after insertion and from deorbit minus 30.0 minutes until pwr xfr ext SHORT FLIGHTS - On 5% of the time (usage factor = 5%) from pwr xfr int to pwr xfr ext ALT FLIGHTS - N/A	-	102,106,160, 401,416	12
0257 S-BAND SWITCH COAX (DFI)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
02570000 S-BAND SWITCH COAX (DFI)	2	0.6	A2F3A	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
03 DISPLAYS & CONTROLS							
0301 ATT DIR INDS (ADI)				FUNCTION: Display attitude reference, attitude error, and attitude rate error USAGE: Two forward ADI's are used for ascent and descent; all three will probably be on for all other powered phases; part time use for non-powered phases ANALYSIS USAGE:			
03010100 ADI-FWD RH	4	14.6	D3R2 D2F2	LONG FLIGHTS - On from pwr xfr int to insertion; on 5% of the time (usage factor = 5%) from insertion until 30 minutes prior to deorbit; on from 30 minutes prior to deorbit until 6.5 minutes after stoproll; on from OMS/RCS burns until post burn power down; on for IMU alignment and for stationkeeping SHORT FLIGHTS - On from pwr xfr int to insertion; on 5% of the time (usage factor = 5%) from insertion to deorbit; on from deorbit until 6.5 minutes after stoproll; on for OMS/RCS burns until post burn power down; on for IMU alignment and for stationkeeping ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	R	102,104,107, 160,301,302, 303,304,401, 403,404,416 504,957	19
03010200 ADI-FWD LH	4	14.6	D3L2 D2L2	LONG FLIGHTS - Same as 03010100 SHORT FLIGHTS - Same as 03010100 ALT FLIGHTS - Same as 03010100	R	102,104,107, 160,301,302, 303,304,401, 403,404,416, 504,958	17
03010300 ADI-AFT MSS	7	14.6	D2S2 D3S2	LONG FLIGHTS - On for OMS and RCS burns SHORT FLIGHTS - Same	-	301,302,303	21

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A			
0302 HORIZ SITUATION INDS (HSI)				FUNCTION: Provide desired course, course deviation, heading, range and bearing, and glide slope deviation; selectively driven by TACAN (170,000 ft), MSBLS (12,000 ft), or GNC computer state vector (all entry) USAGE: On from entry to stoproll ANALYSIS USAGE:			
03020100 HSI #1	4	35.0	D3L2	LONG FLIGHTS - On from pwr xfr int until 10 minutes after insertion; on from 30 minutes prior to deorbit until 6.5 minutes after stoproll SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll	-	102,107,160, 401,416,504, 952	32
03020200 HSI #2	4	35.0	D1R2	LONG FLIGHTS - On from 30 min prior to deorbit until 6.5 min after stoproll SHORT FLIGHTS - On from 15 min prior to deorbit until 6.5 min after stoproll ALT FLIGHTS - Same as 03020100	-	107,416,461, 504,954	4
0303 AS/MACH INDS (AMI)				FUNCTION: Display angle of attack, acceleration, mach, equivalent air speed, command air speed; driven by computer state vector and air data probes			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				Used during all of ascent and descent; off after stopburn and on at deorbit checkout; both units on when used			
				ANALYSIS USAGE:			
03030100 AMI #1	4	20.0	D3L2	LONG FLIGHTS - On from pwr xfr int until 10 minutes after insertion; on from 30 minutes prior to deorbit until 6.5 minutes after stoproll	-	102,107,160, 401,416,504, 952	32
				SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll			
				ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll			
03030200 AMI #2	4	20.0	D1R2	LONG FLIGHTS - Same as 03030100	-	102,107,160, 401,416,504, 954	4
				SHORT FLIGHTS - Same as 03030100			
				ALT FLIGHTS - Same as 03030100			
0304 AS/MACH ELECT UNITS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03040100 AS/MACH ELECT UNIT #1	4	20.0	D3L2	LONG FLIGHTS - Same as 03030100	-	102,107,160, 401,416,504, 952	32
				SHORT FLIGHTS - Same as 03030100			
				ALT FLIGHTS - Same as 03030100			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
03040200 AS/MACH ELECT UNIT #2	4	20.0	D1R2	LONG FLIGHTS - Same as 03030100 SHORT FLIGHTS - Same as 03030100 ALT FLIGHTS - Same as 03030100	-	102,107,160, 401,416,504, 954	4
0305 ALT VERT VELOC INDS (AVVI)				FUNCTION: Displays radial acceleration, rate of descent, and altitude; two altitude scales, one driven by radar altimeter, one by computer nav state and/or air data probes USAGE: Used for ascent and descent; off at insertion, on at deorbit checkout, off at stoproll ANALYSIS USAGE:			
03050100 AVVI #1	4	20.0	D3L2	LONG FLIGHTS - On from pwr xfr int until 10 minutes after insertion; on from 30 minutes prior to deorbit until stoproll SHORT FLIGHTS - On from pwr xfr int to stoproll ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll	-	102,107,160, 401,416,952	32
03050200 AVVI #2	4	20.0	D1R2	LONG FLIGHTS - Same as 03050100 SHORT FLIGHTS - Same as 03C50100 ALT FLIGHTS - Same as 03050100	-	102,107,160, 401,416,954	4
0306 ALT VER VEL ELEC UNITS				FUNCTION: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03060100 ALT VER VEL ELEC UNIT #1	4	20.0	D3L2	LONG FLIGHTS - Same as 03050100	-	102,107,160, 401,416,952	32
				SHORT FLIGHTS - Same as 03050100			
				ALT FLIGHTS - Same as 03050100			
03060200 ALT VER VEL ELEC UNIT #2	4	20.0	D1R2	LONG FLIGHTS - Same as 03050100	-	102,107,160, 401,416,954	4
				SHORT FLIGHTS - Same as 03C50100			
				ALT FLIGHTS - Same as 03050100			
0307 TAPE METERS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03070100 TAPE METER (ASC-ENT)	4	6.0	D1R2	LONG FLIGHTS - On from pwr xfr int until one minute after insertion; on from 30 minutes prior to deorbit until 6.5 minutes after stoproll	-	102,107,160, 401,416,504, 964	4
				SHORT FLIGHTS - On from pwr xfr int until 6.5 minutes after stoproll			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - Tape Meter (ALT)			
03070200 (2) TAPE METER (ASC)	7	12.0	D1R2	LONG FLIGHTS - On from pwr xfr int until 1.0 min after insertion	-	102,401,460	4

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same ALT FLIGHTS - N/A			
03070200 (3) TAPE METERS	1	27.0	D1R2	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	4
03070300 (3) TAPE METER (ASC-ENT)	7	27.0	D1R2	LONG FLIGHTS - Same as 03070100 SHORT FLIGHTS - Same as 03070100 ALT FLIGHTS - N/A	-	102,107,160, 401,416,504	4
03070400 TAPE METER (ASC)	7	9.0	D1L2	LONG FLIGHTS - Same as 03070200 SHORT FLIGHTS - Same as 03070200 ALT FLIGHTS - N/A	-	102,401,460	2
03070500 TAPE METER (ASC)	7	12.0	D1L2	LONG FLIGHTS - Same as 03070200 SHORT FLIGHTS - Same as 03070200 ALT FLIGHTS - N/A	-	102,401,460	2
0312 CROSS POINTER IND				FUNCTION: Rendezvous/KU-band comm (TDRS) radar pointing indicator (Pitch & Yaw) USAGE: On during rendezvous and TDRS acquisition ANALYSIS USAGE:			
03120000 CROSS POINTER IND	7	2.0	D1L2	LONG FLIGHTS - On 5% of the time (usage factor = 5%) from insertion to deorbit; on during rendezvous	-	103,405	2

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same ALT FLIGHTS - N/A			
0313 SURF POSIT IND (SPI)				FUNCTION: Indicates positions of elevons, ailerons, body flaps, rudder, and speed brake; driven by Xducers on aerosurfaces USAGE: Used from launch to ET sep and from deorbit to stoproll ANALYSIS USAGE:			
03130000 SPI	4	19.0	D3L2	LONG FLIGHTS - On from pwr xfr int until ten minutes after insertion; on from 30 minutes prior to deorbit until 6.5 minutes after stoproll SHORT FLIGHTS - On from pwr xfr int to 6.5 minutes after stoproll ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	102,107,160, 401,416,504, 964	32
0314 OMS/RCS PROP QTY IND				FUNCTION: Selectable digital readouts of percent fuel and oxidizer remaining USAGE: Powered from vehicle powerup to stoproll ANALYSIS USAGE:			
03140000 OMS/RCS PROP QTY IND	7	6.0	D1R2	LONG FLIGHTS - On from pwr xfr int until 5 minutes after insertion; on for OMS and RCS mnvrs until post burn power-down; on from 30 minutes prior to deorbit until descent to 400,000 feet	S	102,160,301, 302,303,304, 401,416,502	4

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - On from pwr xfr int until descent to 400,000 feet ALT FLIGHTS - N/A			
0315 CAUTION & WARNING UNIT				FUNCTION: Provides hardwired caution & warning monitoring; systems management computer is backup USAGE: On from vehicle powerup to stoproll ANALYSIS USAGE:			
03150000 CAUTION & WARNING UNIT	4	30.0	D2E2 D1E2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	B	101,964	7
0317 MISSION TIMERS				FUNCTION: Redundant time displays; switch controlled to display GMT or GET USAGE: Used as required throughout the mission to coordinate activities and checklist duties; both timers are on continuously ANALYSIS USAGE:			
03170100 MISSION TIMER #1	7	4.0	D1L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	B	101	2

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
03170200 MISSION TIMER #2	7	4.0	D2P2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	101	21
0318 EVENT TIMERS				FUNCTION: Redundant timers which display minutes and seconds; switch controls for OFF/TEST, START/STOP, COUNT-UP/ COUNT-DOWN, and SET/RESET; initial time may be set with thumbwheels USAGE: Used as required to time events such as engine burns, experiments, etc ANALYSIS USAGE:			
03180100 EVENT TIMER #1	7	4.0	D1L2	LONG FLIGHTS - On from pwr xfr int until 30 minutes after insertion; on from one hour prior to deorbit until pwr xfr ext; on for OMS and RCS mnvrs; 20% usage until post burn power-down; on during rendezvous, IVA, EVA SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - N/A	R	102,106,160, 301,302,303, 304,401,405, 408,409;416	2
03180200 EVENT TIMER #2	7	4.0	D3P2	LONG FLIGHTS - On during rendezvous SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	405	36
0322 DISPLAY DRIVER UNITS (DDU)				FUNCTION: DDU's drive the selected CRT formats; one DDU can drive two CRT's; the two forward DDU's service the three forward CRT's; the AFT DDU services the MSS CRT			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				Two DDU's will be powered during orbital operations; three will be powered during all other phases			
				ANALYSIS USAGE:			
03220100 DDU-CREW FWD #1	4	120.0	D2L2 D3L2	LONG FLIGHTS - On from pwr xfr int until start of crew sleep period; on when one or more crewmen are awake; on from end of final crew sleep period until pwr xfr ext	S	102,106,160, 401,402,416, 964	17
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - Assumed to be dioded load			
03220200 DDU-CREW FWD #2	4	120.0	D2R2 D3R2	LONG FLIGHTS - On from pwr xfr int until one hour after insertion; on from 50 minutes prior to deorbit until pwr xfr ext; on 5 minutes prior to OMS and RCS burns until post burn power-down	-	102,106,160, 301,302,303, 304,401,416, 963	19
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - On from pwr xfr int to stoproll			
				NOTE - Assumed to be dioded load			
03220300 DDU-CREW AFT #3	7	120.0	D2S2 D3S2	LONG FLIGHTS - On from pwr xfr int until start of crew sleep period; on when one or more crewmen are awake; on from end of final crew sleep period until pwr xfr ext	-	102,106,160, 401,402,416	21
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0325 MANIP HAND CNTLRS				FUNCTION: Used to manually control/position the manipulator(s) in and about the payload bay area USAGE: (TBD) ANALYSIS USAGE:			
03250100 MANIP HAND CNTLR #1	7	8.0	D3P2	LONG FLIGHTS - On for docking, undocking, payload deployment, and paylcad retrieval SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	406,407,702, 703	36
03250200 MANIP HAND CNTLR #2 (KIT)	8	8.0	D3P2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	36
0326 PUSHBUTTON SWS MSTR ALARM				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
03260000 (4) PUSHBUTTON SWS MSTR ALARM	7	8.0	D1R2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	4
0327 CRT DISPLAY UNITS (DU)				FUNCTION: Display GNC, systems management, or data file information to the crew; three at fwd crew stations, one at MSS, provisions for one at PSS			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				Four on from vehicle powerup to insertion, for all powered orbiter phases, and for entry; two on during orbital operations (one fwd and MSS); used in conjunction with DDU's, DEU's, and GPC's			
				ANALYSIS USAGE:			
03270100 CRT DU #1	4	90.0	D1L2	LONG FLIGHTS - On from pwr xfr int until start of crew sleep period; on when one or more crewmen are awake; on from end of final crew sleep period until pwr xfr ext	S	102,106,160, 401,402,416, 964	2
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - 03190100 (ALT)			
03270200 CRT DU #2	4	90.0	D2R2	LONG FLIGHTS - On from pwr xfr int until one hour after insertion; on from 50 minutes prior to deorbit until pwr xfr ext; on from 5 minutes prior to OMS and RCS mnvrs until post burn power-down	-	102,106,160, 301,302,303, 304,401,416, 966	19
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll			
				NOTE - 03190200 (ALT)			
03270300 CRT DU #3	4	90.0	D3L2	LONG FLIGHTS - Same as 03270200	-	102,106,160, 301,302,303, 304,401,416, 963	32
				SHORT FLIGHTS - Same as 03270200			
				ALT FLIGHTS - On from pwr xfr int until stoproll			
				NOTE - 03190300 (ALT)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
03270400 CRT DU #4	7	90.0	D3S2	LONG FLIGHTS - Same as 03270100 SHORT FLIGHTS - Same as 03270100 ALT FLIGHTS - N/A	S	102,106,160, 401,402,416	36
0328 DISPLAY ELECT UNITS (DEU)				FUNCTION: Process keyboard entries to the GPC's; process and drive the display formats for the CRT's; controlled by computers and switches; loss of DEU causes loss of associated CRT USAGE: Two units on during orbital operations, four on during other phases ANALYSIS USAGE:			
03280100 DEU #1	4	207.3	D1L2	LONG FLIGHTS - On from pwr xfr int until start of crew sleep period; on when one or more crewmen are awake; on from end of final crew sleep period until pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xft ext NOTE - 03210100 (ALT)	S	102,106,160, 401,402,416, 964	2
03280200 DEU #2	4	207.3	D2R2	LONG FLIGHTS - On from pwr xfr int until one hour after insertion; on from 50 minutes prior to deorbit until pwr xfr ext; on 5 minutes prior to OMS and RCS mnvrs until post burn power-down SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int until 12.0 minutes after stoproll NOTE - 03210200 (ALT)	-	102,106,160, 301,302,303, 304,401,416, 966	19

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
03280300 DEU #3	4	207.3	D3L2	LONG FLIGHTS - Same as 03280200 SHORT FLIGHTS - Same as 03280200 ALT FLIGHTS - On from pwr xfr int until stoproll NOTE - 03210300 (ALT)	-	102,106,160, 301,302,303, 304,401,416, 963	32
03280400 DEU #4	7	207.3	D3S2	LONG FLIGHTS - Same as 03280100 SHORT FLIGHTS - Same as 03280100 ALT FLIGHTS - N/A	-	102,106,160, 401,402,416	36
0331 INTEGRAL LIGHTING (IL)				FUNCTION: Primary means of illuminating all display and control areas; 5VAC incandescent lamps; three continuous dimming controls (left/center, overhead, and right) USAGE: (TBD) ANALYSIS USAGE:			
03310100 IL - LEFT/CENTER	4	170.4	A1F3B	LONG FLIGHTS - On from pwr xfr int until start of sleep period; on when one or more crewmen are awake; on from end of final sleep period until pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On 33% of the time (usage factor = 33%) from pwr xfr int to pwr xfr ext NOTE - 34.3 watts (ALT)	-	102,106,160, 401,402,416, 964	62
03310200 IL - OVERHEAD	4	170.4	A2F3B	LONG FLIGHTS - Same as 03310100 SHORT FLIGHTS - Same as 03310100	-	102,106,160, 401,402,416, 964	65

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	EF	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	PDL	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - On 33% of the time (usage factor = 33%) from pwr xfr int to pwr xfr ext NOTE - 34.3 watts (ALT)			
03310300 IL - RIGHT	4	170.4	A3F3B	LONG FLIGHTS - Same as 03310100 SHORT FLIGHTS - Same as 03310100 ALT FLIGHTS - On 33% of the time (usage factor = 33%) from pwr xfr int to pwr xfr ext NOTE - 34.3 Watts (ALT)	B	102,106,160, 401,402,416, 964	68
03310400 IL - REAR	4	170.4	A3F3C	LONG FLIGHTS - Same as 03310100 SHORT FLIGHTS - Same as 03310100 ALT FLIGHTS - Not used NOTE - 34.3 Watts (ALT)	-	102,106,160, 401,402,416	69
0335 MID DECK FLOODLIGHTS				FUNCTION: Provide illumination in the mid deck area; light intensity is dim or bright USAGE: (TBD) ANALYSIS USAGE:			
03350100 (3) MID DECK FLDLTS-1,5,8	7	45.0	D1R2	LONG FLIGHTS - Two of three used - On from 10 minutes after insertion until start of crew sleep period; on when one or more crewmen are awake; on from end of final crew sleep period until deorbit SHORT FLIGHTS - Two of three used - On from insertion to deorbit	ET	160,401,402, 416	4

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A			
				NOTE - Two of three used (PDL)			
03350100 MID DECK FLDLTS-1	1	19.4	D1R2	LONG FLIGHTS - N/A	-	-	4
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - Not used			
03350200 (3) MID DECK FLDLTS-2,3,6	7	45.0	D2R2	LONG FLIGHTS - Not used	-	-	19
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
03350200 (2) MID DECK FLDLTS-2/3	1	38.8	D2R2	LONG FLIGHTS - N/A	-	-	19
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - Not used			
03350300 (3) MID DECK FLDLTS-4,7,9	7	45.0	D2R2	LONG FLIGHTS - Two of three used - On from 10.0 minutes after insertion until start of crew sleep period; on when one or more crewmen are awake; on from end of final crew sleep period until deorbit	-	160,401,402, 416	19
				SHORT FLIGHTS - Two of three used - On from insertion to deorbit			
				ALT FLIGHTS - N/A			
03350300 (2) MID DECK FLDLTS-4/6	1	38.8	D3R2	LONG FLIGHTS - N/A	-	-	34
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - Not used			
03350400 MID DECK FLDLTS-5	1	19.4	D1R2	LONG FLIGHTS - N/A	-	-	4

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - Not used			
03350500 (2) MID DECK FLDLTS-PANEL	1	38.8	D2R2	LONG FLIGHTS - N/A	-	-	19
				SHORT FLIGHTS - N/A			
				ALT FLIGHTS - Not used			
0336 MID DECK SLEEP STA LIGHTS				FUNCTION:			
				Provide illumination in the sleep station area; Light intensity is variable			
				USAGE:			
				Probably on during pre and post sleep periods			
				ANALYSIS USAGE:			
03360000 (4) MID DECK SLEEP STA LIGHTS	7	60.0	D3R2	LONG FLIGHTS - On during pre and post sleep periods	-	414	34
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
0337 MID DECK FLDLTS-PANEL				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03370100 MID DECK FLDLT-PANEL	7	6.0	D1R2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	4
03370200 MID DECK FLDLT-PANEL	7	6.0	D2R2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	19

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0338 MID DECK WASTE MGMT LTS				FUNCTION: Provide illumination in the waste management area USAGE: On when waste management compartment is in use ANALYSIS USAGE:			
03380000 (2) MID DECK WASTE MGMT LTS	7	30.0	D2R2	LONG FLIGHTS - On during waste management and pre/post sleep periods SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	W	413,414	19
0341 AIRLOCK LIGHTS				FUNCTION: Provide illumination within the airlock USAGE: Used during airlock activation ANALYSIS USAGE:			
03410000 (3) AIRLOCK LIGHTS	7	400.0	D3R2	LONG FLIGHTS - On for IVA; on from 15 minutes prior to EVA until 30 minutes post EVA SHORT FLIGHTS - Same ALT FLIGHTS - N/A	T	408,409,410	34
0342 CABIN FLOODLIGHTS - AFT				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
03420100 (2) CABIN FLOODLIGHTS - AFT	4	60.0	D1R2	LONG FLIGHTS - Two on from pwr xfr int to start of crew sleep period, when any crewmen are awake, and from end of final crew sleep period to pwr xfr ext; one on during crew sleep periods SHORT FLIGHTS - Two on from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101,102,106, 160,401,402, 416,964	4
03420200 GLARESHIELD FLOODLIGHTS-LEFT	7	30.0	D1E2	LONG FLIGHTS - On from pwr xfr int to start of crew sleep period; on when one or more crewmen are awake; on from end of final crew sleep period until pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - N/A	-	102,106,160, 401,402,416,	7
03420200 (2) GLARESHIELD FLOODLIGHTS-LEFT	1	59.6	D3R2	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	34
03420300 GLARESHIELD FLOODLIGHTS-RIGHT	7	30.0	D3E2	LONG FLIGHTS - Same as 03420200 SHORT FLIGHTS - Same as 03420200 ALT FLIGHTS - N/A	-	102,106,160, 401,402,416	37
03420300 (2) GLARESHIELD FLOODLIGHTS-RIGHT	1	59.6	D3R2	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	34

