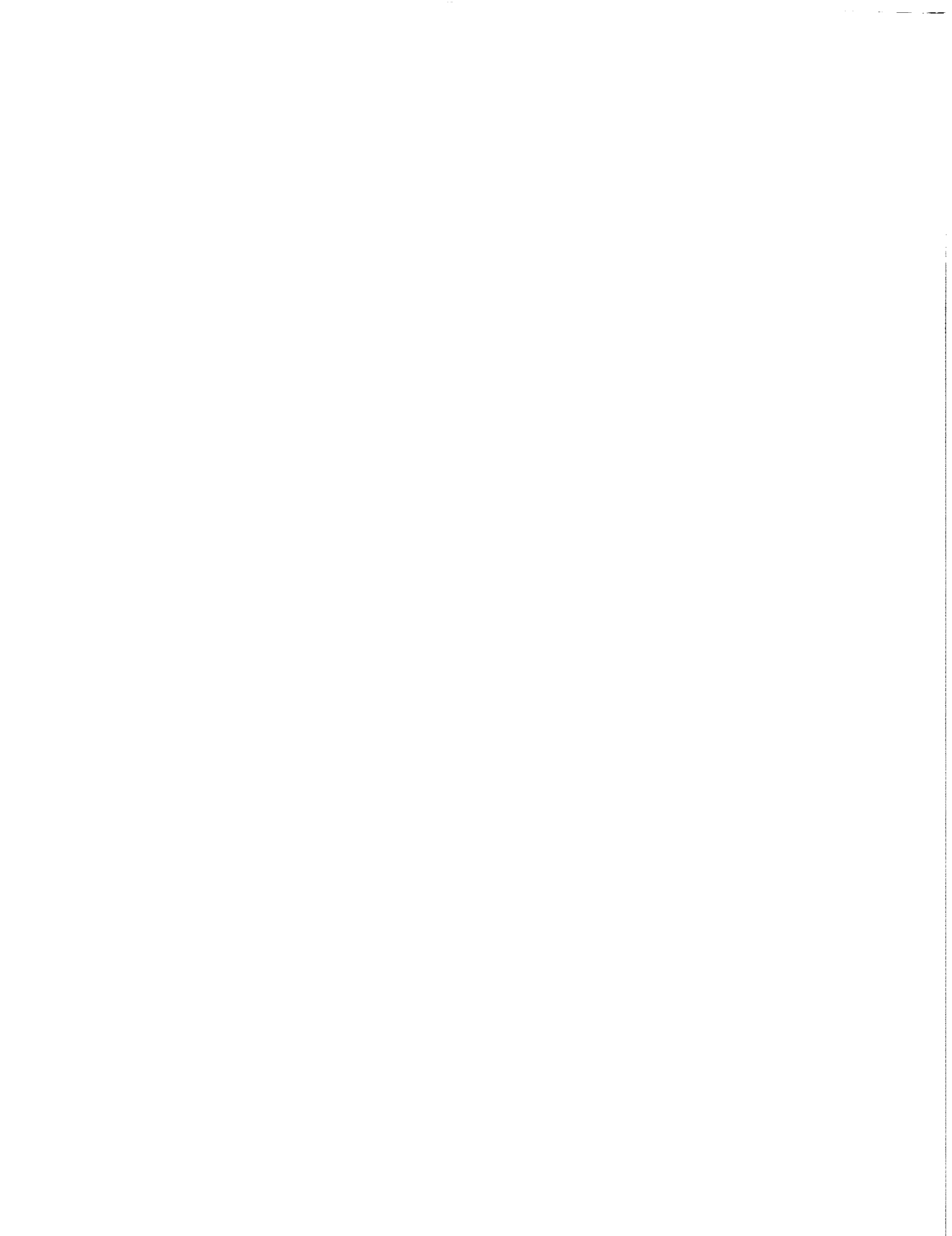# INDEPENDENT ORBITER ASSESSMENT

**ASSESSMENT OF THE
MAIN PROPULSION
SUBSYSTEM
FMEA/CIL
VOLUME 1 OF 4**

26 FEBRUARY 1988

MCDONNELL DOUGLAS ASTRONAUTICS COMPANY
ENGINEERING SERVICES

SPACE TRANSPORTATION SYSTEM ENGINEERING AND OPERATIONS SUPPORT

WORKING PAPER NO. 1.0-WP-VA88003-33

INDEPENDENT ORBITER ASSESSMENT
ASSESSMENT OF THE ORBITER MAIN PROPULSION SYSTEM FMEA/CIL

26 February 1988

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1.0 EXECUTIVE SUMMARY

The McDonnell Douglas Astronautics Company (MDAC) was selected in June 1986 to perform an Independent Orbiter Assessment (IOA)of the Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL). Direction was given by the STS Orbiter and GFE Projects Office to perform the hardware analysis using the instructions and ground rules defined in NSTS 22206, Instructions for Preparation of FMEA and CIL, 10 October 1986.

The IOA effort first completed an analysis of the Main Propulsion System (MPS) hardware, generating draft failure modes and potential critical items. To preserve independence, this analysis was accomplished without reliance upon the results contained within the NASA FMEA/CIL documentation. The IOA results were then compared to available data from the Rockwell Downey/NASA JSC (henceforth referred to as RI/NASA) FMEA/CIL review. (This review is still in progress as of this writing.) Data available to IOA as of 1 January 1988 was used.