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
03420400 CENTER CONSOLE FLOODLIGHT	4	15.0	D1R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same AIT FLIGHTS - Same NOTE - 29.8 Watts (ALT)	S T	101,964	
03420500 CENTER CONSOLE FLOODLIGHT	7	15.0	D1R2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	4
03420500 PILOT CONSOLE FLDLTS-RHT	1	29.8	D2R2	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	19
03420600 PILOT CONSOLE FLDLT-LEFT	4	15.0	D3R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same NOTE - 29.8 Watts (ALT)	-	101,964	34
03420700 PILOT CONSOLE FLDLT-RIGHT	7	15.0	D2R2	LONG FLIGHTS - Same as 03420600 SHORT FLIGHTS - Same ALT FLIGHTS - N/A (ALT 03420500)	-	101	19
0343 REAR STATION LIGHTS				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
03430000 (2) REAR STA LTS-PSS/MSS	7	60.0	D3B2	LONG FLIGHTS - On during docking, undocking, payload deployment, paylcad retrieval, and payload operations SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	406,407,702, 703,710	34
0349 PLB FLOODLIGHTS				FUNCTION: Provide illumination to support orbiter payload operations both internal and external to the payload bay; crew has remote on/off and dimming control USAGE: (TBD) ANALYSIS USAGE:			
03490000 (6) PLB FLOODLIGHTS	7	1200.0	D3S2	LONG FLIGHTS - On during payload deployment, payload retrieval, and payload operations SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	702,703,710	36
0350 MANIP SPOT LIGHTS				FUNCTION: Illuminate the working area of the effector for direct viewing and for TV USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
03500100 MANIP SPOT LIGHT	7	100.0	D3S2	LONG FLIGHTS - On during docking, undocking, payload deployment, and paylcad retrieval	-	406,407,702, 703	36
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
03500200 MANIP SPOT LIGHT (KIT)	8	100.0	D3S2	LONG FLIGHTS - Same as 03500100	-	406,407,702, 703	
				SHORT FLIGHTS - Same as 03500100			
				ALT FLIGHTS - N/A			
0351 RNDZ LIGHT				FUNCTION:			
				Provides position indication for visual acquisition during daylight or dark rendezvous situations;			
				USAGE:			
				Provides illumination for use with COAS for rescue, docking, survey of another vehicle, payload deployment/retrieval, and stationkeeping			
				ANALYSIS USAGE:			
03510000 RNDZ LIGHT	7	130.0	D1S2	LONG FLIGHTS - On 5% of the time (usage factor = 5%) during rendezvous	-	405	6
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
0354 DOCKING SPOT LIGHTS				FUNCTION:			
				Provide illumination for daylight or dark docking operations, aids stationkeeping and EVA visibility			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03540000 (2) DOCKING SPOT LIGHTS	7	200.0	D1S2	LONG FLIGHTS - On during stationkeeping, docking, undocking, and EVA	-	403,406,407, 409	6
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
0355 C&W STATUS DISPLAY				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03550000 C&W STATUS DISPLAY	4	20.0	D2E2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	22
				NOTE - D1E (ALT)			
0356 C&W ANNUN ASSY				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03560000 C&W ANNUN ASSY-OPR	4	24.0	D1E2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	7
				SHORT FLIGHTS - Not used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - Not used			
				NOTE - D1E (ALT)			
03560010 C&W ANNUN ASSY-QUIESCENT	4	2.0	D2E2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	22
				NOTE - D1E (ALT)			
0357 ANGLE SIDESLIP IND (BUFC)				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03570000 ANGLE SIDESLIP IND (BUFC)	1	10.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	9
				NOTE - Assigned to D1F2 for analysis purposes			
0358 ANGLE ATTACK IND (BUFC)				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03580000 ANGLE ATTACK IND (BUFC)	1	10.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	24
				NOTE - Assigned to D2F2 for analysis purposes			
0359 ATTITUDE IND (BUFC)				FUNCTION:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03590000 ATTITUDE IND (BUFC)	1	8.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	39
				NOTE - Assigned to D3F2 for analysis purposes			
0372 COMPUTER STATUS IND LTS				FUNCTION:			
				(TBD)			
				USAGE			
				(TBD)			
				ANALYSIS USAGE:			
03720000 COMPUTER STATUS IND LTS	4	5.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	22
				NOTE - Assigned to D2E2 for analysis purposes			
0373 ANNUNCIATOR LIGHTS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
03730100 ANNUN LTS - LEFT/CENTER	4	53.1	A1F3A	LONG FLIGHTS - On from pwr xfr int until start of crew sleep period; on when one or more crewmen are awake; on from the end of the final crew sleep period until pwr xfr ext	-	102,106,160, 401,402,416, 964	61
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - On 50% of the time (usage factor = 50%) from pwr xfr int to pwr xfr ext			
				NOTE - 25.6 Watts (ALT)			
03730200 ANNUN LTS-OVERHEAD	4	53.1	A3P3B	LONG FLIGHTS - Same as 03730100	-	102,106,160, 401,402,416, 964	68
				SHORT FLIGHTS - Same as 03730100			
				ALT FLIGHTS - Same as 03730100			
				NOTE - 25.6 Watts (ALT)			
03730300 ANNUN LTS-RIGHT	4	53.1	A2P3C	LONG FLIGHTS - Same as 03730100	-	102,106,160, 401,402,416, 964	66
				SHORT FLIGHTS - Same as 03730100			
				ALT FLIGHTS - Same as 03730100			
				NOTE - 25.6 Watts (ALT)			
03730400 ANNUN LTS-REAR	4	53.1	A3P3C	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	69
				NOTE - 25.6 Watts (ALT)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
04 OPERATIONAL FLIGHT INSTR							
0403 PCM MASTER UNIT (DACBU)				FUNCTION: Requests and obtains data from the data buses via the MDM's; formats selected subsets of data into a serial data stream output to be recorded and multiplexed with wideband data to be transmitted to the ground at 128 KBS; interfaces with CPU's USAGE: (TBD) ANALYSIS USAGE:			
04030100 DACBU #1	4	75.0	D2F2 B1F2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	S	101,962	11
04030200 DACBU #2	4	75.0	D3F2 D1F2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	41
0404 MAINTENANCE RECORDER				FUNCTION: Records 128 KBS data from DACBU, 128 KBS data from the loop recorder, and 60 KBS data from each of the three main engines; records 3.5 hours of data USAGE: Records at end of track of loop recorder for 10 seconds and anomaly data in 5 minute bursts from the loop recorder; controlled by loop RCDR, PMS, or crew			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
04040000 MAINTENANCE RECORDER	4	40.0	D1L2	LONG FLIGHTS - On from pwr xfr int to insertion and from deorbit tc pwr xfr ext; on 2% of the time (usage factor = 2%) from insertion to deorbit SHORT FLIGHTS - Same ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	102,103,106, 962	2
0405 SIG COND UNITS (SCU)-FWD				FUNCTION: Provide signal conditioning for 120 measurements USAGE: (TBD) ANALYSIS USAGE:			
04050100 SCU-FWD #1	4	35.0	D2L2 D1L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same NOTE - 7.8 watts (ALT)	S	101,962	2
04050200 SCU-FWD #2	4	35.0	D3L2 D2L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same NOTE - 4.5 Watts (ALT)	-	101,962	17
04050300 SCU-FWD #3	7	35.0	D1L2 D3L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same	-	101	32

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A			
0406 SIG COND UNITS (SCU)-AFT				FUNCTION: Provide signal conditioning for 120 OFI measurements USAGE: (TBD) ANALYSIS USAGE:			
04060100 SCU-AFT #1	4	35.0	D2A2 D1A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same NOTE - 23.4 Watts (ALT)	S	101,962	15
04060200 SCU-AFT #2	4	35.0	D2A2 D3A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same NOTE - 25.5 Watts (ALT)	-	101,962	30
04060300 SCU-AFT #3	4	35.0	D1A2 D3A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same NOTE - 23.2 Watts, D2A2/D3A2 (ALT)	-	101,962	45
0407 LOOP RECORDER				FUNCTION: Records 192 KBS output of DACBU (OI, computer data, payload data, and voice) for dump onto maintenance recorder or dump to ground			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On continuously for temporary storage of data/voice; data/voice may be dumped to maintenance rcdr in the event of an anomaly or dumped to ground			
				ANALYSIS USAGE:			
04070000 LOOP RECORDER	7	40.0	D1L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	2
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
0409 MASTER TIMING UNITS (MTU)				FUNCTION:			
				Primary source of current time (GMT/MET); time outputs to computers, DACBU's crew displays, and recorders			
				USAGE:			
				On from vehicle powerup to stoproll			
				ANALYSIS USAGE:			
04090000 MTU - WARMUP	4	40.0	D1E2	LONG FLIGHTS - Not used	-	-	7
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - D3E2/D1E2 (ALT)			
04090010 MTU - OPERATE	4	26.0	D1E2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	S	101,964	7
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			
				NOTE - D3E2/D1E2 (ALT)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0411 PAYLOAD DATA INTERLEAVER (PDI)				FUNCTION: Decommutates and selectively reformats PCM data, from up to five attached payloads and one detached payload, for interleaving with orbiter operational telemetry; data is systems monitoring (housekeeping) for PMS and downlink USAGE: Determined by payload requirements ANALYSIS USAGE:			
04110000 PDI	7	30.0	*D3L2 D1L2	LONG FLIGHTS - Mission unique - BRM 1 - on from pwr xfr int until manipulator stowage complete following tug separation; on from initiation of tug retrieval sequence until pwr xfr ext; BRM 2 - on from start to end of sortie operations SHORT FLIGHTS - Mission unique - BRM 3A - on from pwr xfr int until release of payload; BRM 3B - not used ALT FLIGHTS - N/A	-	701	32
0412 SIG COND UNITS-OMS/RCS				FUNCTION: Provide signal conditioning for 120 measurements USAGE: Powered at vehicle powerup through stoproll ANALYSIS USAGE:			
04120100 SCU-OMS/RCS #1	7	35.0	D2A2 *D1A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	101	14

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
04120200 SCU-OMS/RCS #2	7	35.0	*D2A2 D3A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	101	21
0413 SIG COND UNIT - MID FUS				FUNCTION: Provides signal conditioning for 120 measurements USAGE: Powered at vehicle powerup through stoproll ANALYSIS USAGE:			
04130000 SCU - MID FUS	4	35.0	*D1M2 D2M2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same NOTE - 22.9 Watts (ALT)	-	101,962	12
0414 SIG COND UNIT-FWD RCS				FUNCTION: Provides signal conditioning for 120 measurements USAGE: Powered at vehicle powerup through stoproll ANALYSIS USAGE:			
04140000 SCU - FWD RCS	7	35.0	D3L2 D2L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	101	17

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E P F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0416 WIDEBAND SIG COND (BAY4)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
04160000 (4) WIDEBAND SIG COND (BAY4)	4	2.4	D1A2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	14
0417 WIDEBAND SIG COND (BAY5)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
04170000 (2) WIDEBAND SIG COND (BAY5)	4	1.2	D2A2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	29

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
05 DEVELOPMENT FLIGHT INSTR							
0503 PCM MASTER UNIT (DACBU)				FUNCTION: Provides an interface between the DFI MDM's and FDM's via data buses USAGE: Required from vehicle powerup to stoproll ANALYIS USAGE:			
05030100 DACBU #1	2	75.0	D3R1	LONG FLIGHTS - Mission unique - BRM 1 - not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A	-	150	33
05030200 DACBU #2	2	75.0	D3R1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	33
0504 PCM RECORDER				FUNCTION: Records all DFI subsystem data; interfaces with GSE umbilical for data dump USAGE: Records data from DFI DACBU either continuously or in timed intervals of one SPM. ANALYSIS USAGE:			
05040000 PCM RECORDER	2	40.0	D3R1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	150	33

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - N/A			
0505 SIG COND UNITS (SCU) - FWD				FUNCTION:			
				Provide signal conditioning for 120 measurements			
				USAGE:			
				Powered from vehicle powerup to stoproll			
				ANALYSIS USAGE:			
05050100 SCU-FWD #1	5	35.0	D3R1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	150,960	33
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - 17.9 watts (ALT)			
05050200 SCU-FWD #2	5	35.0	D3R1	LONG FLIGHTS - Same as 05050100	-	150,960	33
				SHORT FLIGHTS - Same as 05050100			
				ALT FLIGHTS - Same as 05050100			
05050300 SCU-FWD #3	5	35.0	D3R1	LONG FLIGHTS - Same as 05050100	-	150,960	33
				SHORT FLIGHTS - Same as 05050100			
				ALT FLIGHTS - Same as 05050100			
05050400 SCU-FWD #4	2	35.0	D3R1	LONG FLIGHTS - Same as 05050100	-	150	33
				SHORT FLIGHTS - Same as 05050100			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A			
0506 SIG COND UNITS (SCU) - MID				FUNCTION: Provide signal conditioning for 120 measurements USAGE: Powered from vehicle powerup to stoproll ANALYSIS USAGE:			
05060100 SCU-MID #1	5	35.0	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - 28.0 watts (ALT)	-	150,960	43
05060200 SCU-MID #2	5	35.0	D3A1	LONG FLIGHTS - Same as 05060100 SHORT FLIGHTS - Same as 05060100 ALT FLIGHTS - Same as 05060100 NOTE - 31.9 watts (ALT)	-	150,960	43
05060300 (6) SCU-MID #3 - #8	2	210.0	D3A1	LONG FLIGHTS - Same as 05060100 SHORT FLIGHTS - Same as 05060100 ALT FLIGHTS - N/A	-	150	43
05060400 (4) SCU-MID #9 - #12	2	140.0	D3A1	LONG FLIGHTS - Same as 05060100 SHORT FLIGHTS - Same as 05060100	-	150	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A			
0507 WIDEBAND PDM UNIT-FWD				FUNCTION: Accepts serial data from the DFI DACBU and mixes this data with analog signals; outputs data to either the wideband recorder or to the FM xmtr USAGE: On from vehicle powerup to stoproll ANALYSIS USAGE:			
05070000 WIDEBAND PDM UNIT-FWD	5	50.0	D3B1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	150,960	33
0508 WIDEBAND PDM UNITS-MID				FUNCTION: Accepts serial data from the DFI DACBU and mixes this data with analog signals; outputs data to either the wideband recorder or to the FM xmtr USAGE: On from vehicle powerup to stoproll ANALYSIS USAGE:			
05080100 WIDEBAND PDM UNIT-MID #1	5	50.0	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used	-	150,961	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
05080200 WIDEBAND FDM UNIT-MID #2	5	50.0	D3A1	LONG FLIGHTS - Same as 05080100	-	150,961	43
				SHORT FLIGHTS - Same as 05080100			
				ALT FLIGHTS - Same as 05080100			
05080300 WIDEBAND FDM UNIT-MID #3	2	50.0	D3A1	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	43
0509 WIDEBAND RECORDER				FUNCTION:			
				Interfaces with three DFI FDM's for multiplexed wideband analog data (14 Tracks/150 Parameters); dump is through GSE umbilical			
				USAGE:			
				On for approximately 10 minutes during ascent and descent			
				ANALYSIS USAGE:			
05090000 WIDEBAND RECORDER	5	40.0	D3B1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	150,963	33
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - On for 13 minutes commencing at start of first separation maneuver; on for 10 minutes commencing at decision to abort			
0512 WIDEBAND SCU's-FWD				FUNCTION:			
				Provide compatible interfaces between piezoelectric transducers and wideband frequency division multiplexers			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On from vehicle powerup to stoproll			
				ANALYSIS USAGE:			
05120000 (40) WIDEBAND SCU-FWD	5	24.0	D3R1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	150,961	33
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - 05120000 (22) 13.2 watts (ALT)			
0513 WIDEBAND SCU's-MID				FUNCTION:			
				Provide compatible interfaces between piezoelectric transducers and wideband frequency division multiplexers			
				USAGE:			
				On from vehicle powerup to stoproll			
				ANALYSIS USAGE:			
05130100 (82) WIDEBAND SCU-MID	5	49.2	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	150,961	43
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - 05130100 (32), 19.2 watts (ALT)			
05130200 (83) WIDEBAND SCU-MID	5	49.8	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - not used; BRM 2 - Not used	-	150,961	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - 05130200 (31), 18.6 watts (ALT)			
0515 STRAIN GAGE SIG COND-FWD				FUNCTION:			
				Condition strain gage signals for input to DFI MDM's			
				USAGE:			
				On from vehicle powerup to stoproll			
				ANALYSIS USAGE:			
05150000 (5) STRAIN GAGE SIG COND-FWD	5	28.0	D3R1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	150,960	33
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
0516 STRAIN GAGE SIG COND-MID				FUNCTION:			
				Condition strain gage signals for input to DFI-MDM's			
				USAGE:			
				On from vehicle powerup to stoproll			
				ANALYSIS USAGE:			
05160100 (45) STRAIN GAGE SIG COND-MID	5	252.0	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	150,960	43
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - 05160100 (42), 235.2 watts (ALT)			
05160200 (71) STRAIN GAGE SIG COND-MID	5	397.6	D3A1	LONG FLIGHTS - Mission Unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - 05160200 (45), 252.0 watts (ALT)	-	150,960	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
06 ELEC PWR DIST & CONTROL							
0601 INVERTERS				FUNCTION: Converts DC power to 115V, 400 Hz AC power for AC buses USAGE: On continuously from pwr up to stoproll, draws no power ANALYSIS USAGE:			
06010100 (3) INVERTERS 1PH, 750VA, 80%	4	0.0	D1F2	LONG FLIGHTS - Not used (Zero power) SHORT FLIGHTS - Not used (Zero power) ALT FLIGHTS - Not used (Zero power)	-	-	9
06010200 (3) INVERTERS 1PH, 750VA, 80%	4	0.0	D2F2	LONG FLIGHTS - Not used (Zero power) SHORT FLIGHTS - Not used (Zero power) ALT FLIGHTS - Not used (Zero power)	-	-	24
06010300 (3) INVERTERS 1PH, 750VA, 80%	4	0.0	D3F2	LONG FLIGHTS - Not used (Zero power) SHORT FLIGHTS - Not used (Zero power) ALT FLIGHTS - Not used (Zero power)	-	-	39
0602 PYRO EVENT CNTLRS				FUNCTION: Used to initiate fwd area pyro functions (docking ring jett, manip jett, backup NLG deploy, etc.)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On continuously from launch to orbit and during entry			
				ANALYSIS USAGE:			
06020100 PYRO EVENT CNTLR-FWD #1	7	25.0	D2R2 *D1R2	LONG FLIGHTS - On from pwr xfr int to insertion +1 min; on from 30 min prior to deorbit to pwr xfr ext	-	102,106,160, 401,416	4
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - N/A			
06020200 PYRO EVENT CNTLR-FWD #2	7	25.0	D3R2 *D2R2	LONG FLIGHTS - Same as 06020100	-	102,106,160, 401,416	19
				SHORT FLIGHTS - Same as 06020100			
				ALT FLIGHTS - N/A			
0603 MASTER EVENT CNTLRS (MEC)				FUNCTION:			
				Used to initiate aft area pyro functions			
				USAGE:			
				On continuously from launch to orbit			
				ANALYSIS USAGE:			
06030100 MEC-AFT #1	7	25.0	D2R2 *D1R2	LONG FLIGHTS - On from pwr xfr int to insertion +1 min; on from 30 min prior to deorbit to pwr xfr ext	-	102,106,160, 401,416	4
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - N/A			
06030200 MEC-AFT #2	7	25.0	D3R2 *D2R2	LONG FLIGHTS - Same as 06030100	-	102,106,160, 402,416	19

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same as 06030100			
				ALT FLIGHTS - N/A			
0604 LOAD CNTLR ASSYS-FWD				FUNCTION:			
				Provide power to fwd loads less than 10 amps			
				USAGE:			
				On continuously from pwr up to stoproll			
				ANALYSIS USAGE:			
06040100 LOAD CNTLR ASSY-FWD #1	7	90.0	D1F2	LONG FLIGHTS - 33% usage from pwr xfr int to insertion +1 hr and from 1 hr prior to deorbit to pwr xfr ext; 20% usage remainder of flight	B	101,102,106, 160,401,416	9
				SHORT FLIGHTS - 33% usage from pwr xfr into to pwr xfr ext			
				ALT FLIGHTS - N/A - ALT No. 06300100			
06040200 LOAD CNTLR ASSY-FWD #2	7	90.0	D2F2	LONG FLIGHTS - Same as 06040100	B	101,102,106, 160,401,416	24
				SHORT FLIGHTS - Same as 06040100			
				ALT FLIGHTS - N/A - ALT No. 06300200			
06040300 LOAD CNTLR ASSY-FWD #3	7	90.0	D3F2	LONG FLIGHTS - Same as 06040100	B	101,102,106, 160,401,416	39
				SHORT FLIGHTS - Same as 06040100			
				ALT FLIGHTS - N/A - ALT No. 06300300			
0605 LOAD CNTLR ASSYS-AFT				FUNCTION:			
				Provide power to aft loads less than 10 amps			
				USAGE:			
				On continuously from pwr up to stoproll			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
06050100 LOAD CNTLR ASSY-AFT #1	7	90.0	D1A2	LONG FLIGHTS - 33% usage from pwr xfr int to insertion +1 hr and from 1 hr prior to deorbit to pwr xfr ext; 20% usage remainder of flight SHORT FLIGHTS - 33% usage from pwr xfr int to pwr xfr ext ALT FLIGHTS - N/A - ALT No. 06310100	B	101,102,106, 160,401,416	14
06050200 LOAD CNTLR ASSY-AFT #2	7	90.0	D2A2	LONG FLIGHTS - Same as 06050100 SHORT FLIGHTS - Same as 06050100 ALT FLIGHTS - N/A - ALT No. 06310200	B	101,102,106, 160,401,416	29
06050300 LOAD CNTLR ASSY-AFT #3	7	90.0	D3A2	LONG FLIGHTS - Same as 06050100 SHORT FLIGHTS - Same as 06050100 ALT FLIGHTS - N/A - ALT No. 06310300	B	101,102,106, 160,401,416	44
0606 DC PWR CNTLR ASSYS-FWD (PCA)				FUNCTION: Provide and control power to fwd equipment USAGE: On continuously from pwr up to stoproll ANALYSIS USAGE:			
06060100 PCA-FWD #1	7	260.0	D1F2	LONG FLIGHTS - 50% usage from pwr xfr int to insertion +1 hr and from deorbit - 1 hr to pwr xfr ext; 33% usage remainder of flight SHORT FLIGHTS - 50% usage from pwr xfr int to pwr xfr ext	B	101,102,106, 160,401,416	9

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A - ALT No. 06320100			
06060200 PCA-FWD #2	7	260.0	D2F2	LONG FLIGHTS - Same as 06060100 SHORT FLIGHTS - Same as 06060100 ALT FLIGHTS - N/A - ALT No. 06320200	-	101,102,106, 160,401,416	24
06060300 PCA-FWD #3	7	260.0	D3F2	LONG FLIGHTS - Same as 06060100 SHORT FLIGHTS - Same as 06060100 ALT FLIGHTS - N/A - ALT No. 06320300	-	101,102,106, 160,401,416	39
0607 DC PWR CNTLR ASSYS-AFT (PCA)				FUNCTION: Provide and control power to aft equipment USAGE: On continuously from pwr up to stoproll ANALYSIS USAGE:			
06070100 PCA-AFT #1	7	123.0	D1A2	LONG FLIGHTS - 50% usage from pwr xfr int to insertion +1 hr and from decrbit - 1 hr to pwr xfr ext; 33% usage remainder of flight SHORT FLIGHTS - 50% usage from pwr xfr int to pwr xfr ext ALT FLIGHTS - N/A - ALT No. 06330100	B	101,102,106, 160,401,416	14
06070200 PCA-AFT #2	7	123.0	D2A2	LONG FLIGHTS - Same as 06070100 SHORT FLIGHTS - Same as 06070100 ALT FLIGHTS - N/A - ALT No. 06330200	-	101,102,106, 160,401,416	29

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
06070300 PCA-AFT #3	7	123.0	D3A2	LONG FLIGHTS - Same as 06070100 SHORT FLIGHTS - Same as 06070100 ALT FLIGHTS - N/A - ALT No. 06330300	-	101,102,106, 160,401,416	44
0608 MAIN DC DIST & CNTL ASSYS				FUNCTION: Controls fuel cell to main bus connections, main bus ties, and essential bus power; contains bus feeder protection USAGE: On continuously from pwr up to stoproll ANALYSIS USAGE:			
06080100 MAIN DC DIST & CNTL ASSY #1	7	100.0	D1M2	LONG FLIGHTS - On from pwr xfr int to insertion +1 hr & from deorbit - 1 hr to pwr xfr ext; 33% usage remainder of flight SHORT FLIGHTS - On from pwr xfr into to pwr xfr ext ALT FLIGHTS - N/A - ALT No. 06340100	B	101,102,106, 160,401,416	12
06080200 MAIN DC DIST & CNTL ASSY #2	7	100.0	D2M2	LONG FLIGHTS - Same as 06080100 SHORT FLIGHTS - Same as 06080100 ALT FLIGHTS - N/A - ALT No. 06340200	B	101,102,106, 160,401,416	27
06080300 MAIN DC DIST & CNTL ASSY #3	7	100.0	D3M2	LONG FLIGHTS - Same as 06080100 SHORT FLIGHTS - Same as 06080100 ALT FLIGHTS - N/A - ALT No. 06340300	B	101,102,106, 160,401,416	42

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0610 INV DIST & CNTL ASSYS				FUNCTION: Provides control for inverter to AC Bus Connection, AC Bus over/under voltage monitor, and auto disconnect logic USAGE: On continuously from pwr up to stoproll ANALYSIS USAGE:			
06101100 INV DIST & CNTL ASSY #1 (DC)	7	5.0	D1E2	LONG FLIGHTS - 100% usage from pwr xfr int to insertion; 67% usage from insertion to insertion +1 hr, and from deorbit -1 hr to pwr xfr ext; 50% usage remainder of flight SHORT FLIGHTS - 100% usage from pwr xfr int to insertion, 67% usage remainder of flight ALT FLIGHTS - N/A	B	101,102,106, 160,401,416	7
06101200 INV DIST & CNTL ASSY #2 (DC)	7	5.0	D2E2	LONG FLIGHTS - Same as 06101100 SHORT FLIGHTS - Same as 06101100 ALT FLIGHTS - N/A	-	101,102,106, 160,401,416	22
06101300 INV DIST & CNTL ASSY #3 (DC)	7	5.0	D3E2	LONG FLIGHTS - Same as 06101100 SHORT FLIGHTS - Same as 06101100 ALT FLIGHTS - N/A	-	101,102,106, 160,401,416	37
06102100 INV DIST & CNTL ASSY #1 (AC)	7	3.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Same as 06101100 SHORT FLIGHTS - Same as 06101100 ALT FLIGHTS - N/A	-	101,102,106, 160,401,416	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
06102200 INV DIST & CNTL ASSY #2 (AC)	7	3.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 06101100 SHORT FLIGHTS - Same as 06101100 ALT FLIGHTS - N/A	-	101,102,106, 160,401,416	53
06102300 INV DIST & CNTL ASSY #3 (AC)	7	3.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Same as 06101100 SHORT FLIGHTS - Same as 06101100 ALT FLIGHTS - N/A	-	101,102,106, 160,401,416	54
0612 DC PWR CNTL ASSYS-MID (PCA)				FUNCTION: Provides and controls power to equipment located in the mid fuselage area USAGE: On continuously from power up to stoproll ANALYSIS USAGE:			
06120100 PCA-MID #1	7	20.0	D1M2	LONG FLIGHTS - 100% usage from pwr xfr int to insertion; 50% usage from insertion to insertion +1 hr and from deorbit -1 hr to pwr xfr ext; 33% usage remainder of flight SHORT FLIGHTS - 100% usage from pwr xfr int to insertion; 50% usage remainder of flight ALT FLIGHTS - N/A	B	101,102,106, 160,401,416	12
06120200 PCA-MID #2	7	20.0	D2M2	LONG FLIGHTS - Same as 06120100 SHORT FLIGHTS - Same as 06120100 ALT FLIGHTS - N/A	-	101,102,106, 160,401,416	27

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
06120300 PCA-MID #3	7	45.0	D3M2	LONG FLIGHTS - Same as 06120100 SHORT FLIGHTS - Same as 06120100 ALT FLIGHTS - N/A	-	101,102,106, 160,401,416	42
0616 EXTRAVEHICULAR LIFE SUPPORT SYSTEM (EVLSS) PWR SUPPLY/BAT CHG				FUNCTION: Provides regulated power to EVLSS prior to switching to EVLSS Battery, also used to top off Battery before EVA and recharge post EVA USAGE: On from approximately 1 hr prior to an EVA to 30 min post EVA ANALYSIS USAGE:			
06160000 EVLSS PWR SUPPLY/BAT CHG	7	45.0	D3S1	LONG FLIGHTS - On from 1.0 hrs prior to EVA until 1.0 hrs post EVA; 6.25% usage factor (i.e. pwr = 0.0625 X 45.0 = 2.81 watts) from EVA -2.0 hrs to EVA - 1.0 hrs for battery top off and from EVA +1.0 hrs to EVA +24.0 hrs for battery recharge - Mission Unique - Not used on BRM1 or BRM2 SHORT FLIGHTS - Same - Mission unique - Not used on BRM 3A or BRM 3B ALT FLIGHTS - N/A	-	409,410	35
0619 H2/O2 CRYO CNTL ASSYS				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
06190100 H2/O2 CRYO CNTL ASSY #1	7	30.0	D2M2 D1M2	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - Assumed to be dioded load	-	-	27
06190200 H2/O2 CRYO CNTL ASSY #2	7	30.0	D2M2 D1M2	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - Assumed to be dioded load	-	-	27
06190300 H2/O2 CRYO CNTL ASSY KIT	8	30.0	D2M2 D1M2	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - Assumed to be dioded load	-	-	27
0620 PROXIMITY SWITCH ELECS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
06200100 PROXIMITY SWITCH ELEC #1	4	8.0	A3F3A	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - D (ALT)	-	-	67
06200200 PROXIMITY SWITCH ELEC #2	4	8.0	A2F3A	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - D (ALT)	-	-	64
06200300 PROXIMITY SWITCH ELEC #3	1	8.0	D	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - Assigned to A1F3A for analysis purposes	-	-	61
0621 MOTOR CNTL ASSYS-FWD				FUNCTION: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
06210100 MOTOR CNTL ASSY-FWD #1	7	110.0	D1F2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	9
06210200 MOTOR CNTL ASSY-FWD #2	7	120.0	D2F2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	24
06210300 MOTOR CNTL ASSY-FWD #3	7	110.0	D3F2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	39
0622 MOTOR CNTL ASSYS-MID				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
06220100 MOTOR CNTL ASSY-MID #1	7	330.0	D1M2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	12
06220200 MOTOR CNTL ASSY-MID #2	7	325.0	D2M2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	27
06220300 MOTOR CNTL ASSY-MID #3	7	330.0	D3M2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	42
0623 MOTOR CNTL ASSYS-AFT				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			

TABLE A-7.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
06230100 MOTOR CNTL ASSY-AFT #1	7	245.0	D1A2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	14
06230200 MOTOR CNTL ASSY-AFT #2	7	265.0	D2A2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	29
06230300 MOTOR CNTL ASSY-AFT #3	7	295.0	D3A2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	44
0630 LOAD CNTL ASSYS-FWD				FUNCTION:			
				Provides power to fwd loads less than 10 amps			
				USAGE:			
				On continuously from pwr up to stoproll			
				ANALYSIS USAGE:			
06300100 LOAD CNTL ASSY-FWD #1	1	90.0	D	LONG FLIGHTS - N/A - See 06040100	-	964	9
				SHORT FLIGHTS - N/A - See 06040100			
				ALT FLIGHTS - 33% usage from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D1F2 for purposes of analysis			
06300200 LOAD CNTL ASSY-FWD #2	1	90.0	D	LONG FLIGHTS - N/A - See 06040200			
				SHORT FLIGHTS - N/A - See 06040200			
				ALT FLIGHTS - 33% usage from pwr xfr int to pwr xfr ext	-	964	24
				NOTE - Assigned to D2F2 for purposes of analysis			
06300300 LOAD CNTL ASSY-FWD #3	1	90.0	D	LONG FLIGHTS - N/A - See 06040300			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - N/A - See 06040300			
				ALT FLIGHTS - 33% usage from pwr xfr int to pwr xfr ext	-	964	39
				NOTE - Assigned to D3F2 for purposes of analysis			
0631 LOAD CNTL ASSYS-AFT				FUNCTION:			
				Provides power to aft loads less than 10 amps			
				USAGE:			
				On continuously from pwr up to stoproll			
				ANALYSIS USAGE:			
06310100 LOAD CNTL ASSY-AFT #1	1	90.0	D	LONG FLIGHTS - N/A - See 06050100	-	964	14
				SHORT FLIGHTS - N/A - See 06050100			
				ALT FLIGHTS - 33% usage from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D1A2 for purposes of analysis			
06310200 LOAD CNTL ASSY-AFT #2	1	90.0	D	LONG FLIGHTS - N/A - See 06050200	-	964	29
				SHORT FLIGHTS - N/A - See 06050200			
				ALT FLIGHTS - 33% usage from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D2A2 for purposes of analysis			
06310300 LOAD CNTL ASSY-AFT #3	1	90.0	D	LONG FLIGHTS - N/A - See 06050300	-	964	44
				SHORT FLIGHTS - N/A - See 06050300			
				ALT FLIGHTS - 33% usage from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D3A2 for purposes of analysis			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0632 DC PWR CNTL-FWD				FUNCTION: Provides and controls power to fwd equipment USAGE: On continuously from pwr up to stoproll ANALYSIS USAGE:			
06320100 DC PWR CNTL-FWD #1	1	260.0	D	LONG FLIGHTS - N/A - See 06060100 SHORT FLIGHTS - N/A - See 06060100 ALT FLIGHTS - 50% usage from pwr xfr int to pwr xfr ext NOTE - Assigned to D1F2 for purposes of analysis	-	964	9
06320200 DC PWR CNTL-FWD #2	1	260.0	D	LONG FLIGHTS - N/A - See 06060200 SHORT FLIGHTS - N/A - See 06060200 ALT FLIGHTS - 50% usage from pwr xfr int to pwr xfr ext NOTE - Assigned to D2F2 for purposes of analysis	-	964	24
06320300 DC PWR CNTL-FWD #3	1	260.0	D	LONG FLIGHTS - N/A - See 06060300 SHORT FLIGHTS - N/A - See 06060300 ALT FLIGHTS - 50% usage from pwr xfr int to pwr xfr ext NOTE - Assigned to D3F2 for purposes of analysis	-	964	39
0633 DC PWR CNTL-AFT				FUNCTION: Provides and controls power to aft equipment			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On continously from pwr up to stoproll			
				ANALYSIS USAGE:			
06330100 DC PWR CNTL-AFT #1	1	85.0	D	LONG FLIGHTS - N/A - See 06C70100	-	964	14
				SHORT FLIGHTS - N/A - See 06070100			
				ALT FLIGHTS - 50% usage from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D1A2 for purposes of analysis			
06330200 DC PWR CNTL-AFT #2	1	85.0	D	LONG FLIGHTS - N/A - See 06070200	-	964	29
				SHORT FLIGHTS - N/A - See 06070200			
				ALT FLIGHTS - 50% usage from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D2A2 for purposes of analysis			
06330300 DC PWR CNTL-AFT #3	1	102.0	D	LONG FLIGHTS - N/A - See 06070300	-	964	44
				SHORT FLIGHTS - N/A - See 06070300			
				ALT FLIGHTS - 50% usage from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D3A2 for purposes of analysis			
0634 MAIN DC DIST/CNTL				FUNCTION:			
				Controls fuel cell to main bus connections, main bus ties, and essential bus power; contains bus feeder protection			
				USAGE:			
				On continuously from pwr up to stoproll			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
06340100 MAIN DC DIST/CNTL #1	1	100.0	D	LONG FLIGHTS - N/A - See 06080100	-	964	12
				SHORT FLIGHTS - N/A - See 06080100			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D1M2 for purposes of analysis			
06340200 MAIN DC DIST/CNTL #2	1	100.0	D	LONG FLIGHTS - N/A - See 06080200	-	964	27
				SHORT FLIGHTS - N/A - See 06080200			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D2M2 for purposes of analysis			
06340300 MAIN DC DIST/CNTL #3	1	100.0	D	LONG FLIGHTS - N/A - See 06080300	-	964	42
				SHORT FLIGHTS - N/A - See 06080300			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				NOTE - Assigned to D3M2 for purposes of analysis			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
07 DATA PROCESSING							
0701 COMPUTERS				FUNCTION: Perform onboard data processing in support of Guidance, Navigation & Control, Performance Monitoring, Payload Management and Payload Handling. USAGE: 5 on from power up through insertion and from deorbit -30 min through stoproll. 2 on during orbital operations. ANALYSIS USAGE:			
07010100 COMPUTER #1	4	650.0	D2F2 D1F2 D3F2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext. SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext. ALT FLIGHTS - On from pwr xfr int to pwr xfr ext.	S	101,964	46
07010200 COMPUTER #2	4	650.0	D2F2 D1F2 D3F2	LONG FLIGHTS - Same as 07010100 SHORT FLIGHTS - Same as 07C10100 ALT FLIGHTS - Same as 07010100	-	101,964	46
07010300 COMPUTER #3	4	650.0	D2F2 D1F2 D3F2	LONG FLIGHTS - On from pwr xfr int to insertion +30 min; on from deorbit -30 min to pwr xfr ext. SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to stoproll +12 min	-	102,106,160 401,416,966	46
07010400 COMPUTER #4	4	650.0	D2F2 D1F2 D3F2	LONG FLIGHTS - Same as 07010300 SHORT FLIGHTS - Same as 07C10300 ALT FLIGHTS - Same as 07010300	-	102,106,160, 401,416,966	46

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
07010500 COMPUTER #5	4	650.0	D2F2 D1F2 D3F2	LONG FLIGHTS - On from pwr xfr int to insertion +30 min; on from deorbit -30 min to pwr xfr ext; on from 5 min prior to an OMS or RCS burn until 30 min after the burn; if burns are closely spaced, on from 5 min prior to the first until 30 min after the last. SHORT FLIGHTS - Same as 07010300 ALT FLIGHTS - Same as 07010300	B	102,106,160,	46
0702 COMPUTER INTERFACE ADAPT				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
07030000 COMPUTER INTERFACE ADAPT	1	5.0	D2F2 D1F2 D3F2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	46
0703 MDM's FLIGHT FORWARD(FF)				FUNCTION: Provides an interface between the computers and the subsystems. USAGE: 3 on from launch -6 hrs thru insertion; 2 on during orbital operations; 4 on from deorbit -30 min to stoproll			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
07030100 MDM FF1	4	40.0	D2F2 D1F2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	S R	101,964	11
07030200 MDM FF2	4	40.0	D3F2 D2F2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext. SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext. ALT FLIGHTS - On from pwr xfr int to pwr xfr ext.	B	101,964	26
07030300 MDM FF3	4	40.0	D1F2 D3F2	LONG FLIGHTS - On from pwr xfr int to insertion +30 min; on from deorbit -30 min to pwr xfr ext. SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext. ALT FLIGHTS - On from pwr xfr int to stoproll +12 min.	-	102,106,160, 401,416,966	41
07030400 MDM FF4	4	40.0	D3F2 D2F2	LONG FLIGHTS - On from deorbit -30 min to pwr xfr ext SHORT FLIGHTS - On from deorbit -30 min to pwr xfr ext ALT FLIGHTS - Same as 07030300	-	106,416,461, 966	26
07030500 MDM FF5 (BUFC)	1	40.0	D3F2 D1F2	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Same as 07030300	-	956	41

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0704 MDM's FLIGHT APT (FA)				FUNCTION: Provides an interface between the computers and the subsystems USAGE: 4 on from launch -6 hrs thru insertion; 2 on during orbital operations; 4 on from deorbit -30 min to stoproll ANALYSIS USAGE:			
07040100 MDM FA1	4	40.0	D2A2 D1A2	LONG FLIGHTS - On from pwr xfr int to pwr xfer ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - D1L2 (ALT)	R	101,964	15
07040200 MDM FA2	4	40.0	D3A2 D2A2	LONG FLIGHTS - On from pwr xfr int to insertion +30 min; on from deorbit -30 min to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - D3L2/D2L2 (ALT)	-	102,106,160, 401,416,964	30
07040300 (2) MDM FA3 & FA4	4	80.0	D3A2 D1A2	LONG FLIGHTS - One on from pwr xfr int to pwr xfr ext; one on from pwr xfr int to insertion +30 min, and from deorbit -30 min to pwr xfr ext SHORT FLIGHTS - Both on from pwr xfr int to pwr xfr ext ALT FLIGHTS - One on from pwr xfr int to pwr xfr ext; one on from pwr xfr int to stoproll +12 min NOTE - D1L2/D3L2 (ALT)	-	101,102,106, 160,401,416, 966	45

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0705 MDM DF				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
07050100 MDM DF1 (DFI-FWD)	5	40.0	D3D1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	150,960	38
07050200 MDM DF2 (DFI-FWD)	2	40.0	D	LONG FLIGHTS - Same as 07050100 SHORT FLIGHTS - Same as 07050100 ALT FLIGHTS - N/A	-	150	-
0706 MDM DM				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
07060100 MDM DM1 (DFI-MID)	5	40.0	D3D1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	150,960	38

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
07060200 MDM DM2 (DFI-MID)	5	40.0	D3D1	LONG FLIGHTS - Same as 07060100 SHORT FLIGHTS - Same as 07060100 ALT FLIGHTS - Same as 07060100	-	150,960	38
07060300 MDM DM3 (DFI-MID)	2	40.0	D3D1	LONG FLIGHTS - Same as 07060100 SHORT FLIGHTS - Same as 07060100 ALT FLIGHTS - N/A	-	150	38
07060400 MDM DM4 (DFI-MID)	2	40.0	D3D1	LONG FLIGHTS - Same as 07060100 SHORT FLIGHTS - Same as 07060100 ALT FLIGHTS - N/A	-	150	38
07060500 MDM DM5 (DFI-MID)	2	40.0	D3D1	LONG FLIGHTS - Same as 07060100 SHORT FLIGHTS - Same as 07060100 ALT FLIGHTS - N/A	-	150	38
0709 MASS MEMORIES				FUNCTION: Used to store all computer programs and display formats USAGE: Used prior to launch to load computers with launch programs; both standby during launch; on-orbit programs loaded after insertion; one standby, one off during orbital ops, deorbit program loaded prior to the deorbit burn; both standby during entry.			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
07090100 MASS MEM #1(TAPE) OPER	4	53.0	D1R2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - On for 5 min prior to each separation maneuver NOTE - D1L2 (ALT)	-	951,963	4
07090110 MASS MEM #1(TAPE) STBY	4	8.0	D1R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext, except when operate (07090100) is on. NOTE - D1L2 (ALT)	-	101,964	4
07090200 MASS MEM #2(TAPE) OPER	4	53.0	D2R2	LONG FLIGHTS - On from deorbit -30 min to deorbit -25 min SHORT FLIGHTS - On from deorbit -30 min to deorbit -25 min ALT FLIGHTS - Not used NOTE - D2L2 (ALT)	-	416,461	19
07090210 MASS MEM #2(TAPE) STBY	4	8.0	D2R2	LONG FLIGHTS - On from pwr xfr int to insertion +1 hr; on from deorbit -25 min to pwr xfr ext. SHORT FLIGHTS - On from pwr xfr int to deorbit -30 min; on from deorbit -25 min to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - D2L2 (ALT)	-	102,106,161, 401,416,460, 461,964	19

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0710 MDM's OPERATIONAL FLIGHT INSTRUMENTATION (OFI)				FUNCTION: Provides an interface between the computers and the subsystems USAGE: On from vehicle power up through stoproll ANALYSIS USAGE:			
07100100 MDM OFI 1	4	40.0	D2L2 D1L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	R	101,962	2
07100200 MDM OFI 2	4	40.0	D2L2 D1L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - D2L2/D3L2 (ALT)	-	101,962	2
07100300 MDM OFI 3	4	40.0	D2L2 D3L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - D1L2/D3L2 (ALT)	-	101,962	17
07100400 MDM OFI 4	4	40.0	D2L2 D3L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext NOTE - D1L2/D3L2 (ALT)	-	101,962	17

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
0711 MDM's OPERATIONAL AFT INSTRUMENTATION (OAI)				FUNCTION: Provides an interface between the computers and the subsystems USAGE: On from vehicle power up through stoproll ANALYSIS USAGE:			
07110100 MDM OAI-1	4	40.0	D2A2 D1A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	R	101,962	15
07110200 MDM OAI-2	4	40.0	D3A2 D2A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101,962	30
07110300 MDM OAI-3	4	40.0	D3A2 D1A2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101,962	45
0712 MDM LAUNCH FORWARD (LF)				FUNCTION; To provide interface between ground stations and vehicle systems (RI) USAGE: Full use during launch (RI)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
07120000 MDM LF-1 (GSE)	4	40.0	D2G2 D1G2	LONG FLIGHTS - On from pwr xfr int to liftoff SHORT FLIGHTS - On from pwr xfr int to liftoff ALT FLIGHTS - Not used	-	210	11
0713 MDM LAUNCH APT (LA)				FUNCTION: To provide interface between ground stations and vehicle systems (RI) USAGE: Full use during launch (RI) ANALYSIS USAGE:			
07130000 MDM LA-1 (GSE)	4	40.0	D2G2 D1G2	LONG FLIGHTS - On from pwr xfr int to liftoff SHORT FLIGHTS - On from pwr xfr int to liftoff ALT FLIGHTS - Not used	-	210	11
0715 ENG INTERFACE UNITS				FUNCTION: Processes signals to the main engine controller for GNC commands, instrumentation, propellant depletion shutdown commands, and commands from/data to GSE (RI) USAGE: Energized during main engine operation (RI) ANALYSIS USAGE:			
07150100 ENG INTERFACE UNIT #1	7	50.6	D2A2 D1A2	LONG FLIGHTS - On from pwr xfr int to insertion +3.5 min	-	102,401,460	15

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - On from pwr xfr int to insertion +3.5 min			
				ALT FLIGHTS - N/A			
07150200 ENG INTERFACE UNIT #2	7	50.6	D3A2 D2A2	LONG FLIGHTS - On from pwr xfr int to insertion +3.5 min	-	102,401,460	30
				SHORT FLIGHTS - On from pwr xfr int to insertion +3.5 min			
				ALT FLIGHTS - N/A			
07150300 ENG INTERFACE UNIT #3	7	50.6	D1A2 D3A2	LONG FLIGHTS - On from pwr xfr int to insertion +3.5 min	-	102,401,460	45
				SHORT FLIGHTS - On from pwr xfr int to insertion +3.5 min			
				ALT FLIGHTS - N/A			
0716 DATA BUS ISO AMPS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
07160100 DATA BUS ISO AMP #1 (GSE)	4	24.0	D1G2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	9
				NOTE - 20.0 W. (ALT)			
07160110 DATA BUS ISO AMP #1 (ORB)	4	20.0	D1A1	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	13
07160200 DATA BUS ISO AMP #2 (GSE)	4	24.0	D2G2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	24
				NOTE - 20.0 W (ALT)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
07160210 DATA BUS ISO AMP #2 (ORB)	4	20.0	D2A1	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
08 PAYLOAD MANAGEMENT							
0801 MDM'S PAYLOAD FORWARD (PF)				FUNCTION: Interfaces between the payload and the PLM computer, Network Signal Processor, C & W system, Payload Signal Processor and DACBU USAGE: On during payload operations only ANALYSIS USAGE:			
08010100 MDM PF 1	7	40.0	D3F2 D2F2	LONG FLIGHTS - On when it was assumed that the P/L was transmitting data-mission unique: BRM 1 - On from L/O to tug release +6.5 min and from initiation of tug retrieval to pwr xfr ext; BRM 2 - On from begin sortie ops to end sortie ops SHORT FLIGHTS - On when it was assumed that the P/L was transmitting data-mission unique: BRM 3A - On from L/O to after P/L release; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	701	26
08010200 MDM PF 2	7	40.0	D1F2 D2F2	LONG FLIGHTS - Same as 08010100 SHORT FLIGHTS - Same as 08010100 ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	701	11
0802 WIDE BAND RECORDER (MSS)				FUNCTION: Allows storage of 30 min to 1 hr of payload science data; interfaces with payload MDM's, KU-Band Signal Processor, and the payload. Has dump capability			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On as required by experiments			
				ANALYSIS USAGE:			
08020000 WIDE BAND RECORDER (MSS)	7	175.0	D3P2	LONG FLIGHTS - Mission unique - Not used in BRM 1 and 2 analyses	-	-	36
				SHORT FLIGHTS - Mission unique - Not used in BRM 3A and 3B analyses			
				ALT FLIGHTS - N/A			
0803 PCM RECORDER (MSS)				FUNCTION:			
				Records 4 to 5 hrs of 512 KBPS science data; interfaces with the payload MDM's, KU-Band Signal Processor, FM Signal Processor, ACCU, and payload. Has dump capability			
				USAGE:			
				On as required by experiments			
				ANALYSIS USAGE:			
08030000 PCM RECORDER (MSS)	7	40.0	D3P2	LONG FLIGHTS - Mission unique - Not used in BRM 1 and 2 analyses	-	-	36
				SHORT FLIGHTS - Mission unique - Not used in BRM 3A and 3B analyses			
				ALT FLIGHTS - N/A			
0804 PAYLOAD (P/L)				FUNCTION:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
08040000 P/L - ASCENT/ENTRY	7	961.5	D3M2	Not used in analysis (4/1/75)	-	-	42
08040100 P/L - SORTIE	7	5769.2	D3M2	Not used in analysis (4/1/75)	-	-	42
0805 AUX C&W UNIT (MSS)				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
08050000 AUX C&W UNIT (MSS)	7	10.0	D3W2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	48
0806 AUX C&W ANNUN ASSY (MSS)				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
08060000 AUX C&W ANNUN ASSY (MSS)	7	15.0	D3W2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	48

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
15 EXTERNAL TANK							
1501 MDM DFI				FUNCTION: Provides a compatible interface between the computers and ET subsystems USAGE: Powered until ET separation ANALYSIS USAGE:			
15010000 MDM DFI	2	20.0	D3A1 D1A1	LONG FLIGHTS - OFT unique - Not used in BRM 1 and BRM 2 analyses SHORT FLIGHTS - OFT unique - Not used in BRM 3A and BRM 3B analyses ALT FLIGHTS - N/A	-	150	45

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
16 SOLID ROCKET BOOSTER							
1601 RATE GYRO ASSYS				FUNCTION: Measure angular rates, interfaces with the SRB signal conditioners, signals then routed to SRB MDM's USAGE: On from TBD min prior to launch through SRB sep (approx 2 min GET) ANALYSIS USAGE:			
16010100 (3) RATE GYRO ASSY	7	126.0	D2A1	LONG FLIGHTS - On from pwr xfr int to SRB sep SHORT FLIGHTS - On from pwr xfr int to SRB sep ALT FLIGHTS - N/A NOTE - Activity block time corresponds to BRM2 SRB sep	-	201	28
16010200 (3) RATE GYRO ASSY	7	126.0	D3A1	LONG FLIGHTS - On from pwr xfr int to SRB sep SHORT FLIGHTS - On from pwr xfr int to SRB Sep ALT FLIGHTS - N/A NOTE - Activity block time corresponds to BRM 2 SRB sep	-	201	43
1602 MDM's				FUNCTION: Provide interface between computer and SRB systems USAGE: On from launch to SRB sep			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
16020100 (2) MDM-SET 1	7	30.0	D2A1	LONG FLIGHTS - On from pwr xfr int to SRB sep	-	201	28
				SHORT FLIGHTS - On from pwr xfr int to SRB sep			
				ALT FLIGHTS - N/A			
				NOTE - Activity block time corresponds to BRM 2 SRB sep			
16020200 (2) MDM-SET 2	7	30.0	D3A1	LONG FLIGHTS - On from pwr xfr int to SRB sep	-	201	43
				SHORT FLIGHTS - On from pwr xfr int to SRB sep			
				ALT FLIGHTS - N/A			
				NOTE - Activity block time corresponds to BRM 2 SRB sep			
1604 MDM's DFI				FUNCTION:			
				Provide a compatible interface between computers and SRB systems			
				USAGE:			
				Powered until SRB Separation			
				ANALYSIS USAGE:			
16040100 MDM DFI #1	2	35.0	D2A1	LONG FLIGHTS - OFT unique - Not used in BRM 1 and BRM 2 analyses	-	150	28
				SHORT FLIGHTS - OFT unique - Not used in BRM 3A and BRM 3B analyses			
				ALT FLIGHTS - N/A			
16040200 MDM DFI #2	2	35.0	D3A1	LONG FLIGHTS - OFT Unique - Not used in BRM 1 and BRM 2 analyses	-	150	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - OFT Unique - Not used in BRM 3A and BRM 3B analyses			
				ALT FLIGHTS - N/A			
1605 PYRO INITIATOR CONTROLLERS (PIC) IGNITION				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
16050100 (3) PIC IGNITION SET 1	7	0.0	D2A1	LONG FLIGHTS - Not used (zero power)	-	-	-
				SHORT FLIGHTS - Not used (zero power)			
				ALT FLIGHTS - N/A			
16050200 (3) PIC IGNITION-SET 2	7	0.0	D3A1	LONG FLIGHTS - Not used (zero power)	-	-	-
				SHORT FLIGHTS - Not used (zero power)			
				ALT FLIGHTS - N/A			
1606 PYRO INITIATOR CONTROLLERS (PIC) SEPARATION				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
16060100 (21) PIC SEPARATION-SET 1	7	0.0	D2A1	LONG FLIGHTS - Not used (zero power)	-	-	-
				SHORT FLIGHTS - Not used (zero power)			
				ALT FLIGHTS - N/A			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
16060200 (21) PIC SEPARATION-SET 2	7	0.0	D3A1	LONG FLIGHTS - Not used (zero power) SHORT FLIGHTS - Not used (zero power) ALT FLIGHTS - N/A	-	-	-
1607 SIGNAL CONDITIONERS				FUNCTION: Provide interface between transducers and MDM's USAGE: On at vehicle power up, off at SRB sep ANALYSIS USAGE:			
16070100 (2) SIG COND-SET 1	7	40.0	D2A1	LONG FLIGHTS - On from pwr xfr int to SRB Sep SHORT FLIGHTS - On from pwr xfr int to SRB Sep ALT FLIGHTS - N/A NOTE - Activity block time corresponds to BRM 2 SRB sep	-	201	28
16070200 (2) SIG COND-SET 2	7	40.0	D3A1	LONG FLIGHTS - On from pwr xfr int to SRB Sep SHORT FLIGHTS - On from pwr xfr int to SRB Sep ALT FLIGHTS - N/A NOTE - Activity block time corresponds to BRM 2 SRB sep			
1608 TVC HYDR RECIRC SYS				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
16080000 (4) TVC HYDR RECIRC SYS	7	824.0	D2A1	LONG FLIGHTS - On from pwr xfr int to SRB Sep	-	201	28
				SHORT FLIGHTS - On from pwr xfr int to SRB Sep			
				ALT FLIGHTS - N/A			
				NOTE - Activity block time corresponds to BRM 2 SRB sep			
1609 SAFE & ARM DEVICE				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
16090000 (4) SAFE & ARM DEVICE	7	300.0	D3A1	LONG FLIGHTS - Not used (assumed pwr consumption is negligible)	-	-	43
				SHORT FLIGHTS - Not used (assumed pwr consumption is negligible)			
				ALT FLIGHTS - N/A			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
20 MAIN PROPULSION SYS							
2001 MAIN ENG CONTROLLERS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20010100 MAIN ENG CONTROLLER-1	7	750.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On from pwr xfr int to insertion +3 min SHORT FLIGHTS - On from pwr xfr int to insertion +3 min ALT FLIGHTS - N/A	-	102,401,460	52
20010200 MAIN ENG CONTROLLER-2	7	750.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - On from pwr xfr int to insertion +3 min SHORT FLIGHTS - On from pwr xfr int to insertion +3 min ALT FLIGHTS - N/A	-	102,401,460	53
20010300 MAIN ENG CONTROLLER-3	7	750.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - On from pwr xfr int to insertion +3 min SHORT FLIGHTS - On from pwr xfr int to insertion +3 min ALT FLIGHTS - N/A	-	102,401,460	54
2002 MAIN ENG HTRS				FUNCTION: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20020100 MAIN ENG HTR #1	7	300.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
20020200 MAIN ENG HTR #2	7	300.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
20020300 MAIN ENG HTR #3	7	300.0	D3A1	LONG FLIGHTS - Not used	-	-	43
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
2003 LO2 PREVALVE SOLENOIDS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20030100 LO2 PREVALVE SOLENOID #1	7	42.0	D2A1 *D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +3 min	-	102,401,460	13
				SHORT FLIGHTS - On from pwr xfr int to insertion +3 min			
				ALT FLIGHTS - N/A			
				NOTE - One used, 20030100 represents two			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
20030200 LO2 PREVALVE SOLENOID #2	7	42.0	*D2A1 D3A1	LONG FLIGHTS - On from pwr xfr int to insertion +3 min SHORT FLIGHTS - On from pwr xfr int to insertion +3 min ALT FLIGHTS - N/A NOTE - One used, 20030200 represents two	-	102,401,460	28
20030300 LO2 PREVALVE SOLENOID #3	7	42.0	D1A1 *D3A1	LONG FLIGHTS - On from pwr xfr int to insertion +3 min SHORT FLIGHTS - On from pwr xfr int to insertion +3 min ALT FLIGHTS - N/A NOTE - One used, 20030300 represents two	-	102,401,460	43
2004 LH2 PREVALVE SOLENOIDS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20040100 LH2 PREVALVE SOLENOID #1	7	42.0	D2A1 *D1A1	LONG FLIGHTS - On from pwr xfr int insertion +3 min SHORT FLIGHTS - On from pwr xfr int to insertion +3 min ALT FLIGHTS - N/A NOTE - One used, 20040100 represents two	-	102,401,460	13

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
20040200 LH2 PREVALVE SOLENOID #2	7	42.0	*D2A1 D3A1	LONG FLIGHTS - On from pwr xfr int to insertion +3 min SHORT FLIGHTS - On from pwr xfr int to insertion +3 min ALT FLIGHTS - N/A NOTE - One used, 20040200 represents two	-	102,401,460	28
20040300 LH2 PREVALVE SOLENOID #3	7	42.0	D2A1 D1A1 *D3A1	LONG FLIGHTS - On from pwr xfr int to insertion +3 min SHORT FLIGHTS - On from pwr xfr int to insertion +3 min ALT FLIGHTS - N/A NOTE - One used, 20040300 represents two	-	102,401,460	43
2005 LO2 FD&DMP VLV #1 (O/B) SOL				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20050000 LO2 FD&DMP VLV #1 (O/B) SOL	7	42.0	D2A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min SHORT FLIGHTS - On from pwr xfr int to insertion +4 min ALT FLIGHTS - N/A NOTE - One used, 20050000 represents two	-	102,401,460	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2006 LO2 FD&DMP VLV #2 (O/B) SOL				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20060000 LO2 FD&DMP VLV #2 (O/B) SOL	7	42.0	D2A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min SHORT FLIGHTS - On from pwr xfr int to insertion +4 min ALT FLIGHTS - N/A NOTE - One used, 20060000 represents two	-	102,401,460	28
2007 LH2 FD&DMP VLV #1 (O/B) SOL's				FUNCTION (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20070100 LH2 FD&DMP VLV #1 (O/B) SOL	7	42.0	D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min SHORT FLIGHTS - On from pwr xfr int to insertion +4 min ALT FLIGHTS - N/A	-	102,401,460	13

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
20070200 LH2 FD&DMP VLV #1 (O/B) SOL	7	42.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-		13
2008 LH2 FD&DMP VLV #2 (O/B) SOL's				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20080100 LH2 FD&DMP VLV#2 (O/B)SOL	7	42.0	D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min SHORT FLIGHTS - On from pwr xfr int to insertion +4 min ALT FLIGHTS - N/A	-	102,401,460	13
20080200 LH2 FD&DMP VLV#2 (O/B) SOL	7	42.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-		
2009 LH2 TOPPING VLV OPEN SOL				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
20090000 LH2 TOPPING VLV OPEN SOL	7	42.0	D1A1	LONG FLIGHTS - On from pwr xfr int to L/O -2 min SHORT FLIGHTS - On from pwr xfr int to L/O -2 min ALT FLIGHTS - N/A	-	210	13
2010 LH2 RECRC VLV OPEN SOL's				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20100100 LH2 RECRC VLV OPEN SOL#1	7	42.0	D1G1	LONG FLIGHTS - On from pwr xfr int to L/O SHORT FLIGHTS - On from pwr xfr int to L/O ALT FLIGHTS - N/A	-	210	8
20100200 LH2 RECRC VLV OPEN SOL#2	7	42.0	D2G1	LONG FLIGHTS - On from pwr xfr int to L/O SHORT FLIGHTS - On from pwr xfr int to L/O ALT FLIGHTS - N/A	-	210	23
20100300 LH2 RECRC VLV OPEN SOL#3	7	42.0	D3G1	LONG FLIGHTS - On from pwr xfr int to L/O SHORT FLIGHTS - On from pwr xfr int to L/O ALT FLIGHTS - N/A	-	210	38
2011 ET/ORB LO2 FEED DISC SOV's				FUNCTION: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20110100 ET/ORB LO2 FEED DISC SOV	7	42.0	D2A1 *D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min	-	102,401,460	13
				SHORT FLIGHTS - On from pwr xfr int to insertion +4 min			
				ALT FLIGHTS - N/A			
20110200 ET/ORB LO2 FEED DISC SOV	7	42.0	*D2A1 D1A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
2012 ET/ORB LH2 FEED DISC SOV'S				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20120100 ET/ORB LH2 FEED DISC SOV	7	42.0	D2A1 *D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
20120200 ET/ORB LH2 FEED DISC SOV	7	42.0	*D2A1 D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min	-	102,401,460	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - On from pwr xfr int to insertion +4 min			
				ALT FLIGHTS - N/A			
2013 ET/ORB RECIRC DISC SOV's				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20130100 ET/ORB RECIRC DISC SOV	7	42.0	D3A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min	-	102,401,460	43
				SHORT FLIGHTS - On from pwr xfr int to insertion +4 min			
				ALT FLIGHTS - N/A			
20130200 ET/ORB RECIRC DISC SOV	7	42.0	D3A1	LONG FLIGHTS - Not used	-	-	43
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
2014 LO2 FEEDLN RELF SHUTOFF				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20140000 LO2 FEEDLN RELF SHUTOFF	7	42.0	D3A1	LONG FLIGHTS - On from pwr xfr int to MECO	-	201	43
				SHORT FLIGHTS - On from pwr xfr int to MECO			
				ALT FLIGHTS - N/A			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2015 LH2 FEEDLN RELF SHUTOFF				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20150000 LH2 FEEDLN RELF SHUTOFF	7	42.0	D3A1	LONG FLIGHTS - On from pwr xfr int to MECO SHORT FLIGHTS - On from pwr xfr int to MECO ALT FLIGHTS - N/A	-	201	43
2016 LH2 PRESS'N DISC BYPASS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20160000 LH2 PRESS'N DISC BYPASS	7	42.0	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	43
2017 ET VENT VLV ISO SOL VLV				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
20170000 (2) ET VENT VLV ISO SOL VLV	7	84.0	D1A1	LONG FLIGHTS - On from pwr xfr int to MECO +23 sec SHORT FLIGHTS - On from pwr xfr int to MECO +23 sec ALT FLIGHTS - N/A	-	201,202	13
2018 LO2 FEEDLN REPRESS VLV's				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20180100 LO2 FEEDLN REPRESS VLV#1	7	42.0	D3A1	LONG FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	401,460,503, 504	43
20180200 LO2 FEEDLN REPRESS VLV#2	7	42.0	D3A1	LONG FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	401,460,503, 504	43
2019 LH2 FEEDLN REPRESS VLV's				FUNCTION: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20190100 LH2 FEEDLN REPRESS VLV#1	7	42.0	D3A1	LONG FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown	-	401,460,503, 504	43
				SHORT FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown			
				ALT FLIGHTS - N/A			
20190200 LH2 FEEDLN REPRESS VLV#2	7	42.0	D3A1	LONG FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown	-	401,406,503, 504	43
				SHORT FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown			
				ALT FLIGHTS - N/A			
2020 HE CROSSOVER VLV's				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20200100 HE CROSSOVER VLV #1	7	42.0	D1A1	LONG FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown	-	401,460,503, 504	13
				SHORT FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown			
				ALT FLIGHTS - N/A			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
20200200 HE CROSSOVER VLV #2	7	42.0	D2A1	LONG FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	401,460,503, 504	28
20200300 HE CROSSOVER VLV #3	7	42.0	D3A1	LONG FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from insertion to insertion +3 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	401,460,503, 504	43
2021 ENG HE SUPPLY ISO SOL's				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20210100 (2) ENG HE SUPPLY ISO SOL #1	7	84.0	D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from pwr xfr int to insertion +4 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	102,401,460, 503,504	13
20210200 (2) ENG HE SUPPLY ISO SOL #2	7	84.0	D2A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from pwr xfr int to insertion +4 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	102,401,460, 503,504	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
20210300 (2) ENG HE SUPPLY ISO SOL #3	7	84.0	D3A1	LONG FLIGHTS - On from pwr xfer int to insertion +4 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from pwr xfer int to insertion +4 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	102,401,460, 503,504	43
2022 VEH HE SUPPLY ISO SOL's				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20220100 VEH HE SUPPLY ISO SOL #1	7	42.0	D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from pwr xfr int to insertion +4 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	102,401,460, 503,504	13
20220200 VEH HE SUPPLY ISO SOL #2	7	42.0	D2A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min; on from entry interface -2 min to touchdown SHORT FLIGHTS - On from pwr xfr int to insertion +4 min; on from entry interface -2 min to touchdown ALT FLIGHTS - N/A	-	102,401,460, 503,504	28
2023 HE BLOWDN SOL VLV's				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
20230100 HE BLOWDN SOL VLV #1	7	42.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
20230200 HE BLOWDN SOL VLV #2	7	42.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
2024 LO2 PRESS'N FL CNTL SV'S				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
20240100 LO2 PRESS'N FL CNTL SV1	7	42.0	D1A1	LONG FLIGHTS - On from -2 min to +6 min GET	-	201	13
				SHORT FLIGHTS - On from -2 min to +6 min GET			
				ALT FLIGHTS - N/A			
20240200 LO2 PRESS'N FL CNTL SV2	7	42.0	D2A1	LONG FLIGHTS - On from -2 min to +6 min GET	-	201	28
				SHORT FLIGHTS - On from -2 min to +6 min GET			
				ALT FLIGHTS - N/A			
20240300 LO2 PRESS'N FL CNTL SV3	7	42.0	D3A1	LONG FLIGHTS - On from -2 min to +6 min GET	-	201	43
				SHORT FLIGHTS - On from -2 min to +6 min GET			
				ALT FLIGHTS - N/A			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2025 LH2 PRESS'N FL CNTL SV'S				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20250100 LH2 PRESS'N FL CNTL SV1	7	42.0	D1A1	LONG FLIGHTS - On from -2 min to +6 min GET SHORT FLIGHTS - On from -2 min to +6 min GET ALT FLIGHTS - N/A	-	201	13
20250200 LH2 PRESS'N FL CNTL SV2	7	42.0	D2A1	LONG FLIGHTS - On from -2 min to +6 min GET SHORT FLIGHTS - On from -2 min to +6 min GET ALT FLIGHTS - N/A	-	201	28
20250300 LH2 PRESS'N FL CNTL SV3	7	42.0	D3A1	LONG FLIGHTS - On from -2 min to +6 min GET SHORT FLIGHTS - On from -2 min to +6 min GET ALT FLIGHTS - N/A	-	201	43
2027 ET ULLAGE SIG CND PKG's				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20270100 ET ULLAGE SIG CND PKG #1	7	33.3	D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min	-	102,401,460	13

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - On from pwr xfr int to insertion +4 min ALT FLIGHTS - N/A			
20270200 ET ULLAGE SIG CND PKG #2	7	33.3	D2A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min SHORT FLIGHTS - On from pwr xfr int to insertion +4 min ALT FLIGHTS - N/A	-	102,401,460	28
20270300 ET ULLAGE SIG CND PKG #3	7	33.3	D3A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min SHORT FLIGHTS - On from pwr xfr int to insertion +4 min ALT FLIGHTS - N/A	-	102,401,460	43
2028 POINT SENSOR ELECTRONICS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20280000 POINT SENSOR ELECTRONICS	7	115.0	D2A1 D1A1 D3A1	LONG FLIGHTS - On from pwr xfr int to insertion +4 min SHORT FLIGHTS - On from pwr xfr int to insertion +4 min ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	102,401,460	47

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2031 MPS DELTA P (GSE)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20310000 MPS DELTA P (GSE)	7	14.0	A1F3A	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	61
2032 POGO SUPPRESSION SYS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
20320100 POGO SUPPRESSION SYS #1	7	150.0	D1A1	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	13
20320200 POGO SUPPRESSION SYS #2	7	150.0	D2A1	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	28
20320300 POGO SUPPRESSION SYS #3	7	150.0	D3A1	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
21 ORBITAL MANEUVERING SYS							
2102 HE/VAPOR ISO VALVES				FUNCTION: He Iso Valves provides He pressure to fuel and oxidizer tanks during OMS burns; Vapor Iso Valves isolate propellant from the He manifold - during inactive periods prevents N2O4 vapor from mixing with MMH vapor due to leakage through the check valves, during OMS burns operates in conjunction with He Iso Valves to provide pressure to the propellant tanks. Both valves normally closed, opened by "engine on" signal from computer with manual override via switches USAGE: Used for (1) Orbit insertion following ET sep, (2) All on-orbit OMS maneuvers, and (3) Deorbit burn ANALYSIS USAGE:			
21020000 (2) OX HE/VAPOR ISO VL-#1 LP	7	48.0	D2A1 D1A1	LONG FLIGHTS - On for full duration of each OMS burn SHORT FLIGHTS - On for full duration of each OMS burn ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	301,350	15
2103 HE/VAPOR ISO VALVES				FUNCTION: Same as 2102 USAGE: Same as 2102 ANALYSIS USAGE:			
21030000 (2) FUEL HE/VAPOR ISO-#2 LP	7	48.0	D3A1 D1A1	LONG FLIGHTS - On for full duration of each OMS burn	-	301,350	45

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - On for full duration of each OMS burn			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			
2104 HE/VAPOR ISO VALVES				FUNCTION:			
				Same as 2102			
				USAGE:			
				Same as 2102			
				ANALYSIS USAGE:			
21040000 (2) OX HE/VAPOR ISO VL-#1 RP	7	48.0	D2A1 D1A1	LONG FLIGHTS - On for full duration of each OMS burn	-	301,350	15
				SHORT FLIGHTS - On for full duration of each OMS burn			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			
2105 HE/VAPOR ISO VALVES				FUNCTION:			
				Same as 2102			
				USAGE:			
				Same as 2102			
				ANALYSIS USAGE:			
21050000 (2) FUEL HE/VAPOR ISO-#2 RP	7	48.0	D3A1 D2A1	LONG FLIGHTS - On for full duration of each OMS burn	-	301,350	30
				SHORT FLIGHTS - On for full duration of each OMS burn			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2106 OX HE/VAPOR ISO VALVES-PLB				FUNCTION: Same as 2102 except used for auxiliary OMS kit, opened by "engine on" signal when the OMS kit is selected for propellant feed USAGE: Mission unique - Only used when OMS kit is flown ANALYSIS USAGE:			
21060000 (2) OX HE/VAPOR ISO VL-#1 PLB	8	48.0	D2A1 D1A1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	-	15
2107 FUEL HE/VAPOR ISO VALVES-PLB				FUNCTION: Same as 2106 USAGE: Same as 2106 ANALYSIS USAGE:			
21070000 (2) FUEL HE/VAPOR ISO-#2 PLB	8	48.0	D3A1 D2A1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	-	30

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2108 ENG GMBL ACT PITCH				FUNCTION: Controls the thrust vector of the OMS engines in pitch, each actuator driven by 2 motors, one motor has the capacity to drive the actuator USAGE: On 5 min prior to OMS burn for TVC check ANALYSIS USAGE:			
21080100 ENG GMBL ACT PITCH #1-LP	7	134.5	D1A1	LONG FLIGHTS - On from pwr xfr int to insertion; on for all other OMS burns from 5 min prior to burn thru end of burn SHORT FLIGHTS - On from pwr xfr int to insertion; on for all other OMS burns from 5 min prior to burn thru end of burn ALT FLIGHTS - N/A	-	102,301	13
21080200 ENG GMBL ACT PITCH #1-RP	7	134.5	D1A1	LONG FLIGHTS - Same as 21080100 SHORT FLIGHTS - Same as 21080100 ALT FLIGHTS - N/A	-	102,301	13
21080300 ENG GMBL ACT PITCH #2-LP	7	134.5	D2A1	LONG FLIGHTS - Same as 21080100 SHORT FLIGHTS - Same as 21080100 ALT FLIGHTS - N/A	-	102,301	28
21080400 ENG GMBL ACT PITCH #2-RP	7	134.5	D3A1	LONG FLIGHTS - Same as 21080100 SHORT FLIGHTS - Same as 21080100 ALT FLIGHTS - N/A	-	102,301	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2109 ENG GMBL ACT YAW				FUNCTION: Controls the thrust vector of the OMS engines in yaw, each actuator driven by 2 motors, one motor has the capacity to drive the actuator USAGE: On 5 min prior to OMS burn for TVC check ANALYSIS USAGE:			
21090100 ENG GMBL ACT YAW #1-LP	7	134.5	D1A1	LONG FLIGHTS - On from pwr xfr int to insertion; on for all other OMS burns from 5 min prior to burn thru end of burn SHORT FLIGHTS - On from pwr xfr int to insertion; on for all other OMS burns from 5 min prior to burn thru end of burn ALT FLIGHTS - N/A	-	102,301	13
21090200 ENG GMBL ACT YAW #1-RP	7	134.5	D1A1	LONG FLIGHTS - Same as 21090100 SHORT FLIGHTS - Same as 21090100 ALT FLIGHTS - N/A	-	102,301	13
21090300 ENG GMBL ACT YAW #2-LP	7	134.5	D2A1	LONG FLIGHTS - Same as 21090100 SHORT FLIGHTS - Same as 21090100 ALT FLIGHTS - N/A	-	102,301	28
21090400 ENG GMBL ACT YAW #2-RP	7	134.5	D3A1	LONG FLIGHTS - Same as 21090100 SHORT FLIGHTS - Same as 21090100 ALT FLIGHTS - N/A	-	102,301	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2110/2111 TANK ISO VALVES				FUNCTION: Located between the propellant tanks and the engine ball valves, momentary power is required for actuation, normally left open USAGE: Closed for auxiliary kit propellant tank usage and for leak isolation. Can also be used to control propellant flow if 2 engine control ball valves in the same line fail open ANALYSIS USAGE:			
21100100 (2) TANK ISO VLV #1-LEFT POD	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	52
21100200 (2) TANK ISO VLV #2-LEFT POD	7	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	53
2111 TANK ISO VALVES				FUNCTION: See 2110 USAGE: See 2110			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
21110100 (2) TANK ISO VLV #1-RGHT POD	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	52
21110200 (2) TANK ISO VLV #2-RGHT POD	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	54
2112/2113 CROSSFEED VALVES				FUNCTION: Feeds OMS propellants to an interconnect/crossfeed manifold which supplies the other OMS engine or RCS engines, requires momentary power to open USAGE: Used nominally only when OMS propellant usage by RCS thrusters is required. Closed during normal operations but may be used for OMS burns in case of an OMS failure ANALYSIS USAGE:			
21120100 (2) CROSSFEED VL #1-LEFT POD	7	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
21120200 (2) CROSSFEED VL #2-LEFT POD	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	54
2113 CROSSFEED VALVES				FUNCTION: See 2112 USAGE: See 2112 ANALYSIS USAGE:			
21130100 (2) CROSSFEED VL #1-RGHT POD	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	52
21130200 (2) CROSSFEED VL #2-RGHT POD	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	54
2114 THERMAL CNTL HTRS				FUNCTION: To maintain OMS pods within temperature limits (RI) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
21140100 THERMAL CNTL HTR #1	7	700.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
21140200 THERMAL CNTL HTR #2	7	700.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
2116 THERMAL CNTL HTRS-AUX KIT				FUNCTION:			
				To maintain the Aux-Kit(s) within temp limits (RI)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
21160000 THERMAL CNTL HTRS-AUX KIT	9	700.0	D2A1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	-	28
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - N/A			
2119 CROSSFEED LINE HTRS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
21190000 CROSSFEED LINE HTRS	7	50.0	D2A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 24 hrs GET to 400k ft with a 6 hr period and 12.8% duty cycle; BRM 2 - On from 2[illegible] hrs GET to 400k feet with a 6 hr period and 29.3% duty cycle SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A	-	602,603	28
2120 ENGINE HEATERS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
21200100 ENGINE #1 HEATER	7	50.0	D1A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 18 hrs GET to 400k ft with a 6 hr period and 12.8% duty cycle; BRM 2 - On from 18 hrs GET to 400k ft with a 6 hr period and 29.3% duty cycle SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A	-	602,603	13
21200200 ENGINE #2 HEATER	7	50.0	D2A1	LONG FLIGHTS - Same as 21200100 SHORT FLIGHTS - Same as 21200100 ALT FLIGHTS - N/A	-	602,603	28
2121 VALVE POSITION IND				FUNCTION: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
21210000 (16) VALVE POSITION IND	7	6.4	D1A1	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	13
				SHORT FLIGHTS - On from pwr xfr int to pwr xfr ext			
				ALT FLIGHTS - N/A			
2122 VALVE POS IND-AUX KIT				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
21220000 (8) VALVE POS IND-AUX KIT	8	3.2	D1A1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	-	13
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - N/A			
2123 PROP LOW LEVEL SENSORS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
21230100 PROP LOW LEVEL SENSOR #1	7	11.3	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	13
21230200 PROP LOW LEVEL SENSOR #2	7	11.3	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	28
2124 QUANTITY GAGING PROBES				FUNCTION: Used to sense the liquid quantity in each of the propellant tanks (one per tank) USAGE: On during OMS burns and possibly during RCS translation maneuvers ANALYSIS USAGE:			
21240100 QUANTITY GAGING PROBE #1	7	67.0	D1A1	LONG FLIGHTS - On from pwr xfr int to insertion +1 min; on from deorbit -30 min to stoproll +6:30; on from 15 min before each OMS and RCS maneuver till post burn power down SHORT FLIGHTS - On from pwr xfr int to stoproll +6:30 ALT FLIGHTS - N/A	-	102,107,160, 301,302,303, 304,401,416, 504	13
21240200 QUANTITY GAGING PROBE #2	7	67.0	D1A1	LONG FLIGHTS - Same as 21240100 SHORT FLIGHTS - Same as 21240100 ALT FLIGHTS - N/A	-	102,107,160, 301,302,303, 304,401,416, 504	13

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
21240300 (2) QUANT GAGING PROBE #3&4	7	134.0	D1A1	LONG FLIGHTS - Same as 21240100 SHORT FLIGHTS - Same as 21240100 ALT FLIGHTS - N/A	-	102,107,160, 301,302,303, 304,401,416, 504	13
2125/2126 ENG ARMING VLV COILS				FUNCTION: Provides pneumatic pressure to the engine control valves. Each valve has redundant solenoid coils powered from separate sources. Loss of a valve causes loss of an OMS engine. Normally closed USAGE: On (open) from approx 1 min prior to an OMS burn till the end of the burn ANALYSIS USAGE:			
21250100 ENG ARMING VLV COIL #1-LP	7	24.0	D1A1	LONG FLIGHTS - On from 1 min before each OMS burn till the end of the burn SHORT FLIGHTS - On from 1 min before each OMS burn till the end of the burn ALT FLIGHTS - N/A	-	301,350	13
21250200 ENG ARMING VLV COIL #2-LP	7	24.0	D2A1	LONG FLIGHTS - On from 1 min before each OMS burn till the end of the burn SHORT FLIGHTS - On from 1 min before each OMS burn till the end of the burn ALT FLIGHTS - N/A	-	301,350	28
2126 ENG ARMING VLV COILS				FUNCTION: See 2125 USAGE: See 2125			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
21260100 ENG ARMING VLV COIL #1-RP	7	24.0	D1A1	LONG FLIGHTS - On from 1 min before each OMS burn till the end of the burn SHORT FLIGHTS - On from 1 min before each OMS burn till the end of the burn ALT FLIGHTS - N/A	-	301,350	13
21260200 ENG ARMING VLV COIL #2-RP	7	24.0	D3A1	LONG FLIGHTS - On from 1 min before each OMS burn till the end of the burn SHORT FLIGHTS - On from 1 min before each OMS burn till the end of the burn ALT FLIGHTS - N/A	-	301,350	43
2127/2128/2129/2130 ENG CTL VLV COILS				FUNCTION: Supplies pneumatics to open the propellant feed ball valves. Each valve sclencid has redundant windings powered from separate sources. Loss of a valve causes loss of an OMS engine. Normally closed, opened by "engine on" signal from computer USAGE: Used for (1) Orbit insertion following ET sep, (2) All on-orbit OMS maneuvers, and (3) Deorbit burn			
				ANALYSIS USAGE:			
21270100 ENG CTL VLV #1 COIL #1-LP	7	24.0	D1A1	LONG FLIGHTS - On for full duration of each OMS burn SHORT FLIGHTS - On for full duration of each OMS burn ALT FLIGHTS - N/A	-	301,350	13

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F -	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
21270200 ENG CTL VL #1 COIL #2-LP	7	24.0	D2A1	LONG FLIGHTS - On for full duration of each OMS burn SHORT FLIGHTS - On for full duration of each OMS burn ALT FLIGHTS - N/A	-	301,350	28
2128 ENG CTL VLV COILS				FUNCTION: See 2127 USAGE: See 2127 ANALYSIS USAGE:			
21280100 ENG CTL VL #2 COIL #1-LP	7	24.0	D1A1	LONG FLIGHTS - On for full duration of each OMS burn SHORT FLIGHTS - On for full duration of each OMS burn ALT FLIGHTS - N/A	-	301,350	13
21280200 ENG CTL VL #2 COIL #2-LP	7	24.0	D2A1	LONG FLIGHTS - On for full duration of each OMS burn SHORT FLIGHTS - On for full duration of each OMS burn ALT FLIGHTS - N/A	-	301,350	28
2129 ENG CTL VLV COILS				FUNCTION: See 2127 USAGE: See 2127 ANALYSIS USAGE:			
21290100 ENG CTL VL #1 COIL #1-RP	7	24.0	D1A1	LONG FLIGHTS - On for full duration of each OMS burn	-	301,350	13

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	EPF	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	PDL	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - On for full duration of each OMS burn			
				ALT FLIGHTS - N/A			
21290200 ENG CTL VL #1 COIL #2-RP	7	24.0	D3A1	LONG FLIGHTS - On for full duration of each OMS burn	-	301,350	43
				SHORT FLIGHTS - On for full duration of each OMS burn			
				ALT FLIGHTS - N/A			
2130 ENG CTL VLV COILS				FUNCTION:			
				See 2127			
				USAGE:			
				See 2127			
				ANALYSIS USAGE:			
21300100 ENG CTL VL #2 COIL #1-RP	7	24.0	D1A1	LONG FLIGHTS - On for full duration of each OMS burn	-	301,350	13
				SHORT FLIGHTS - On for full duration of each OMS burn			
				ALT FLIGHTS - N/A			
21300200 ENG CTL VL #2 COIL #2-RP	7	24.0	D3A1	LONG FLIGHTS - On for full duration of each OMS burn	-	301,350	43
				SHORT FLIGHTS - On for full duration of each OMS burn			
				ALT FLIGHTS - N/A			
2131/2132 TANK ISO VLV'S-PLB				FUNCTION:			
				Connect to the crossfeed valves interconnect lines between the OMS pods to feed propellant to the OMS engines from the auxiliary kit when used. Opened manually via switches when the OMS kit is selected for propellant feed. Momentary power is required for actuation			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				Mission unique - Only used when OMS kit is flown			
				ANALYSIS USAGE:			
21310100 (2) TANK ISO VLV #1-A PLB	8	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	52
21310200 (2) TANK ISO VLV #1-B PLB	8	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	53
2132 TANK ISO VLV'S-PLB				FUNCTION: See 2131 USAGE: See 2131 ANALYSIS USAGE:			
21320100 (2) TANK ISO VLV #2-A PLB	8	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used	-	-	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible			
21320200 (2) TANK ISO VLV #2-B PLB	8	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - Energy consumption is considered negligible	-	-	54

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22 REACTION CONTROL SYS							
2201 THRUSTER-FWD				FUNCTION: Provide thrust for reaction control. Controlled by computers through the forward reaction jet drivers. Minimum off time between firings is 40 ms; maximum duration of steady state firing is 1200 sec. USAGE: Used during orbital operations for all transfers and attitude maneuvers, first used during ET sep, not used for deorbit. ANALYSIS USAGE:			
22010100 (2) THRUSTER-FWD #1-8	7	112.0	D2F1	LONG FLIGHTS - On 1% of time (usage factor = 1.0%) from MECO +20 sec to insertion; on 0.3% of time (usage factor = 0.3%) from insertion to deorbit; on 50% of time (usage factor = 50.0%) during each RCS maneuver SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Only 2 thrusters used, 22010100 represents 8	-	202,302,303, 305	23
22010200 (4) THRUSTER-FWD #9-12	7	224.0	D1F1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	8
22010300 (2) THRUSTER-FWD #13-14	7	112.0	D3F1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	38

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2202 THRUSTER-AFT				FUNCTION: Same as 2201 except controlled through the aft reaction jet drivers USAGE: Used during orbital operations for all transfer and attitude maneuvers, first used furing ET sep, used for deorbit ANALYSIS USAGE:			
22020100 (4) THRUSTER-AFT #1-6	7	224.0	D2A1	LONG FLIGHTS - On 1% of time (usage factor = 1.0%) from MECO +20 sec to insertion; on 0.3% of time (usage factor = 0.3%) from insertion to deorbit; on 50% of the time (usage factor = 50.0%) during each RCS maneuver; on 1.0% of the time (usage factor = 1.0%) from deorbit to 400,000 feet SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Only 4 thrusters used, 22020100 represents 6	-	202,302,303, 305,502	28
22020200 (12) THRUSTER-AFT #7-18	7	672.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	13
22020300 (6) THRUSTER-AFT #19-24	7	336.0	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
2203 THRUSTER-VERNIER (FWD)				FUNCTION: Provide vernier thrust for reaction control. USAGE: Used for attitude hold for experiment and payload operations ANALYSIS USAGE:			
22030000 (2) THRUSTER-VERNIER (FWD)	7	30.0	D3F1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - 33% usage during powerdown	B	-	38
2204 THRUSTER VERNIER-AFT				FUNCTION: Same as 2203 USAGE: Same as 2203 ANALYSIS USAGE:			
22040100 (2) THRUSTER VERN-AFT #1-2	7	30.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	13
22040200 THRUSTER VERN-AFT #3	7	15.0	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22040300 THRUSTER VERN-AFT #4	7	15.0	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	43
2206 HE ISOL VALVES-FWD				FUNCTION: Isolate the helium pressurant from the RCS fuel and oxidizer tanks when closed. Momentary power required to open or close. USAGE: Opened approx. 2 min prior to ET sep and remain open until just after the deorbit burn ANALYSIS USAGE:			
22060100 (2) HE ISOL VLV #1 - FWD	7	168.0	D2F1 D1F1	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	-	11
22060200 (2) HE ISOL VLV #2 - FWD	7	168.0	D3F1 D2F1	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	-	26
2207 HE ISOL VALVES-LEFT AFT				FUNCTION: Same as 2206			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				Open from approx. 2 min prior to ET sep thru stoproll			
				ANALYSIS USAGE:			
22070100 (2) HE ISOL VLV #1-LEFT AFT D1A1	7	168.0	D2A1	LONG FLIGHTS - Not used (momentary power)	-	-	15
				SHORT FLIGHTS - Not used (momentary power)			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			
22070200 (2) HE ISOL VLV #2-LEFT AFT	7	168.0	D3A1 D1A1	LONG FLIGHTS - Not used (momentary power)	-	-	45
				SHORT FLIGHTS - Not used (momentary power)			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			
2208 HE ISOL VALVES-RGHT AFT				FUNCTION:			
				Same as 2206			
				USAGE:			
				Open from approx. 2 min prior to ET sep thru stoproll			
				ANALYSIS USAGE:			
22080100 (2) HE ISOL VLV #1-RGHT AFT	7	168.0	D2A1 D1A1	LONG FLIGHTS - Not used (momentary power)	-	-	15
				SHORT FLIGHTS - Not used (momentary power)			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22080200 (2) HE ISOL VLV #2-RGHT AFT	7	168.0	D3A1 D2A1	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	-	30
2209 TANK ISO VALVES-FWD				FUNCTION: Isolate the propellant tanks from the manifold isolation valves, provide redundant shutoff capability in case of a failed open thruster. Valves are motor driven. USAGE: Open from approx. 2 min prior to ET sep until just after the deorbit burn ANALYSIS USAGE:			
22090100 (2) TNK ISO VL #1/#3-FWD	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	54
22090200 (2) TNK ISO VL #2/#4/#5-FWD	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	52
2210 TANK ISO VALVES-LEFT AFT				FUNCTION: Same as 2209 USAGE: Open from approx. 2 min prior to ET sep thru stoproll			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
22100100 (2) TNK ISO VL #1/#2-LFT AFT	7	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	53
22100200 (2) TNK ISO VL #3/#4/#5/A-LA	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	52
22100300 (2) TNK ISO VL #3/#4/#5/B-LA	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	54
2211 TANK ISO VALVES-RGHT AFT				FUNCTION: Same as 2209 USAGE: Open from approx. 2 min prior to ET sep thru stoproll ANALYSIS USAGE:			
22110100 (2) TNK ISO VL #1/#2-RHT AFT	7	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22110200 (2) TNK ISO VL #3/#4/#5/A-RA	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	52
22110300 (3) TNK ISO VL #3/#4/#5/B-RA	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	54
2212 MANIFOLD ISO VALVES-FWD				FUNCTION: Located in propellant manifold for each tank downstream from the tank isolation valves. Used to isolate leaks and to isolate failed open thrusters. Valves are motor driven. USAGE: Open from approx 2 min prior to ET sep until just after the deorbit burn ANALYSIS USAGE:			
22120100 (2) MANIFOLD #1 ISO VL-FWD	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	52
22120200 (4) MANIFOLD #2&3 ISO VL-FWD	7	240.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used (momtentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22120300 (2) MANIFOLD #4 ISO VL-FWD	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	54
2213 MANIFOLD ISO VALVES- LFT AFT				FUNCTION: Same as 2212 USAGE: Open from approx. 2 min prior to ET sep thru stoproll ANALYSIS USAGE:			
22130100 (4) MANIFOLD #1&4 ISO VL-LAF	7	240.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A NOTE - MANIFOLD #1 ISO VL-LT AF, (2) 120 watts (OFT)	-	-	52
22130200 (2) MANIFOLD #2 ISO VL-LT AF	7	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	53
22130300 (2) MANIFOLD #3 ISO VL-LT AF	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	54

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22130400 (2) MANIFOLD #4 ISO VL-LT AF	2	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - OFT Unique - Not used in BRM 1 and BRM 2 analyses SHORT FLIGHTS - OFT Unique - Not used in BRM 3A and BRM 3B analyses ALT FLIGHTS - N/A NOTE - Energy Consumption is considered negligible	-	-	52
22130500 (2) MANIFOLD #5 ISO VL LT AF	2	168.0	D3A2 D1A2	LONG FLIGHTS - OFT Unique - Not used in BRM 1 and BRM 2 analyses SHORT FLIGHTS - OFT Unique - Not used in BRM 3A and BRM 3B analyses ALT FLIGHTS - N/A NOTE - Energy Consumption is considered negligible	-	-	45
2214 MANIFOLD ISO VALVES- RGHT AFT				FUNCTION: Same as 2212 USAGE: Open from approx. 2 min prior to ET sep thru stoproll ANALYSIS USAGE:			
22140100 (4) MANIFOLD #1&4 ISO VL-RAF	7	240.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A NOTE - MANIFOLD #1 ISO VL RT-AF, (2), 120.0 watts (OFT)	-	-	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22140200 (2) MANIFOLD #2 ISO VL-RT AF	7	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	53
22140300 (2) MANIFOLD #3 ISO VL-RT AF	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used (momentary power) SHORT FLIGHTS - Not used (momentary power) ALT FLIGHTS - N/A	-	-	54
22140400 (2) MANIFOLD #4 ISO VL RT AF	2	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - OFT Unique - Not used in BRM 1 and BRM 2 analyses SHORT FLIGHTS - OFT unique - Not used in BRM 3A and BRM 3B analyses ALT FLIGHTS - N/A NOTE - Energy Consumption is considered negligible	-	-	52
22140500 (2) MANIFOLD #5 ISO VL-RT-AF	2	158.0	D2A2 D1A2	LONG FLIGHTS - OFT Unique - Not used in BRM 1 and BRM 2 analyses SHORT FLIGHTS - OFT Unique - Not used in BRM 3A and BRM 3B analyses ALT FLIGHTS - N/A NOTE - Energy Consumption is considered negligible	-	-	15
2215 TANK HEATERS-AFT LEFT				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	EFF	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	PDL	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
22150000 (4) TANK HEATERS-AFT LEFT	7	220.0	D2A1 D1A1	LONG FLIGHTS - Not used	-	-	15
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			
2216 TANK HEATERS-AFT RIGHT				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
22160000 (4) TANK HEATERS-AFT RIGHT	7	220.0	D3A1 D2A1	LONG FLIGHTS - Not used	-	-	30
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
				NOTE - Assumed to be dioded load			
2217 MAIN ENG HTRS-FWD				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22170100 (8) MAIN ENG HTRS-FWD #1-B	7	80.0	D2F1	LONG FLIGHTS - Mission unique - BRM 1 - on from 1 hr GET to entry interface with a 6 hr period and 24.9% duty cycle; BRM 2 - on from 1 hr GET to entry interface with a 6 hr period and 56.8% duty cycle SHORT FLIGHTS - On 33%of time (usage factor = 33.0%) from pwr xfr int to pwr xfr ext ALT FLIGHTS - N/A	-	602,603,604, 605	23
22170200 (4) MAIN ENG HTRS-FWD #9-12	7	40.0	D1F1	LONG FLIGHTS - Same as 22170100 SHORT FLIGHTS - Same as 22170100 ALT FLIGHTS - N/A	-	602,603,604, 605	8
22170300 (2) MAIN ENG HTRS-FWD #13-14	7	20.0	D3F1	LONG FLIGHTS - Same as 22170100 SHORT FLIGHTS - Same as 22170100 ALT FLIGHTS - N/A	-	602,603,604, 605	38
2218 MAIN ENG HTRS-AFT				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
22180100 (6) MAIN ENG HTRS-AFT #1-6	7	60.0	D2A1	LONG FLIGHTS - Same as 22170100 SHORT FLIGHTS - Same as 22170100 ALT FLIGHTS - N/A	-	602,603,604, 605	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22180200 (12) MAIN ENG HTRS-AFT #7-18	7	120.0	D1A1	LONG FLIGHTS - Same as 22170100 SHORT FLIGHTS - Same as 22170100 ALT FLIGHTS - N/A	-	602,603,604, 605	13
22180300 (6) MAIN ENG HTRS-AFT #19-24	7	60.0	D3A1	LONG FLIGHTS - Same as 22170100 SHORT FLIGHTS - Same as 22170100 ALT FLIGHTS - N/A	-	602,603,604, 605	43
2219 PROP FEED LINE HTRS-AFT				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
22190000 (8) PROP FEED LINE HTRS-AFT	7	128.0	D2L2 D1L2 D3L2	LONG FLIGHTS - Mission unique - BRM 1 - On from 24 hrs GET to entry interface with a 6 hr period and 12.8% duty cycle; BRM 2 - On from 24 hrs GET to entry interface with a 6 hr period and 29.3% duty cycle SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	602,603	17
2220 PRESS PANEL HEATERS				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
22200000 (4) PRESS PANEL HEATERS	7	80.0	D2L2 D1L2 D3L2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	-	17
2221 FEED SYS HTRS-FWD				FUNCTION: (TBD) USAGE: (TBD)			
				ANALYSIS USAGE:			
22210000 (4) FEED SYS HTRS-FWD	7	640.0	D2F1 D1F1 D3F1	LONG FLIGHTS - Mission unique - BRM 1 - On from 23 hrs GET to entry interface with a 6 hr period and 24.9% duty cycle; BRM 2 - on from 23 hrs GET to entry interface with a 6 hr period and 56.8% duty cycle SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - Assumed to be dioded load	-	602,603	46
2222 VERNIER ENG HTRS-FWD				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
22220000 (2) VERNIER ENG HTRS-FWD	7	10.0	D3F1	LONG FLIGHTS - Mission Unique - BRM 1 - On from 20 min GET to entry interface with a 6 hr period and 24.9% duty cycle; BRM 2 - On from 20 min GET to entry interface with a 6 hr period and 56.8% duty cycle SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A	-	602,603	38
2223 VERNIER ENG HTRS-AFT				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
22230100 VERNIER ENG HTRS-AFT #1	7	5.0	D1A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 20 min GET to entry interface with a 6 hr period and 24.9% duty cycle; BRM 2 - On from 20 min GET to entry interface with a 6 hr period and 56.8% duty cycle SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A	-	602,603	13
22230200 (2) VERNIER ENG HTRS-AFT #2/3	7	10.0	D2A2	LONG FLIGHTS - Same as 22230100 SHORT FLIGHTS - Same as 22230100 ALT FLIGHTS - N/A	-	602,603	29

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22230300 VERNIER ENG HTRS-APT #4	7	5.0	D3A1	LONG FLIGHTS - Same as 22230100	-	602,603	43
				SHORT FLIGHTS - Same as 22230100			
				ALT FLIGHTS - N/A			
2225 INTERCON VALVES				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
22250100 (2) INTERCON VLV #1/#2-LT AF	7	120.0	A2F3B A2F3A A2F3C	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	53
22250200 (2) INTERCON VLV #3/#4/#5-LA	7	120.0	A3F3B A3F3A A3F3C	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	54
2226 INTERCON VALVES				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
22260100 (2) INTERCON VLV #1/#2-RT AF	7	120.0	A1F3B A1F3A A1F3C	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
22260200 (2) INTERCON VLV #3/#4/#5-RA	7	120.0	A2F3B A2F3A A2F3C	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	53
2227 MANIFOLD ISO VLV'S				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
22270100 (2) MAINFOLD ISO VLV-FWD	3	168.0	D3F2 D1F2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	41
22270200 (2) MANIFOLD ISO VLV-LFT AF	3	168.0	D2A2 D1A2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	15
22270300 (2) MANIFOLD ISO VLV-RT AFT	3	168.0	D3A2 D1A2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	45

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
30 POWER GENERATION SYSTEM							
3001 GO2 PURGE VENT HEATERS				FUNCTION: Operates during fuel cell purges to prevent reactant freezing in vent lines USAGE: Operates automatically during fuel cell purging ANALYSIS USAGE:			
30010100 GO2 PURGE VENT HTR #1	7	33.0	D1M1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A	-	415	12
30010200 GO2 PURGE VENT HTR #2	7	33.0	D2M1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	27
3002 GH2 PURGE VENT HTRS				FUNCTION: Operates during fuel cell purges to prevent reactant freezing in vent lines USAGE: Operates automatically during fuel cell purging ANALYSIS USAGE:			
30020100 GH2 PURGE VENT HTR #1	7	61.0	D1M1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	-	415	12

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - N/A			
30020200 GH2 PURGE VENT HTR #2	7	61.0	D2M1	LONG FLIGHTS - Not used	-	-	27
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
3003 H2O RELIEF VENT HTRS				FUNCTION:			
				Maintains temperature control in H2O relief vent to prevent water freezing			
				USAGE:			
				Automatic temperature control during fuel cell use			
				ANALYSIS USAGE:			
30030100 H2O RELIEF VENT HTR #1	4	16.0	D1F1	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	B	101,964	8
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			
				NOTE - 1.0% usage during power down			
30030200 H2O RELIEF VENT HTR #2	4	16.0	D2F1	LONG FLIGHTS - Not used	-	-	23
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
3004 FCP CNTLS & FLOWMETERS				FUNCTION:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
30040100 FCP #1 CNTLS & FLOWMETERS	4	15.0	D1E2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101,964	7
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			
30040200 FCP #2 CNTLS & FLOWMETERS	4	15.0	D2E2	LONG FLIGHTS - Same as 30040100	-	101,964	22
				SHORT FLIGHTS - Same as 30040100			
				ALT FLIGHTS - Same as 30040100			
30040300 FCP #3 CNTLS & FLOWMETERS	4	15.0	D3E2	LONG FLIGHTS - Same as 30040100	-	101,964	37
				SHORT FLIGHTS - Same as 30040100			
				ALT FLIGHTS - Same as 30040100			
3005 FCP PUMP & H2O SENSORS				FUNCTION:			
				Two pumps are used to circulate hydrogen reactant and simultaneously separate water, and circulate coolant through the heat exchangers			
				USAGE:			
				On continuously during FCP usage			
				ANALYSIS USAGE:			
30050100 FCP #1 PUMP & H2O SENSOR	4	150.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	B	101,964	52
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
30050200 FCP #2 PUMP & H2O SENSOR	4	150.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 30050100 SHORT FLIGHTS - Same as 30050100 ALT FLIGHTS - Same as 30050100	-	101,964	53
30050300 FCP #3 PUMP & H2O SENSOR	4	150.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Same as 30050100 SHORT FLIGHTS - Same as 30050100 ALT FLIGHTS - Same as 30050100	-	101,964	54
3006 FCP GO2 PURGE VLVS				FUNCTION: Controls oxygen reactant purging of fuel cells USAGE: Energized to permit purge at preset times or upon crew command ANALYSIS USAGE:			
30060100 FCP #1 GO2 PURGE VLV	4	33.0	D1M1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - Not used NOTE - 1.0% usage during power down	B	415	12
30060200 FCP #2 GO2 PURGE VLV	4	33.0	D2M1	LONG FLIGHTS - Same as 30060100 SHORT FLIGHTS - Same as 30060100 ALT FLIGHTS - Not used	-	415	27

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	EPF	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	PDL	ACTIVITY BLOCKS	LOAD NO.
30060300 FCP #3 GO2 PURGE VLV	4	33.0	D3M1	LONG FLIGHTS - Same as 30060100	-	415	42
				SHORT FLIGHTS - Same as 30060100			
				ALT FLIGHTS - Not used			
3007 FCP GH2 PURGE VLVS				FUNCTION:			
				Controls hydrogen reactant purging of fuel cells			
				USAGE:			
				Energized to permit purge at preset times or upon crew command			
				ANALYSIS USAGE:			
30070100 FCP #1 GH2 PURGE VLV	4	10.0	D1M1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	B	415	12
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - Not used			
				NOTE - 1.0% usage during power down			
30070200 FCP #2 GH2 PURGE VLV	4	10.0	D2M1	LONG FLIGHTS - Same as 30070100	-	415	27
				SHORT FLIGHTS - Same as 30070100			
				ALT FLIGHTS - Not used			
30070300 FCP #3 GH2 PURGE VLV	4	10.0	D3M1	LONG FLIGHTS - Same as 30070100	-	415	42
				SHORT FLIGHTS - Same as 30070100			
				ALT FLIGHTS - Not used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
3008 FCP START & SUST HTRS				FUNCTION: The start and sustain heaters are used to attain fuel cell operating temperature during activation, and to maintain operating temperature during low power consumption periods USAGE: Start htr - on for fuel cell startup, off when fuel cell achieves operating temp; sustaining htr - operates to maintain stack temperature during periods of low power demand ANALYSIS USAGE:			
30080100 FCP #1 START & SUST HTR	4	6000.0	D1G2	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - Not used	-	-	9
30080200 FCP #2 START & SUST HTR	4	6000.0	D2G2	LONG FLIGHTS - Same as 30080100 SHORT FLIGHTS - Same as 30080100 ALT FLIGHTS - Not used	-	-	24
30080300 FCP #3 START & SUST HTR	4	6000.0	D3G2	LONG FLIGHTS - Same as 30080100 SHORT FLIGHTS - Same as 30080100 ALT FLIGHTS - Not used	-	-	39
3015 FCP H2O LINE HTRS				FUNCTION: Prevent water from freezing in the H2O lines leading from the fuel cell GH2 pumps/H2O separators; thermistor controlled			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D U	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				Water temperature will be well above freezing during fuel cell use; water temperature may drop to freezing during long periods of fuel cell inactivity			
				ANALYSIS USAGE:			
30150100 FCP #1 H2O LINE HTR	7	15.0	D2F1	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used	B	-	23
				SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used			
				ALT FLIGHTS - N/A			
30150200 FCP #2 H2O LINE HTR	7	15.0	D3F1	LONG FLIGHTS - Same as 30150100	-	-	38
				SHORT FLIGHTS - Same as 30150100			
				ALT FLIGHTS - N/A			
30150300 FCP #3 H2O LINE HTR	7	15.0	D1F1	LONG FLIGHTS - Same as 30150100	-	-	8
				SHORT FLIGHTS - Same as 30150100			
				ALT FLIGHTS - N/A			
3017 FCP THERMAL CNTL HTRS				FUNCTION:			
				Maintains the end cells in the fuel cell reactor stack at temperatures consistent with the center of the stack; thermistor controlled			
				USAGE:			
				Main use will be ground and/or atmospheric flight; not required for space flight			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
30170100 FCP #1 THERMAL CNTL HTR	7	150.0	D2M2	LONG FLIGHTS - Mission unique - BRM 1 - Not used; BRM 2 - Not used SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - N/A NOTE - EEL indicates D2M1	-	-	27
30170200 FCP #2 THERMAL CNTL HTR	7	150.0	D3M2	LONG FLIGHTS - Same as 30170100 SHORT FLIGHTS - Same as 30170100 ALT FLIGHTS - N/A	-	-	42
30170300 FCP #3 THERMAL CNTL HTR	7	150.0	D1M2	LONG FLIGHTS - Same as 30170100 SHORT FLIGHTS - Same as 30170100 ALT FLIGHTS - N/A NOTE - EEL indicates D1M3	-	-	12
3018 H2O REL VLV HTRS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
30180100 H2O REL VLV #1 HTR	1	1.4	D	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - Assigned to D1M2 for analysis purposes	-	-	27

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
30180200 H2O REL VLV #2 HTR	1	1.4	D	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - Assigned to D2M2 for analysis purposes	-	-	27
30180300 H2O REL VLV #3 HTR	1	1.4	D	NEW COMPONENT - Not used in analysis (4/1/75) NOTE - Assigned to D3M2 for analysis purposes	-	-	42

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
31 CRYOGENICS SYSTEM				NOTE - 31 HI PRESS H2/02 GAS SYS (ALT)			
3101 VAC-ION PWR SUP (GSE)				FUNCTION: Powers a pump that pulls a vacuum between the inner and outer cryo tank shells to verify the integrity of the tank annulus USAGE: On during prelaunch ground support only; no cockpit controls ANALYSIS USAGE:			
31010100 VAC-ION PWR SUP (GSE) #1	7	10.0	A1F3A	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - EEL shows A1G3A	-	-	61
31010200 VAC-ION PWR SUP (GSE) #2	7	10.0	A2F3A	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - EEL shows A2G3A	-	-	64
31010300 VAC-ION PWR SUP (GSE) #3	7	10.0	A3F3A	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - EEL shows A3G3A	-	-	67

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
31010400 VAC-ION PWR SUP (GSE) #4	7	10.0	A3F3A	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	67
3103 SIG CONDS QTY				FUNCTION: Monitor cryo tank quantity remaining, in percent USAGE: On continuously ANALYSIS USAGE:			
31030100 SIG COND QTY #1	7	4.0	D1R1	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	S	101	3
31030200 SIG COND QTY #2	7	4.0	D2R1	LONG FLIGHTS - Same as 31030100 SHORT FLIGHTS - Same as 31030100 ALT FLIGHTS - N/A	S	101	18
31030300 (2) SIG COND QTY #3 & 4	7	8.0	D3R1	LONG FLIGHTS - Same as 31030100 SHORT FLIGHTS - Same as 31030100 ALT FLIGHTS - N/A	S	101	33
3112 SOLENOID VLVS - FCP				FUNCTION: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
31120100 (2) SOLENOID VLV - FCP #1	4	246.0	D1E1	LONG FLIGHTS - Not used	-	-	7
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
31120200 (2) SOLENOID VLV - FCP #2	4	246.0	D2E1	LONG FLIGHTS - Not used	-	-	22
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
31120300 (2) SOLENOID VLV - FCP #3	4	246.0	D3E1	LONG FLIGHTS - Not used	-	-	37
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
3113 SOLENOID VLVS - ECLSS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
31130100 SOLENOID VLV - ECLSS #1	7	123.0	D1M1	LONG FLIGHTS - Not used	-	-	12
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
31130200 SOLENOID VLV - ECLSS #2	7	123.0	D2M1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	27
3115 SOL VLV MANIFOLDS				FUNCTION: Norm open vlvs in operating loop, energized closed for system isolation (RI) USAGE: Only during emergency conditions (RI) ANALYSIS USAGE:			
31150100 (2) SOL VLV MANIFOLD #1 & #4	4	246.0	D1E1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - SOL VLV MANIFOLD #1, 123.0 W, D1M1 (ALT)	-	-	7
31150200 SOL VLV MANIFOLD #2	4	123.0	D2E1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - D2M1 (ALT)	-	-	22
31150300 SOL VLV MANIFOLD #3	4	123.0	D3E1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - D3M1 (ALT)	-	-	37

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
31150400 SOL VLV MANIFOLD #4	1	123.0	D1M1	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	12
3117 HEATERS (OXYGEN)				FUNCTION: The heaters cycle on/off to maintain adequate pressure in the cryo tanks USAGE: Used continuously ANALYSIS USAGE:			
31170100 (2) HEATERS (OXYGEN) SET 1	7	786.0	D2M1	LONG FLIGHTS - Cycles from L/O to pwr xfr ext with a 3 hr period and the following duty cycles: L/O to 041:30:00 - 28.0% 041:30:00 to 083:00:00 - 15.0% 083:00:00 to 124:30:00 - 6.7% 124:30:00 to pwr xfr ext - 5.7% SHORT FLIGHTS - Cycles from L/O to pwr xfr ext with a 30 min period and a 34% duty cycle ALT FLIGHTS - N/A NOTE - 5.7% usage during power down	B	650,651	27
31170200 (2) HEATERS (OXYGEN) SET 2	7	786.0	D3M1	LONG FLIGHTS - Same as 31170100 SHORT FLIGHTS - Same as 31170100 ALT FLIGHTS - N/A	-	650,651	42
31170300 (2) HEATERS (OXYGEN) SET 3	9	786.0	D3M1	LONG FLIGHTS - Same as 31170100	-	650,651	42

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same as 31170100 ALT FLIGHTS - N/A			
3118 HEATERS (HYDROGEN)				FUNCTION: The heaters cycle on/off to maintain adequate pressure in the cryo tanks USAGE: Used continuously ANALYSIS USAGE:			
31180100 (2) HEATERS (HYDROGEN) SET 1	7	165.0	D2M1	LONG FLIGHTS - Cycles from L/O to pwr xfr ext with a 3 hr period and the following duty cycles: L/O to 041:30:00 - 37.5% 041:30:00 to 083:00:00 - 22.7% 083:00:00 to 124:30:00 - 17.3% 124:30:00 to pwr xfr ext - 18.0% SHORT FLIGHTS - Cycles from L/O to pwr xfr ext with a 50 min period and a 50% duty cycle ALT FLIGHTS - N/A NOTE - 15.8% usage during powerdown	B	650,651	27
31180200 (2) HEATERS (HYDROGEN) SET 2	7	165.0	D3M1	LONG FLIGHTS - Same as 31180100 SHORT FLIGHTS - Same as 31180100 ALT FLIGHTS - N/A	-	650,651	42
31180300 (2) HEATERS (HYDROGEN) SET 3	9	165.0	D3M1	LONG FLIGHTS - Same as 31180100 SHORT FLIGHTS - Same as 31180100 ALT FLIGHTS - N/A	-	650,651	42

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
3119 HIGH PRESS S/O VLV (OV-1)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
31190000 (4) HIGH PRESS S/O VLV (OV-1)	1	896.0	D	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used NOTE - Assigned to D2M2 for analysis purposes	-	-	27

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
32 AUX POWER UNIT SYSTEM							
3202 FUEL ISO VLVS				FUNCTION: Isolate the APU fuel tanks from the fuel pumps USAGE: Each valve is opened and closed three times during a nominal mission; the APU is operated during ascent, during descent, and for 2 to 5 minutes on-orbit for checkout ANALYSIS USAGE:			
32020100 FUEL ISO VLV #1	4	40.0	D2A1 D1A1	LONG FLIGHTS - On from 5 minutes prior to liftoff to 5 minutes after MECO; on prior to de-deorbit for 2.5 minute checkout; on from 400,000 feet to 1 minute after stoproll SHORT FLIGHTS - Same ALT FLIGHTS - On from 8 minutes prior to takeoff to stoproll	-	501,505,963	15
32020200 FUEL ISO VLV #2	4	40.0	D3A1 D2A1	LONG FLIGHTS - Same as 32020100 SHORT FLIGHTS - Same as 32020100 ALT FLIGHTS - Same as 32020100	-	501,505,963	30
32020300 FUEL ISO VLV #3	4	40.0	D3A1 D1A1	LONG FLIGHTS - Same as 32020100 SHORT FLIGHTS - Same as 32020100 ALT FLIGHTS - Same as 32020100	-	501,505,963	45
3203 APU CONTROLLERS				FUNCTION: Monitor and control the APU's, shutting the units down in case of turbine overspeed or underspeed			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				On prior to and during APU operations			
				ANALYSIS USAGE:			
32030100 APU #1 CONTROLLER	4	150.0	D2A2 D1A2	LONG FLIGHTS - On from pwr xfr int to 5 minutes after MECO; on for 4.5 minutes prior to deorbit for checkout; on from 2 minutes prior to 400,000 feet until 1 minute after stoproll	-	501,505,963	15
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - On from pwr xfr int until stoproll			
32030200 APU #2 CONTROLLER	4	150.0	D3A2 D2A2	LONG FLIGHTS - Same as 32030100	-	501,505,963	30
				SHORT FLIGHTS - Same as 32030100			
				ALT FLIGHTS - Same as 32030100			
32030300 APU #3 CONTROLLER	4	150.0	D3A2 D1A2	LONG FLIGHTS - Same as 32030100	-	501,505,963	45
				SHORT FLIGHTS - Same as 32030100			
				ALT FLIGHTS - Same as 32030100			
3204 TANK HEATERS				FUNCTION:			
				Maintain hydrazine temperature above 45 degrees F when the APU's are not operating			
				USAGE:			
				Operate when APU's are off; thermostatically controlled			
				ANALYSIS USAGE:			
32040100 TANK HTR #1A-LH SIDE	4	50.0	D1A2	LONG FLIGHTS - Mission unique - BRM 1 - On from 99 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On	-	602,603	14

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				from 99 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - Not used			
32040200 TANK HTR #2A-LH SIDE	4	50.0	D2A2	LONG FLIGHTS - Mission unique - BRM 1 - On from 100 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 100 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - Not used	-	602,603	29
32040300 TANK HTR #3A-RH SIDE	4	50.0	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 101 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 101 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - Not used	-	602,603	43
3205 TANK HEATERS				FUNCTION: Maintain hydrazine temperature above 45.0 degrees F when the APU's are not operating USAGE: Operate when APU's are off; thermostatically controlled			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
32050100 TANK HTR #1B-LH SIDE	4	50.0	D2A2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	29
32050200 TANK HTR #2B-LH SIDE	4	50.0	D3A2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	44
32050300 TANK HTR #3B-RH SIDE	4	50.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	13
3206 APU LINE HEATERS				FUNCTION: Heat lines between the APU fuel isolation valves and the fuel pumps USAGE: Thermostatically controlled but can be turned off by the crew ANALYSIS USAGE:			
32060100 APU LINE HTR #1A	4	50.0	D1A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 20 min GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 20 min GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Mission unique - BRM's 3A and 3B - 25% usage from liftoff until descent to 400,000 feet	-	602,603,604, 605	13

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - Not used			
32060200 APU LINE HTR #2A	4	50.0	D2A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 40 min GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 40 min GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Same as 32060100 ALT FLIGHTS - Not used	-	602,603,604, 605	28
32060300 APU LINE HTR #3A	4	50.0	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 1 hr GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 1 hr GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Same as 32060100 ALT FLIGHTS - Not used	-	602,603,604, 605	43
3207 APU LINE HEATERS				FUNCTION: Heat lines between the APU fuel isolation valves and the fuel pumps USAGE: Thermostatically controlled but can be turned off by the crew ANALYSIS USAGE:			
32070100 APU LINE HTR #1B	4	50.0	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
32070200 APU LINE HTR #2B	4	50.0	D3A2	LONG FLIGHTS - Not used	-	-	44
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
32070300 APU LINE HTR #3B	4	50.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
3208 FUEL QUANTITY GAGES				FUNCTION:			
				Monitor each of the three APU hydrazine tanks for quantity and pressure			
				USAGE:			
				Used continuously			
				ANALYSIS USAGE:			
32080100 FUEL QUANTITY GAGE #1	4	1.0	D2A1 *D1A1 D3A1	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101,964	13
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			
32080200 FUEL QUANTITY GAGE #2	4	1.0	*D2A1 D1A1 D3A1	LONG FLIGHTS - Same as 32080100	-	101,964	28
				SHORT FLIGHTS - Same as 32080100			
				ALT FLIGHTS - Same as 32080100			
32080300 FUEL QUANTITY GAGE #3	4	1.0	D2A1 D1A1 *D3A1	LONG FLIGHTS - Same as 32080100	-	101,964	43
				SHORT FLIGHTS - Same as 32080100			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - Same as 32080100			
3209 APU OIL LINE HEATERS				FUNCTION: Maintain sufficient temperature in APU gear boxes during periods of APU inactivity USAGE: Thermostatically controlled when the APU is not operating ANALYSIS USAGE:			
32090100 APU OIL LINE HTR #1A	4	100.0	D1A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 1 hr GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 1 hr GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Mission unique - BRM's 3A and 3B - 25% usage from liftoff until descent to 400,000 feet ALT FLIGHTS - Not used	-	602,603,604, 605	13
32090200 APU OIL LINE HTR #2A	4	100.0	D2A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 1.5 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 1.5 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Mission unique - BRM's 3A and 3B - 25% usage from liftoff until descent to 400,000 feet ALT FLIGHTS - Not used	-	602,603,604, 605	28
32090300 APU OIL LINE HTR #3A	4	100.0	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 2.0 hrs GET until descent to 400,000 feet,	-	602,603,604 605	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				period = 6.0 hrs, duty cycle = 18.9%; BRM 2 - On from 2.0 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0%			
				SHORT FLIGHTS - Mission unique - BRM's 3A and 3B - 25% usage from liftoff until descent to 400,000 feet			
				ALT FLIGHTS - Not used			
32090400 APU OIL LINE HTR #1B	4	100.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
32090500 APU OIL LINE HTR #2B	4	100.0	D3A1	LONG FLIGHTS - Not used	-	-	43
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
32090600 APU OIL LINE HTR #3B	4	100.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - D3A1 (ALT)			
3210 APU TURBINE HEATERS				FUNCTION:			
				Control the temperature of the APU catalytic beds and the two controlled shut off valves between the hydrazine pumps and the catalytic beds			
				USAGE:			
				On prior to APU startup as a minimum and off during APU operation			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
32100100 APU TURBINE VLV HTR #1A	4	68.3	D1A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 65.0 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 65.0 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - 63% usage from pwr xfr int to 8 minutes prior to takeoff	-	602,603,951	13
32100200 APU TURBINE VLV HTR #2A	4	68.3	D2A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 65.0 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 66.0 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle - 43.0% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - 63% usage from pwr xfr int to 8 minutes prior to takeoff	-	602,603,951	28
32100300 APU TURBINE VLV HTR #3A	4	68.3	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 67.0 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 18.9%; BRM 2 - On from 67.0 hrs GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 43.0% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - 63% usage from pwr xfr int to 8 minutes prior to takeoff	-	602,603,951	43
32100400 APU TURBINE VLV HTR #1B	4	68.3	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used	-	-	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - Not used			
32100500 APU TURBINE VLV HTR #2B	4	68.3	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - D1A1 (ALT)	-	-	43
32100600 APU TURBINE VLV HTR #3B	4	68.3	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	13
3211 APU TURB GAS GEN HTR				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
32110100 APU #1A TURB GAS GEN HTR	4	68.3	D1A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 20.0 min GET until descent to 400,000 feet, period = 6.0 hrs, duty cycle = 30.2%; BRM 2 - On from 20.0 min GET until descent to 400,000 feet, period = 6.0 hrs, duty cycle = 68.8% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - 63% usage from pwr xfr int to 3 minutes prior to takeoff NOTE - APU #1 TURB GAS GEN HTR, D2A1/D1A1/D3A1 (ALT)	-	602,603,951	13

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
32110200 APU #2A TURB GAS GEN HTR	4	68.3	D2A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 40.0 min GET until descent to 400,000 feet, period = 6.0 hrs, duty cycle = 30.2%; BRM 2 - On from 40.0 min GET until descent to 400,000 feet, period = 6 hrs, duty cycle = 68.8% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - 63% usage from pwr xfr int to 8 minutes prior to takeoff NOTE - APU #2 TURB GAS GEN HTR, D2A1/D1A1/D3A1 (ALT)	-	602,603,951	28
32110300 APU #3A TURB GAS GEN HTR	4	68.3	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 1.0 hrs GET until descent to 400,000 feet, period = 6.0 hrs, duty cycle = 30.2%; BRM 2 - On from 1.0 hrs GET until descent to 400,000 feet, period = 6.0 hrs, duty cycle = 68.8% SHORT FLIGHTS - Mission unique - BRM 3A - Not used; BRM 3B - Not used ALT FLIGHTS - 63% usage from pwr xfr int to 8 minutes prior to takeoff NOTE - APU #3 TURB GAS GEN HTR, D2A1/D1A1/D3A1 (ALT)	-	602,603,951	43
32110400 APU #1B TURB GAS GEN HTR	7	68.3	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	28
32110500 APU #2B TURB GAS GEN HTR	7	68.3	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
32110600 APU #3B TURB GAS GEN HTR	7	68.3	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	13
3212 SERVICE LINE HEATERS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
32120100 SERVICE LINE HTR #1	4	50.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	13
32120200 SERVICE LINE HTR #2	4	50.0	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	28
32120300 SERVICE LINE HTR #3	4	50.0	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	43

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
40 ENVIR CONTROL & LIFE SUP							
4001 CABIN FANS				FUNCTION: Recirculate cabin air through flight deck for air temperature and humidity control USAGE: Normal duty cycle requires one fan operating for all mission phases ANALYSIS USAGE:			
40010100 CABIN FAN #1	7	500.0	A1F3C A1F3B A1F3A	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Not used	B	101	52
40010100 CABIN FAN A	1	500.0	A3F3C A3F3B A3F3A	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	54
40010200 CABIN FAN B	1	500.0	A2F3C A2F3B A2F3A	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	53
40010210 CABIN FAN #2	7	500.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
40010310 CABIN FAN #3	7	500.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	54
4002 WATER PUMP PACKAGES				FUNCTION: Recirculate water through the water coolant loop, providing cool air to the cabin and the 3 fwd avionics bays USAGE: One primary pump on continuously ANALYSIS USAGE:			
40020100 WATER PUMP PKG PRI A	4	270.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Not used	B	101	52
40020200 WATER PUMP PKG PRI B	1	270.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	53
40020210 WATER PUMP PKG PRI B	7	270.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	53
40020300 WATER PUMP PKG SEC	4	270.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	54

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
4003 CABIN PRESS CNTLS				FUNCTION: Control nitrogen/oxygen proportion in cabin by varying amount of nitrogen USAGE: One controller is always on during a mission ANALYSIS USAGE:			
40030000 CABIN PRESS CNTL SYSTEM	7	84.0	D1F2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	B	101	9
4003001 CABIN PRESS CNTL-AIRLK SP	7	30.6	D1F2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	9
40030020 CABIN PRESS CNTL-EMERG MD	7	23.0	D1F2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	9
4005 AVIONICS FANS				FUNCTION: Circulate air through the water heat exchanger for cooling the air, then into the avionics compartments for cooling equipment USAGE: One fan is used for each compartment for normal operations			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	EPF	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	PDL	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
40050100 AVIONICS FANS - BAY 1A	4	180.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	B	101,964	52
40050200 AVIONICS FANS - BAY 1B	1	180.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	53
40050210 AVIONICS FANS - BAY 1B	7	180.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	53
40050300 AVIONICS FANS - BAY 2A	4	180.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	-	101,964	53
40050400 AVIONICS FANS - BAY 2B	1	180.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	54
40050410 AVIONICS FANS - BAY 2B	7	180.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	54

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
40050500 AVIONICS FANS - BAY 3A	4	180.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	-	101,964	54
40050600 AVIONICS FANS - BAY 3B	1	180.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	52
40050610 AVIONICS FANS - BAY 3B	7	180.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS _ N/A	-	-	52
4006 H2O SEPARATORS (ARS)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
40060100 H2O SEPARATOR (ARS) #1	7	40.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	101	52
40060210 H2O SEPARATOR (ARS) #2	7	40.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	964	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
40060310 H2O SEPARATOR (ARS) #3	7	40.0	A3P3B A3P3A A3P3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	54
4007 CABIN HEATERS				FUNCTION: Provide temperature control of air entering cabin USAGE: Normally, one heater can provide adequate heat with the other two providing double redundancy ANALYSIS USAGE:			
40070100 CABIN HEATER #1	4	333.3	D1F2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - On from takeoff to stoproll	-	963	9
40070200 CABIN HEATER #2	4	333.3	D2F2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - D1F2 (ALT)	-	-	24
40070300 CABIN HEATER #3	4	333.3	D3F2	LONG FLIGHTS - On during crew sleep periods SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - D1F2 (ALT)	-	601	39

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
4008 INSTRUMENTS & CONTROLS (ARS)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
40080000 INSTR & CNTLS (ARS)	4	47.0	A1F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	B	101,964	63
4009 IMU HX ASSEMBLY FANS				FUNCTION: Provide cooling to IMU's (RI) USAGE: One of three fans runs continuously (RI) ANALYSIS USAGE:			
40090100 IMU HX ASSY FAN #1	4	70.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Not used NOTE - 180.0 watts (ALT)	-	101	52
40090200 IMU HX ASSY FAN #2	1	180.0	A2F3A A2F3B A2F3C	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
40090210 IMU HX ASSY FAN #2	7	70.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	53
40090300 IMU HX ASSY FAN #3	1	180.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	54
40090310 IMU HX ASSY FAN #3	7	70.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	54
4010 OVEN HEATERS				FUNCTION: Used with food management system for heating food USAGE: (TBD) ANALYSIS USAGE:			
40100100 OVEN HEATER #1	7	150.0	D1F2	LONG FLIGHTS - On for one hour commencing 30 minutes prior to start of each crew eat period SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	412	9
40100210 OVEN HEATER #2	7	150.0	D3F2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	39

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
4011 INST & CNTLS-OVEN FANS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
40111100 INST & CNTLS-OVEN FAN #1	7	5.0	D2L2	LONG FLIGHTS - On for one hour commencing 30 minutes prior to start of each crew eat period SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Only 1 used, 40111100 represents 2	-	412	17
40111210 INST & CNTLS-OVEN FAN #2	7	5.0	D3L2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Only 1 used, 40111210 represents 2	-	-	32
40112100 INST & CNTLS-OVEN FAN #1	7	95.0	A2F3C	LONG FLIGHTS - Same as 40111100 SHORT FLIGHTS - Same as 40111100 ALT FLIGHTS - N/A NOTE - Only 1 used, 40112100 represents 2	-	412	66
40112210 INST & CNTLS-OVEN FAN #2	7	95.0	A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A NOTE - Only 1 used, 40112210 represents 2	-	-	69

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
4012 WATER HEATERS				FUNCTION: Provide hot water to crew for food management purposes USAGE: (TBD) ANALYSIS USAGE:			
40120100 WATER HEATER #1	7	1850.0	D1F1	LONG FLIGHTS - On for 39 minutes during each crew eat period SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	412	8
40120210 WATER HEATER #2	7	1850.0	D2F1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	23
4013 DUMP NOZZLE - WATER				FUNCTION: Prevents water from freezing in the water dump nozzle by maintaining water temperature above freezing USAGE: Used continuously ANALYSIS USAGE:			
40130000 DUMP NOZZLE - WATER	7	10.0	D2L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	W	101	17

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
4014 INSTR & CNTLS (WATER)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
40141000 INSTR & CNTLS (WATER)	7	10.0	D1L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	W E	101	2
40142000 INSTR & CNTLS (WATER)	7	12.0	A1F3B	LONG FLIGHTS - Same as 40141000 SHORT FLIGHTS - Same as 40141000 ALT FLIGHTS - N/A	W E	101	62
4016 SOLIDS COLLECTION SLINGR				FUNCTION: Separates solid and liquid waste and provides storage of solids USAGE: Activation is from just prior to use to one minute afterward ANALYSIS USAGE:			
40160000 SOLIDS COLLECTION SLINGR	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - On five minutes after start of each waste management period until end of period SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - 41.6% usage during powerdown waste management	W	413	54

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
4017 WATER SEP-LIFE SUPPORT				FUNCTION: Separates urine and air USAGE: Turned on with use and left on until one minute after use ANALYSIS USAGE:			
40170000 WATER SEP-LIFE SUPPORT	7	100.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - On during each waste management period SHORT FLIGHTS - Same ALT FLIGHTS - N/A	W	413	54
4018 DUMP NOZZLE - URINE				FUNCTION: Provides heat to urine dump nozzle to prevent freezing in line USAGE: Activated by crew prior to waste tank dump ANALYSIS USAGE:			
40180000 DUMP NOZZLE - URINE	7	10.0	D3L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	W	101	32
4019 INST & CNTLS (WASTE)				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
40190000 INST & CNTLS (WASTE)	7	10.0	D2L2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - N/A	W	101	17
4020 SMOKE DET SENSRS				FUNCTION: (TBD) USAGE: On continuously ANALYSIS USAGE:			
40200100 (2) SMOKE DET SENSR-FLT/MID	4	10.0	D3R2 *D1R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	-	101,964	4
40200200 (2) SMOKE DET SENSR-BAY A1	4	10.0	D3R2 *D2R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	-	101,964	19
40200300 (2) SMOKE DET SENSR-BAY A2	4	10.0	*D3R2 D1R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same ALT FLIGHTS - Same	-	101,964	34
40200400 (2) SMOKE DET SENSR-BAY A3	4	10.0	D2R2 *D1R2	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext SHORT FLIGHTS - Same	-	101,964	4

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - Same			
4021 SMOKE DET ALARM				FUNCTION: Signals presence of smoke in shuttle atmosphere (RI) USAGE: (TBD) ANALYSIS USAGE:			
40210000 SMOKE DET ALARM	4	0.5	D1R2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	4
4027 FLASH EVAP HEATERS				FUNCTION: Provide heat to nozzle valves to prevent water freezing USAGE: (TBD) ANALYSIS USAGE:			
40270100 FLASH EVAP HTR #1	7	310.0	D1F2	LONG FLIGHTS - Mission unique - BRM 1 - On from 1.0 hrs GET until descent to 400,000 feet, period = 6.0 hrs, duty cycle = 27.8%; BRM 2 - On from 1.0 hrs GET until descent to 400,000 feet, period = 6.0 hrs, duty cycle = 86.0% SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	602,603	9
40270200 FLASH EVAP HTR #2	7	310.0	D2F2	LONG FLIGHTS - Same as 40270100	-	602,603	24

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
4028 FLASH EVAP EL				FUNCTION:			
				Control metering valves in the flash evaporators for temperature control			
				USAGE:			
				The evaporators are used from 100,000 feet to radiator deployment, and from the start of entry to 100,000 feet; also used to reject excess water generated by the fuel cells			
				ANALYSIS USAGE:			
40280100 FLASH EVAP EL #1	7	8.0	D1L2	LONG FLIGHTS - On from MECO until descent to approximately 100,000 feet	-	103,202,502, 503	2
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
				NOTE - Activity block time corresponds to 100,000 ft on BRM 2			
40280200 FLASH EVAP EL #2	7	8.0	D2L2	LONG FLIGHTS - Not used	-	-	17
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
4029 FREON PUMPS				FUNCTION:			
				Recirculate freon coolant throughout the orbiter for heat removal from the various systems and transfer to the radiators, ammonia system, and flash evaporators			
				USAGE:			
				Used continuously			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	EF F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	PDL	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
40290100 FREON PUMP LOOP 1-A ASC	4	500.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On from pwr xfr int to insertion and from closing of payload bay doors to pwr xfr ext	B	102,730,740, 750,760,964	52
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - On from pwr xfr int to pwr xfr ext			
40290120 FREON PUMP LOOP 1-A 6 PL	7	420.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On from insertion to closing of payload bay doors	-	730,740,750, 760	52
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
40290130 FREON PUMP LOOP 1-A 8 PL	7	460.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used	-	-	52
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
40290210 FREON PUMP LOOP 1-B ASC	4	500.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used	-	-	54
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
40290220 FREON PUMP LOOP 1-B 6 PL	7	420.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used	-	-	54
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
40290230 FREON PUMP LOOP 1-B 8 PL	7	460.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used	-	-	54
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
40290300 FREON PUMP LOOP 2-A ASC	4	500.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 40290100 SHORT FLIGHTS - Same as 40290100 ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	102,730,740, 750,760,964	53
40290320 FREON PUMP LOOP 2-A 6 PL	7	420.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 40290120 SHORT FLIGHTS - Same as 40290120 ALT FLIGHTS - N/A	-	730,740,750, 760	53
40290330 FREON PUMP LOOP 2-A 8 PL	7	460.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	53
40290410 FREON PUMP LOOP 2-B ASC	4	500.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	54
40290420 FREON PUMP LOOP 2-B 6 PL	7	420.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	54
40290430 FREON PUMP LOOP 2-B 8 PL	7	460.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	54

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
4030 SPACE RADIATOR SYS				FUNCTION: Two freon loops remove heat from the orbiter systems and reject heat overboard via the space radiator system; two loops provide redundancy USAGE: Used for orbital operations; deployment occurs with payload bay door deployment ANALYSIS USAGE:			
40300100 SPACE RAD SYS #1	7	10.0	D1L1	LONG FLIGHTS - On from insertion to closing of payload bay doors SHORT FLIGHTS - Same ALT FLIGHTS - N/A	B	730,740,750, 760	1
40300200 SPACE RAD SYS #2	7	10.0	D2L1	LONG FLIGHTS - Same as 40300100 SHORT FLIGHTS - Same as 40300100 ALT FLIGHTS - N/A	-	730,740,750, 760	16
4031 AMMONIA BOILER SYS				FUNCTION: Perform heat rejection functions during re-entry and other atmospheric flight regimes USAGE: Activated at 100,000 feet and used until 15 minutes after landing ANALYSIS USAGE:			
40310100 AMMONIA BOILER SYS #1	4	30.0	D1L2	LONG FLIGHTS - On from 30 minutes prior to deorbit until 6.5 minutes after stoproll	-	107,416,461, 504,963,965	2

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - On from pwr xfr int to 12.0 minutes after stoproll			
40310200 AMMONIA BOILER SYS #2	4	30.0	D2L2	LONG FLIGHTS - Same as 40310100	-	107,416,461, 504,963,965	17
				SHORT FLIGHTS - Same as 40310100			
				ALT FLIGHTS - Same as 40310100			
4034 LCG COOLANT PUMPS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
40340100 LCG COOLANT PUMP #1	7	0.0	D1F2	LONG FLIGHTS - Not used (zero power)	-	-	9
				SHORT FLIGHTS - Not used (zero power)			
				ALT FLIGHTS - N/A			
40340200 LCG COOLANT PUMP #2	7	0.0	D2F2	LONG FLIGHTS - Not used (zero power)	-	-	24
				SHORT FLIGHTS - Not used (zero power)			
				ALT FLIGHTS - N/A			
4035 FREON PROPOR VALVES				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
40350100 FREON PROPOR VALVE #1	4	67.0	D3L2	LONG FLIGHTS - Not used	-	-	32
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
40350200 FREON PROPOR VALVE #2	4	67.0	D2L2	LONG FLIGHTS - Not used	-	-	17
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
4036 PRESS SUIT VENTIL SYS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
40360100 PRESS SUIT VENTIL SYS	2	126.0	D1F2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	9
40360200 PRESS SUIT VENTIL SYS	2	126.0	D2F2	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	24

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
50 HYDRAULICS POWER SYSTEM							
5001 LG EXTEND VALVE				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
50010000 LG EXTEND VALVE	4	20.0	D1F2	LONG FLIGHTS - On from approx. 15,000 feet during descent to 6.5 minutes after stoproll SHORT FLIGHTS - Same ALT FLIGHTS - Not used NOTE - Activity block time corresponds to start of prefinal approach phase	-	504	9
5002 MLG UPLOCK VALVES				FUNCTION: Control hydraulic pressure to the main landing gear uplock actuators; energized position provides pressure to effect landing gear release USAGE: (TBD) ANALYSIS USAGE:			
50020100 MLG UPLOCK VALVE #1	4	20.0	D2F2	LONG FLIGHTS - On from approx. 15,000 feet during descent to 6.5 min after stoproll SHORT FLIGHTS - Same ALT FLIGHTS - Not used NOTE - Activity block time corresponds to start of prefinal approach phase	-	504	24

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
50020200 MLG UPLOCK VALVE #2	4	20.0	D2F2	LONG FLIGHTS - Same as 50020100 SHORT FLIGHTS - Same as 50020100 ALT FLIGHTS - Not used	-	504	24
50020300 (2) MLG UPLOCK VALVE #3 & 4	4	40.0	D3F2	LONG FLIGHTS - Same as 50020100 SHORT FLIGHTS - Same as 50020100 ALT FLIGHTS - Not used NOTE - MLG UPLOCK VALVE #3, 20.0 watts (ALT)	-	504	39
50020400 MLG UPLOCK VALVE #4	1	20.0	D3F2	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	39
5003 LDG GEAR DUMP VALVES				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
50030100 LG DUMP VALVE #1	4	20.0	D3F2	LONG FLIGHTS - On from approx 15,000 feet during descent to 6.5 min after stoproll SHORT FLIGHTS - Same ALT FLIGHTS - Not used NOTE - (1) Activity block time corresponds to start of prefinal approach phase (2) D3F2/D2F2 (ALT)	-	504	39

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
50030200 LG DUMP VALVE #2	4	20.0	D2F2	LONG FLIGHTS - Same as 50030100 SHORT FLIGHTS - Same as 50030100 ALT FLIGHTS - Not used NOTE - D2F2/D1F2 (ALT)	-	504	24
5004 LG RETRACT CIRC VLV				FUNCTION: Energized (open) position permits hydraulic flow to the nose landing gear up actuators and locking actuators; de-energized (closed) position blocks hydraulic pressure; also used for on-orbit hydraulic fluid thermal control USAGE: Probably energized (open) most of the orbital mission, but de-energized for landing ANALYSIS USAGE:			
50040000 LG RETRACT CIRC VLV	4	20.0	D2F2 D1F2	LONG FLIGHTS - On from 5 hrs GET until descent to 400,000 feet SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - Assumed to be dioded load	-	602,603	11
5005 REDUNDANT SHUTOFF VALVE				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
50050000 REDUNDANT SHUTOFF VALVE	4	20.0	D1F2	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - D2F2 (ALT)	-	-	9
5006 MAIN PUMP DEPRESS VALVES				FUNCTION: Energized (open) position reduces the load on the hydraulic pump via a relief valve so that the startup torque is reduced; following APU startup, the valve is de-energized (closed) USAGE: On only for APU startup for only a few seconds normally ANALYSIS USAGE:			
50060100 MAIN PUMP #1 DEPRESS VLV	4	26.0	D2A2 *D1A2	LONG FLIGHTS - On for one minute at liftoff minus six minutes; on for 1 min 5 sec at deorbit minus 18.5 min; on for 1 min 5 sec commencing 1 min prior to descent to 400,000 feet SHORT FLIGHTS - Same ALT FLIGHTS - Not used	-	501,505	14
50060200 MAIN PUMP #2 DEPRESS VLV	4	26.0	D3A2 *D2A2	LONG FLIGHTS - Same as 50060100 SHORT FLIGHTS - Same as 50060100 ALT FLIGHTS - Not used	-	501,505	29
50060300 MAIN PUMP #3 DEPRESS VLV	4	26.0	D1A2 *D3A2	LONG FLIGHTS - Same as 50060100	-	501,505	44

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same as 50060100			
				ALT FLIGHTS - Not used			
5007							
CIRC MOTOR PUMPS				FUNCTION:			
				Circulates hydraulic fluid during orbital coast periods for thermal control purposes			
				USAGE:			
				Normally controlled by a timed sequence from the computer of about 25% to 33% duty cycle (15-20 min on, 45-40 min off) after the average fluid temperature drops to about 50° F; not used during APU operations			
				ANALYSIS USAGE:			
50070100 CIRC MOTOR PUMP #1	4	1944.0	D1A1	LONG FLIGHTS - On from 5 hrs GET to 400,000 feet with a 9 hr period and 33.3% duty cycle	-	602,603	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
50070200 CIRC MOTOR PUMP #2	4	1944.0	D2A1	LONG FLIGHTS - On from 8 hrs GET to 400,000 feet with a 9 hr period and 33% duty cycle	-	602,603	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
50070300 CIRC MOTOR PUMP #3	4	1944.0	D3A1	LONG FLIGHTS - On from 11 hrs GET to 400,000 feet with a 9 hr period and 33% duty cycle	-	602,603	43
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F -	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5008 RESERVOIR VOLUME SENSORS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
50080100 RESERVOIR #1 VOL SENSOR	4	8.0	A1F3B	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	62
50080200 RESERVOIR #2 VOL SENSOR	4	8.0	A2F3B	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	65
50080300 RESERVOIR #3 VOL SENSOR	4	8.0	A3F3B	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	964	68
5009 SSME SYSTEM S/O VALVES				FUNCTION: Permits hydraulic fluid flow to the SSME controls (TVC and feed valves); energized position (closed) isolates these lines from hydraulic system USAGE: Energized from post MPS propellant dump to landing			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
50090100 SSME #1 SYS S/O VALVE	7	20.0	D1A1	LONG FLIGHTS - On from 30 min prior to deorbit to 6 min 30 sec after stoprcll	-	107,416,461, 504	13
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
50090200 SSME #2 SYS S/O VALVE	7	20.0	D2A1	LONG FLIGHTS - Same as 50090100	-	107,416,461, 504	28
				SHORT FLIGHTS - Same as 50090100			
				ALT FLIGHTS - N/A			
50090300 SSME #3 SYS S/O VALVE	7	20.0	D3A1	LONG FLIGHTS - Same as 50090100	-	107,416,461, 504	43
				SHORT FLIGHTS - Same as 50090100			
				ALT FLIGHTS - N/A			
5010 ELEVON HEATER BLANKETS				FUNCTION:			
				Provides temperature control for each of 4 elevons during orbital coast period; presumably thermostatically controlled			
				USAGE:			
				Active during crbital coast period			
				ANALYSIS USAGE:			
50100100 (1) LI ELEVON HTR BKT #1/#2	4	50.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - Only 1 is to be used, 50100100 represents 2			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
50100200 (1) LO ELEVON HTR BKT #1/#2	4	50.0	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - Only 1 is to be used, 50100200 represents 2	-	-	28
50100300 (1) RI ELEVON HTR BKT #1/#2	4	50.0	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - Only 1 is to be used, 50100300 represents 2	-	-	43
50100400 (1) RO ELEVON HTR BKT #1/#2	4	50.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - Only 1 is to be used, 50100400 represents 2	-	-	13
5011 H2O BOILER STEAM S/O VALVES				FUNCTION: Controlled by a temperature sensor such that it is opened whenever the water temperature exceeds 100° F USAGE: Temperature control is enabled whenever the APU is running and disabled when the APU is off ANALYSIS USAGE:			
50110100 H2O BOILER #1 STM S/O VLV	4	20.0	A1F3A	LONG FLIGHTS - On from 4 min prior to liftoff to 5 min after MECO; on for 1 min 30 sec during	-	501,505,963	61

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				APU checkout (prior to deorbit); on during descent from 1 min after APU startup to 1 min after stoproll			
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - On from 8 min prior to liftoff to APU turnoff at stoproll			
50110200 H2O BOILER #2 STM S/O VLV	4	20.0	A2F3A	LONG FLIGHTS - Same as 50110100	-	501,505,963	64
				SHORT FLIGHTS - Same as 50110100			
				ALT FLIGHTS - Same as 50110100			
50110300 H2O BOILER #3 STM S/O VLV	4	20.0	A3F3A	LONG FLIGHTS - Same as 50110100	-	501,505,963	67
				SHORT FLIGHTS - Same as 50110100			
				ALT FLIGHTS - Same as 50110100			
5012 H2O BOILER XFER VALVES				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50120100 H2O BOILER #1 XFER VLV	4	50.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
50120200 H2O BOILER #2 XFER VLV	4	50.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - Not used			
50120300 H2O BOILER #3 XFER VLV	4	50.0	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used	-	-	28
5013 H2O BOILER THERM CNTL VALVES				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
50130100 H2O BLR #1 THERM CNTL VLV	4	20.0	A1F3C	LONG FLIGHTS - On from 2 min GET to 5 min after MECO; 25% usage for 30 sec during APU checkout (prior to deorbit); 25% usage during descent from 2 min after APU startup to 1 minute after stoproll SHORT FLIGHTS - Same ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	501,505,964	63
50130200 H2O BLR #2 THERM CNTL VLV	4	20.0	A2F3C	LONG FLIGHTS - Same as 50130100 SHORT FLIGHTS - Same as 50130100 ALT FLIGHTS - Same as 50130100	-	501,505,964	66
50130300 H2O BLR #3 THERM CNTL VLV	4	20.0	A3F3C	LONG FLIGHTS - Same as 50130100 SHORT FLIGHTS - Same as 50130100 ALT FLIGHTS - Same as 50130100	-	501,505,964	66

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5014 H2O BOILER ELECT CONT				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
50140100 H2O BLR #1 ELECT CONT	4	7.0	A1F3A	LONG FLIGHTS - On from 5 min prior to liftoff to 5 min after MECO; on for 2 min 30 sec during APU checkout (prior to deorbit); on during descent from APU startup at 400,000 feet until 1 minute after stoproll SHORT FLIGHTS - Same ALT FLIGHTS - On from pwr xfr int to pwr xfr ext	-	501,505,964	61
50140200 H2O BLR #2 ELECT CONT	4	7.0	A2F3A	LONG FLIGHTS - Same as 50140100 SHORT FLIGHTS - Same as 50140100 ALT FLIGHTS - Same as 50140100	-	501,505,964	64
50140300 H2O BLR #3 ELECT CONT	4	7.0	A3F3A	LONG FLIGHTS - Same as 50140100 SHORT FLIGHTS - Same as 50140100 ALT FLIGHTS - Same as 50140100	-	501,505,964	67
5015 H2O BOILER HEATERS				FUNCTION: Used during orbital coast periods to keep water above about 50° F USAGE: Either manually or thermostatically controlled			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
50150100 H2O BOILER #1 HEATER	4	100.0	D1A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 1 hr GET to 400,000 feet with 6 hr period and 23.4% duty cycle; BRM 2-on from 1 hr GET to 400,000 feet with 6 hr period and 53.3% duty cycle	-	602,603	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
50150200 H2O BOILER #2 HEATER	4	100.0	D2A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 1 hr, 30 min GET to 400,000 feet with 6 hr period and 23.4% duty cycle; BRM 2 - On from 1 hr, 30 min GET to 400,000 feet with 6 hr period and 53.3% duty cycle	-	602,603	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
50150300 H2O BOILER #3 HEATER	4	100.0	D3A1	LONG FLIGHTS - Mission unique - BRM 1 - On from 2 hrs GET to 400,000 feet with 6 hr period and 23.4% duty cycle; BRM 2- On from 2 hrs GET to 400,000 with 6 hr period and 53.3% duty cycle	-	602,603	43
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
5016 H2O BOILER QTY GAGES				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50160100 H2O BOILER #1 QTY GAGE	4	5.0	A1F3C	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101,964	63

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			
50160200 H2O BOILER #2 QTY GAGE	4	5.0	A2F3C	LONG FLIGHTS - Same as 50160100	-	101,964	66
				SHORT FLIGHTS - Same as 50160100			
				ALT FLIGHTS - Same as 50160100			
50160300 H2O BOILER #3 QTY GAGE	4	5.0	A3F3C	LONG FLIGHTS - Same as 50160100	-	101,964	69
				SHORT FLIGHTS - Same as 50160100			
				ALT FLIGHTS - Same as 50160100			
5017 ELEVON ACT SW VLV POS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50170000 (8) ELEVON ACT SW VLV POS	4	8.0	D1R1	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101,964	3
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			
5018 RUD/SPDBRK ACT VLV POS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E P F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
50180100 RUD/SPDBRK ACT VLV POS #1	4	1.0	D2R1	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101,964	18
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Same			
50180200 RUD/SPDBRK ACT VLV POS #2	4	1.0	D3R1	LONG FLIGHTS - Same as 50180100	-	101,964	33
				SHORT FLIGHTS - Same as 50180100			
				ALT FLIGHTS - Same as 50180100			
5019 TVC ACT SW VLV POS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50190000 (12) TVC ACT SW VLV POS	7	12.0	D1R1	LONG FLIGHTS - On from pwr xfr int to pwr xfr ext	-	101	3
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
5022 BODYFLAP MOTOR HEATERS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
50220100 (1) BODYFLAP HTR #1 HTR #1/#2	4	50.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - Only 1 is to be used, 50220100 represents 2			
50220200 (1) BODYFLAP HTR #2 HTR #1/#2	4	50.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - Only 1 is to be used, 50220200 represents 2			
50220300 (1) BODYFLAP HTR #3 HTR #1/#2	4	50.0	D3A1	LONG FLIGHTS - Not used	-	-	43
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - Only 1 is to be used, 50220300 represents 2			
5024 MAIN PUMP HEATERS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50240100 (1) MAIN PUMP #1 HEATER #1/#2	4	25.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - Not used			
				NOTE - Only 1 is to be used, 50240100 represents 2			
50240200 (1) MAIN PUMP #2 HEATER #1/#2	4	25.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - Only 1 is to be used, 50240200 represents 2			
50240300 (1) MAIN PUMP #3 HEATER #1/#2	4	25.0	D3A1	LONG FLIGHTS - Not used	-	-	43
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - Only 1 is to be used, 50240300 represents 2			
5025 RUD/SPDBRK MTR HEATERS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50250100 (2) RUD/SPDBRK MTR #1 & 4 HTR	4	100.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - Not used			
				NOTE - (1) RUD/SPDBRK MTR #1 HTR, 50.0 watts (ALT) (2) Only 2 are to be used, 50250100 represents 4			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
50250200 (2) RUD/SPDBRK HTR #2 & 5 HTR	4	100.0	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - (1) RUD/SPDBRK HTR #2 HTR, 50.0 watts (ALT) (2) Only 2 are to be used, 50250200 represents 4	-	-	28
50250300 (2) RUD/SPDBRK HTR #3 & 6 HTR	4	100.0	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Not used NOTE - (1) RUD/SPDBRK HTR #3 HTR, 50.0 watts (ALT) (2) Only 2 are to be used, 50250300 represents 4	-	-	43
50250400 RUD/SPDBRK HTR #4 HTR	1	50.0	D1A1	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	13
50250500 RUD/SPDBRK HTR #5 HTR	1	50.0	D2A1	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	28
50250600 RUD/SPDBRK HTR #6 HTR	1	50.0	D3A1	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Not used	-	-	43
5026 SSME HYD ISOL VALVES				FUNCTION: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50260100 SSME #1 HYD ISOL VALVE	7	80.0	D1A1	LONG FLIGHTS - Not used	-	-	13
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
50260200 SSME #2 HYD ISOL VALVE	7	80.0	D2A1	LONG FLIGHTS - Not used	-	-	28
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
50260300 SSME #3 HYD ISOL VALVE	7	80.0	D3A1	LONG FLIGHTS - Not used	-	-	43
				SHORT FLIGHTS - Not used			
				ALT FLIGHTS - N/A			
5027 LDG GEAR ISOL VALVES				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50270100 LG ISOL VLV SYS #1	4	80.0	D1A1	LONG FLIGHTS - On from 20 sec prior to touchdown until 6.5 min after stoproll	-	504	13
				SHORT FLIGHTS - Same			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - Not used			
50270200 LG ISOL VLV SYS #2	4	80.0	D2A1	LONG FLIGHTS - Same as 50270100	-	504	28
				SHORT FLIGHTS - Same as 50270100			
				ALT FLIGHTS - Not used			
50270300 LG ISOL VLV SYS #3	4	80.0	D3A1	LONG FLIGHTS - Same as 50270100	-	504	43
				SHORT FLIGHTS - Same as 50270100			
				ALT FLIGHTS - Not used			
5028 H2O BOILER STM VENT HTRS				FUNCTION:			
				(TBD)			
				USAGE:			
				(TBD)			
				ANALYSIS USAGE:			
50280100 H2O BOILER #1 STM VNT HTR	1	131.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	13
				NOTE-Assigned to D1A1 for analysis purposes			
50280200 H2O BOILER #2 STM VNT HTR	1	131.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	28
				NOTE-Assigned to D2A1 for analysis purposes			
50280300 H2O BOILER #3 STM VNT HTR	1	131.0	D	NEW COMPONENT - Not used in analysis (4/1/75)	-	-	43
				NOTE-Assigned to D3A1 for analysis purposes			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
51 DOCKING & CARGO HNDLG SYS							
5101 MANIPULATOR				FUNCTION: Used for payload handling (RI) USAGE: On during payload retrieval and handling (RI) ANALYSIS USAGE:			
51010000 MANIPULATOR	7	1600.0	D1M2	LONG FLIGHTS - On for 10 min during docking, undocking, payload deployment and payload retrieval SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	406,407,702 703	12
5102 MANIPULATOR DEPLOY DRIVES				FUNCTION: Used to deploy manipulator from the stowed position and away from the payload area to provide clearance for payload deplcyment or retrieval (RI) USAGE: On during manipulator arm deployment (RI) ANALYSIS USAGE:			
51020100 (2) MANIP DEPLOY DRIVE-SET A	7	300.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 12 sec during docking, undocking, payload deployment and payload retrieval SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	406,407,702, 703	52
51020200 (3) MANIP DEPLOY DRIVE-SET B	7	450.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 51020100 SHORT FLIGHTS - Same as 51020100	-	406,407,702 703	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A			
51020300 (3) MANIP DEPLOY DRIVE-SET C	7	450.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Same as 51020100 SHORT FLIGHTS - Same as 51020100 ALT FLIGHTS - N/A	-	406,407,702, 703	54
5103 MANIP RET LTCH DRIVES				FUNCTION: Used to latch the manipulator in the stowed position (BI) USAGE: On at the completion of payload deployment or retrieval operations (BI) ANALYSIS USAGE:			
51030100 (2) MANIP RET LTCH DR SET A	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 10 sec during docking, undocking, payload deployment and payload retrieval SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	406,407,702, 703	52
51030200 (2) MANIP RET LTCH DR SET B	7	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 51030100 SHORT FLIGHTS - Same as 51030100 ALT FLIGHTS - N/A	-	406,407,702, 703	53
51030300 (2) MANIP RET LTCH DR-SET C	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Same as 51030100 SHORT FLIGHTS - Same as 51030100 ALT FLIGHTS - N/A	-	406,407,702, 703	54

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5104 MANIP CNTL INTERFACE UNITS				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
51040100 MANIP CNTL INTFCE UNIT #1	7	11.0	D1M2	LONG FLIGHTS - On for duration of docking, undocking, payload deployment and payload retrieval SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	406,407,702 703	12
51040200 MANIP CNTL INTFCE UNIT #2	3	11.0	D1M2	NEW COMPONENT-Not used in analysis (4/1/75)	-	-	12
5105 P/L RETENTION LATCH DRIVES				FUNCTION: Opens and closes the payload retention latches for payload deployment or retrieval (RI) USAGE: Requires 3.0 seconds for operation (RI) ANALYSIS USAGE:			
51050100 (2) P/L RETEN LATCH DR #1	7	120.0	A1P3B A1P3A A1P3C	LONG FLIGHTS - Mission unique - BRM's 1 and 2 - Not used SHORT FLIGHTS - Mission unique - BRM's 3A and 3B - Not used ALT FLIGHTS - N/A NOTE - Only 2 to be used 51050100 represents 10	-	-	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
51050200 (2) P/L RETEN LATCH DR #2	7	120.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 51050100 SHORT FLIGHTS - Same as 51050100 ALT FLIGHTS - N/A NOTE - Only 2 to be used 51050200 represents 10	-	-	53
51050300 (2) P/L RETEN LATCH DR #3	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Same as 51050100 SHORT FLIGHTS - Same as 51050100 ALT FLIGHTS - N/A NOTE - Only 2 to be used 51050300 represents 10	-	-	54
5106 XFER TUNNEL EXT/RET DRIVES				FUNCTION: Extends the transfer tunnel to connect to the payload for personnel access or retracts the tunnel for payload deployment (RI) USAGE: (TBD) ANALYSIS USAGE:			
51060100 XFER TUNNEL EXT/RET DR #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Mission unique - BRM's 1 and 2 - Not used SHORT FLIGHTS - Mission unique - BRM's 3A and 3B - Not used ALT FLIGHTS - N/A	-	-	52
51060200 XFER TUNNEL EXT/RET DR #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 51060100 SHORT FLIGHTS - Same as 51060100 ALT FLIGHTS - N/A	-	-	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5107 XFER TUNNEL LATCH DRIVES				FUNCTION: Operates the tunnel to payload latches which provide positive engagement between the two units (RI) USAGE: (TBD) ANALYSIS USAGE:			
51070100 XFER TUNNEL LATCH DR #1	7	140.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Mission unique - BRM's 1 and 2 - Not used SHORT FLIGHTS - Mission unique - BRM's 3A and 3B - Not used ALT FLIGHTS - N/A	-	-	53
51070200 XFER TUNNEL LATCH DR #2	7	140.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Same as 51070100 SHORT FLIGHTS - Same as 51070100 ALT FLIGHTS - N/A	-	-	54
5112 RNDZ SNSR DEPLOY DRIVES				FUNCTION: Consists of mechanical linkages, power transmission components, and power sources necessary to deploy and retract the rendezvous antenna USAGE: Deploys at 116 degrees of PLB doors opening and retracts when PLB doors begin to close; nominal time to deploy or retract, using two motors is 20.0 sec			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
51120100 RNDZ SNSR DEPL DR #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 20 sec starting 1 min after payload doors release; on for 20 sec at the start of payload bay doors closing SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	417,418	52
51120200 RENDZ SNSR DEPL DR #2	7	200.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Same as 51120100 SHORT FLIGHTS - Same as 51120100 ALT FLIGHTS - N/A	-	417,418	54
5115 E/T UMB (LH) DOOR DRIVES				FUNCTION: After external tank separation the E/T umbilical doors are driven closed (RI) USAGE: On for 30 sec (RI) ANALYSIS USAGE:			
51150100 E/T UMB (LH) DOOR DR #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 30.0 seconds commencing 23.0 seconds after MECO SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	202	52
51150200 E/T UMB (LH) DOOR DR #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 51150100 SHORT FLIGHTS - Same as 51150100 ALT FLIGHTS - N/A	-	202	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5116 E/T UMB (LH) DOOR LATCHES				FUNCTION: Latch external tank umbilical doors after being driven closed (RI) USAGE: On for 6 sec following closing (RI) ANALYSIS USAGE:			
51160100 E/T UMB (LH) DOOR LCH 1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 7.0 seconds commencing 53.0 seconds after MECO SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	202	52
51160200 E/T UMB (LH) DOOR LCH 2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 51160100 SHORT FLIGHTS - Same as 51160100 ALT FLIGHTS - N/A	-	202	53
5117 E/T UMB (RH) DOOR DRIVES				FUNCTION: After external tank separation the E/T umbilical doors are driven closed (RI) USAGE: On for 30 sec (RI) ANALYSIS USAGE:			
51170100 E/T UMB (RH) DOOR DR #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 30.0 seconds commencing 23.0 seconds after MECO SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	202	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
51170200 E/T UMB (RH) DOOR DR #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 51170100 SHORT FLIGHTS - Same as 51170100 ALT FLIGHTS - N/A	-	202	53
5118 E/T UMB (RH) DOOR LATCHES				FUNCTION: Latch external tank umbilical door after being driven closed (RI) USAGE: On for 6 sec following closing (RI) ANALYSIS USAGE:			
51180100 E/T UMB (RH) DOOR LCH 1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 7.0 seconds commencing 53.0 seconds after MECO SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	202	52
51180200 E/T UMB (RH) DOOR LCH 2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 51180100 SHORT FLIGHTS - Same as 51180100 ALT FLIGHTS - N/A	-	202	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
52 MECHANICAL SYS & LNDG							
5201 RUD/SPDBRK S/V (RUD)				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
52010000 (2) RUD/SPDBRK S/V (RUD)	4	30.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - On from takeoff to stoproll	-	963	13
5202 RUD/SPDBRK S/V				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
52020100 (2) RUD/SPDBRK S/V #1 & 4	4	30.0	D1A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - On from takeoff to stoproll NOTE - RUD/SPDBRK S/V #1, 15.0 watts (ALT)	-	963	13
52020200 RUD/SPDBRK S/V #2	4	15.0	D2A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Same as 52020100	-	963	28

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
52020300 RUD/SPDBRK S/V #3	4	15.0	D3A1	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - Same as 52020100	-	963	43
52020400 RUD/SPDBRK S/V #4	1	15.0	D1A1	LONG FLIGHTS - N/A SHORT FLIGHTS - N/A ALT FLIGHTS - Same as 52020100	-	963	13
5204 STARTRACKER DOOR DRIVES				FUNCTION: Controls latching, unlatching, opening and closing the one startracker door via 3 electric motors USAGE: Door is opened prior to startracker use and closed after use ANALYSIS USAGE:			
52040100 STARTRACKER DOOR DR #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 1 min during IMU align and during rendezvous SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	404,405	52
52040200 STARTRACKER DOOR DR #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - On for 1 min during IMU align SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	404	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5205 RCS TOP DOOR ACTS				FUNCTION: Open the top forward RCS door, after it is unlatched, to expose the jets and permit selected thruster firing USAGE: First opened after MECO for separation; following maneuvers utilizing the fwd RCS thrusters, the doors will be closed and latched ANALYSIS USAGE:			
52050100 RCS TOP DOOR ACT #1	7	200.0	A1F3B A1P3A A1F3C	LONG FLIGHTS - On for 20 sec at MECO; on for 20 sec commencing 2 min prior to deorbit SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	202,416,461	52
52050200 RCS TOP DOOR ACT #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52050100 SHORT FLIGHTS - Same as 52050100 ALT FLIGHTS - N/A	-	202,416,461	53
5206 RCS LH SIDE DOOR ACTS				FUNCTION: Open the left forward RCS door, after it is unlatched, to expose the jets and permit selected thruster firing USAGE: First opened after MECO for separation; following maneuvers utilizing the fwd RCS thrusters, the doors will be closed and latched			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	SUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
52060100 RCS LH SIDE DOOR ACT #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 20 sec at MECO; on for 20 sec commencing 2 min prior to deorbit SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	202,416,461	52
52060200 RCS LH SIDE DOOR ACT #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52060100 SHORT FLIGHTS - Same as 52060100 ALT FLIGHTS - N/A	-	202,416,461	53
5207 RCS RH SIDE DOOR ACTS				FUNCTION: Open the right forward RCS door, after it is unlatched, to expose the jets and permit selected thruster firing USAGE: First opened after MECO for separation; following maneuvers utilizing the fwd RCS thrusters, the doors will be closed and latched			
				ANALYSIS USAGE:			
52070100 RCS RH SIDE DOOR ACT #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 20 sec at MECO; on for 20 sec commencing 2 min prior to deorbit SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	202,416,461	52
52070200 RCS RH SIDE DOOR ACT #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52070100 SHORT FLIGHTS - Same as 52070100 ALT FLIGHTS - N/A	-	202,416,461	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5208 LAUNCH UMB (LH) DOOR DRIVES				FUNCTION: To drive launch umbilical door closed (RI) USAGE: Requires 30 sec to drive door closed during ascent (RI) ANALYSIS USAGE:			
52080100 LNCH UMB DOOR DR (LH) #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On at liftoff for 10 sec SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	201	52
52080200 LNCH UMB DOOR DR (LH) #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52080100 SHORT FLIGHTS - Same as 52080100 ALT FLIGHTS - N/A	-	201	53
5209 LAUNCH UMB (RH) DOOR DRIVES				FUNCTION: To drive launch umbilical door closed (RI) USAGE: Requires 30 sec to drive door closed during ascent (RI) ANALYSIS USAGE:			
52090100 LNCH UMB DOOR DR (RH) #1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On at lift off for 10 sec SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	201	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
52090200 LNCH UMB DOOR DR (RH) #2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52090100 SHORT FLIGHTS - Same as 52090100 ALT FLIGHTS - N/A	-	201	53
5216 P/L BAY DOOR (LH) DRIVES				FUNCTION: To drive left hand payload bay doors open and closed (RI) USAGE: Each door requires 42.0 seconds to open or close (RI) ANALYSIS USAGE:			
52160100 P/L BAY DOOR DR (LH) #1	7	400.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 48 sec during payload bay doors opening and closing SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	417,418	52
52160200 P/L BAY DOOR DR (LH) #2	7	400.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52160100 SHORT FLIGHTS - Same as 52160100 ALT FLIGHTS - N/A	-	417,418	53
5217 P/L BAY DOOR (RH) DRIVES				FUNCTION: To drive right hand payload bay doors open and closed (RI) USAGE: Each door requires 42.0 seconds to open or close (RI)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F P	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
52170100 P/L BAY DOOR DR (RH) #1	7	400.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 48 sec during payload bay doors opening and closing	-	417,418	52
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
52170200 P/L BAY DOOR DR (RH) #2	7	400.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52170100	-	417,418	53
				SHORT FLIGHTS - Same as 52170100			
				ALT FLIGHTS - N/A			
5218 GN&C PROBE ACTS (LH) A-T				FUNCTION:			
				Deploy GN&C probes at 80,000 feet (RI)			
				USAGE:			
				Requires 15.0 sec to drive probe out (RI)			
				ANALYSIS USAGE:			
52180100 GN&C PROBE ACT LH-A-T #1	7	5.00	A1F3B	LONG FLIGHTS - On for 15 sec at approx 80,000 ft during descent	-	503	62
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - N/A			
				NOTE - Activity block time corresponds to 80,000 ft on BRM 2			
52180200 GN&C PROBE ACT LH-A-T #2	7	5.00	A2F3B	LONG FLIGHTS - On for 15 sc. at approx 80,000 ft during descent	-	503	65
				SHORT FLIGHTS - Same			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 80,000 ft on BRM 2			
5220 GN&C PROBE ACTS (RH) A-T				FUNCTION: Deploy GN&C probes at 80,000 feet (RI) USAGE: Requires 15.0 sec to drive probe out (RI) ANALYSIS USAGE:			
52200100 GN&C PROBE ACT RH-A-T #1	7	5.00	A2F3C	LONG FLIGHTS - On for 15 sec at approx 80,000 ft during descent SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 80,000 ft on BRM 2	-	503	66
52200200 GN&C PROBE ACT RH-A-T #2	7	5.00	A2F3C	LONG FLIGHTS - On for 15 sec at approx 80,000 ft during descent SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 80,000 ft on BRM 2	-	503	66
5226 NOSE WHEEL STEERING UNIT				FUNCTION: Provides orbiter steering capability during landing rollout and taxi (RI) USAGE: Used during landing rollout and taxi (RI)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
52260000 NOSE WHEEL STEERING UNIT	4	10.0	D1R1	LONG FLIGHTS - On from approx. 15,000 feet during descent to 6.5 min after stoproll	-	504	03
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Not used			
				NOTE - (1) Activity block time corresponds to start of prefinal approach phase (2) D1L1 (ALT)			
5227 BRAKE/SKID POWER UNITS				FUNCTION:			
				Provides orbiter braking and anti-skid control during landing rollout and taxi (RI)			
				USAGE:			
				Used during landing rollout and taxi (RI)			
				ANALYSIS USAGE:			
52270100 BRAKE/SKID POWER UNIT #1	4	70.0	D2F2 *D1F2 D3F2	LONG FLIGHTS - On from approx 15,000 feet during descent to 6.5 min after stoproll	-	504	9
				SHORT FLIGHTS - Same			
				ALT FLIGHTS - Not used			
				NOTE - Activity block time corresponds to start of prefinal approach phase			
52270200 BRAKE/SKID POWER UNIT #2	4	70.0	*D2F2 D1F2 D3F2	LONG FLIGHTS - Same as 52270100	-	504	24
				SHORT FLIGHTS - Same as 52270100			
				ALT FLIGHTS - Not used			
				NOTE - Activity block time corresponds to start of prefinal approach phase			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5230 GN&C PROBE HEATERS				FUNCTION: Each probe is heated by a single heater which contains a variable resistance temperature sensor; the heaters operate continuously at a power level necessary to provide the required thermal energy for heating (RI) USAGE: On from probe deployment at approx. 80,000 feet; turned off automatically when indicated airspeed drops below 200 knots (RI) ANALYSIS USAGE:			
52300100 GN&C PROBE HEATERS-LEFT	4	1100.0	D1F1	LONG FLIGHTS - On from approx 80,000 feet during descent until touchdown SHORT FLIGHTS - Same ALT FLIGHTS - On from takeoff to touchdown NOTE - Activity block time corresponds to 80,000 ft on BRM 2	-	503,504,963	8
52300200 GN&C PROBE HEATERS-RIGHT	4	1100.0	D2F1	LONG FLIGHTS - Same as 52300100 SHORT FLIGHTS - Same as 52300100 ALT FLIGHTS - Same as 52300100 NOTE - Activity block time corresponds to 80,000 ft on BRM 2	-	503,504,963	23
5232 VENT DOOR MOTORS				FUNCTION: (TBD) USAGE: Motor requires 6.7 sec to open or close (RI)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
52320100 (2) VENT DOOR MOTORS-SET 1	7	20.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On at 10 sec GET for 8 sec duration; on 1 min prior to deorbit for 8 sec duration; on for 7 sec duration at approx 75,000 feet during descent SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 75,000 ft on BRM 2	-	201,502,503	52
52320200 (2) VENT DOOR MOTORS-SET 2	7	20.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52320100 SHORT FLIGHTS - Same as 52320100 ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 75,000 ft on BRM 2	-	201,502,503	53
5233 VENT DOOR MOTORS				FUNCTION: (TBD) USAGE: Motor requires 6.7 sec to open or close (RI) ANALYSIS USAGE:			
52330100 (2) VENT DOOR MOTORS-SET 1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On at 10 sec GET for 8 sec duration; on 1 min prior to deorbit for 8 sec duration; on for 7 sec duration at approx. 75,000 feet during descent SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 75,000 ft on BRM 2	-	201,502,503	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
52330200 (2) VENT DOOR MOTORS-SET 2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52330100 SHORT FLIGHTS - Same as 52330100 ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 75,000 ft on BRM 2	-	201,502,503	53
5234 VENT DOOR MOTORS				FUNCTION: (TBD) USAGE: Motor requires 6.7 sec to open or close (BI) ANALYSIS USAGE:			
52340100 (2) VENT DOOR MOTORS-SET 1	7	40.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On at 10 sec GET for 8 sec duration; on 1 min prior to deorbit for 8 sec duration; on for 7 sec duration at approx. 75,000 feet during descent SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 75,000 ft on BRM 2	-	201,502,503	52
52340200 (2) VENT DOOR MOTORS-SET 2	7	40.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52340100 SHORT FLIGHTS - Same as 52340100 ALT FLIGHTS - N/A NOTE - Activity block time corresponds to 75,000 ft on BRM 2	-	201,502,503	53

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
5235 VENT DOOR MTR PLB WNG				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS:			
52350100 (2) VENT DOOR MTR PLB WNG 1	7	200.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	52
52350200 (2) VENT DOOR MTR PLB WNG 2	7	200.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Not used SHORT FLIGHTS - Not used ALT FLIGHTS - N/A	-	-	53
5236 PBD CIRCUM LATCH DRIVES				FUNCTION: (TBD) USAGE: Requires 12.0 sec to operate (BI) ANALYSIS USAGE:			
52360100 (2) PBD CIRCUM LATCH DR #1	7	280.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 12 sec to release payload bay doors; on for 12 sec to latch doors closed SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Only 2 used, 52360100 represents 4	-	417,418	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	EF	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	PDL	ACTIVITY BLOCKS	LOAD NO.
52360200 (2) PBD CIRCUM LATCH DR #2	7	280.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52360100 SHORT FLIGHTS - Same as 52360100 ALT FLIGHTS - N/A NOTE - Only 2 used, 52360200 represents 4	-	417,418	53
5237 PBD CNTR LINE LTCH DRS				FUNCTION: (TBD) USAGE: Requires 12.0 seconds to operate (RI) ANALYSIS USAGE:			
52370100 (2) PBD C-L LATCH DR #1	7	440.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 12.0 sec to release payload bay doors; on for 12.0 sec to latch doors closed SHORT FLIGHTS - Same ALT FLIGHTS - N/A NOTE - Only 2 used, 52370100 represents 4	-	417,418	52
52370200 (2) PBD C-L LATCH DR #2	7	440.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52370100 SHORT FLIGHTS - Same as 52370100 ALT FLIGHTS - N/A NOTE - Only 2 used, 52370200 represents 4	-	417,418	53
5238 RAD RET LATCH DRIVES				FUNCTION: (TBD) USAGE: (TBD)			

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
				ANALYSIS USAGE:			
52380100 (2) RAD RET LATCH DR #1	7	120.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 6.0 sec after PLB doors open to release radiator; on for 6.0 sec to latch radiator prior to PLB door close SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	417,418	52
52380200 (3) RAD RET LATCH DR #2	7	180.0	A2F3B A2F3A A2F3C	LONG FLIGHTS - Same as 52380100 SHORT FLIGHTS - Same as 52380100 ALT FLIGHTS - N/A	-	417,418	53
52380300 (2) RAD RET LATCH DR #3	7	120.0	A3F3B A3F3A A3F3C	LONG FLIGHTS - Same as 52380100 SHORT FLIGHTS - Same as 52380100 ALT FLIGHTS - N/A	-	417,418	54
5239 RADIATOR DEPLOY DRIVES				FUNCTION: (TBD) USAGE: (TBD) ANALYSIS USAGE:			
52390100 (2) RAD DEPLOY DRIVE #1	7	30.0	A1F3B A1F3A A1F3C	LONG FLIGHTS - On for 3.0 min after radiator release to deploy radiator; on for 3.0 min prior to payload bay doors close to retract radiator SHORT FLIGHTS - Same ALT FLIGHTS - N/A	-	417,418	52

TABLE A-I.- EPS DATA BASE - EQUIPMENT UTILIZATION - Continued

ID NO/ EQUIPMENT DESCRIPTION	E F F	TOTAL POWER (WATTS)	BUS ID	FUNCTION AND USAGE	P D L	ACTIVITY BLOCKS	LOAD NO.
52390200 (2)							
RAD DEPLOY DRIVE #2	7	30.0	A2F3B	LONG FLIGHTS - Same as 52390100	-	417,418	53
			A2F3A				
			A2F3C	SHORT FLIGHTS - Same as 52390100			
				ALT FLIGHTS - N/A			

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