For the mechanical component analysis, this included: (1) The RI/ NASA Critical Items List of 23 December 1987, (2) substantially complete (but still subject to revision) CIL worksheets for the Feed and Fill/Drain Subsystems, and (3) RI/NASA FMEA/CIL review meeting notes specifying revisions to the pre-51L FMEA/CIL document. These notes were acquired from J. E.Borches/Lockheed in July 1987.

Available data for the EPD&C analysis included substantially complete CIL worksheets for some EPD&C components (Feed and Fill/Drain) and the MPS/EPDC FMEA Review Summary of 18 August 1987. The Review Summary gives no supporting information, only criticalities and screens. All of this data was still subject to change at the time this assessment began.

IOA Assessment sheets (Appendix C) indicate the source of the RI/NASA work that was assessed. Where no source is given, an RI/NASA CIL worksheet was used.

Due to severe budget and schedule constraints, the resolution of differences between the RI/NASA results and IOA was not possible.

An overview of the IOA MPS Assessment results is given in Figure 1.

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MPS ASSESSMENT OVERVIEW

MPS ASSESSMENT SUMMARY

	IOA	NASA	ISSUES
FMEA	1365	1264	399
CIL	711	749	191

MECHANICAL COMPONENTS

	IOA	NASA	ISSUES
FMEA	623	606	179
CIL	410	475	86

ELECTRICAL COMPONENTS

	IOA	NASA	ISSUES
FMEA	742	658	220
CIL	301	274	105
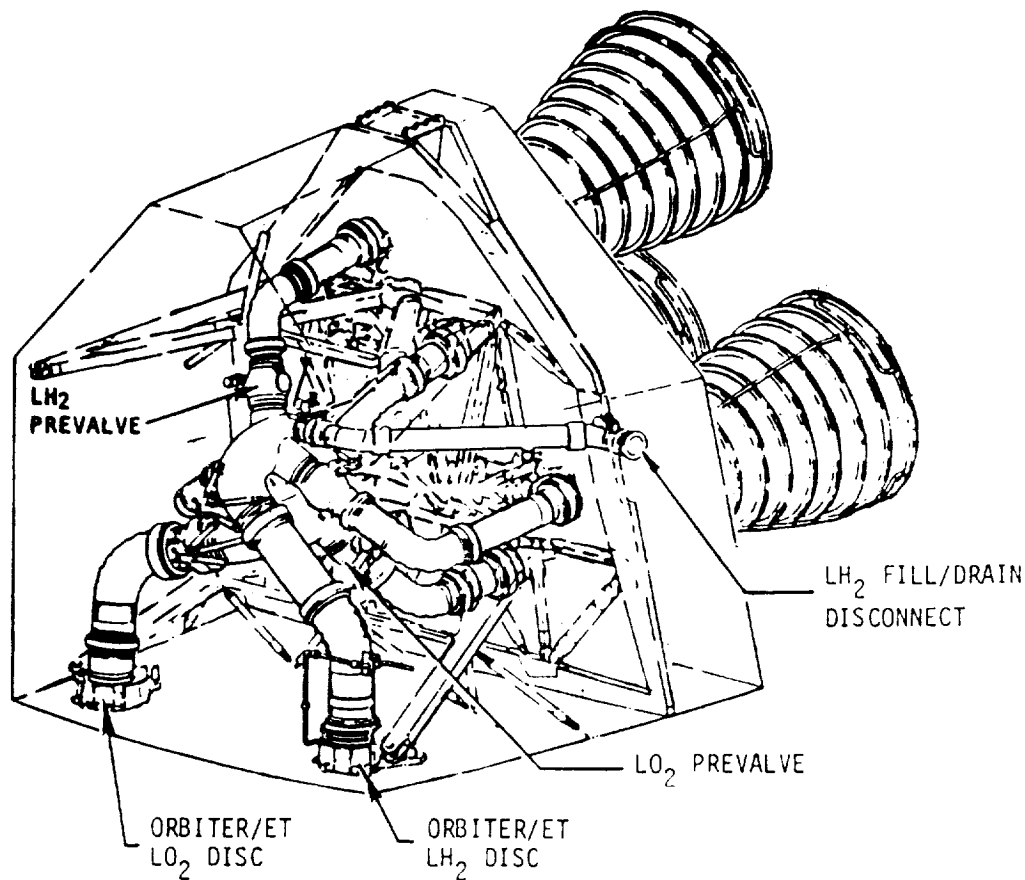
Figure 1 - MPS FMEA/CIL ASSESSMENT

2.0 INTRODUCTION

2.1 Purpose

The 51-L Challenger accident prompted the NASA to readdress safety policies, concepts, and rationale being used in the National Space Transportation System (NSTS). The NSTS Office has undertaken the task of reevaluating the FMEA/CIL for the Space Shuttle design. The MDAC is providing an independent assessment of the proposed Post 51-L Orbiter FMEA/CIL for completeness and technical accuracy.

2.2 Scope

The scope of the independent FMEA/CIL assessment activity encompasses those Shuttle Orbiter subsystems and GFE hardware identified in the Space Shuttle Independent FMEA/CIL Assessment Contractor Statement of Work. Each subsystem analysis addresses hardware, functions, internal and external interfaces, and operational requirements for all mission phases.

2.3 Analysis Approach

The independent analysis approach is a top-down analysis utilizing as-available drawings to breakdown the respective subsystem into components and low-level hardware items. Each hardware item is evaluated for failure mode, effects, and criticality. These data are documented in the respective subsystem analysis report, and are used to assess the proposed Post 51-L NASA and Prime Contractor FMEA/CIL. The IOA analysis approach is summarized in the following Steps 1.0 through 3.0. Step 4.0 summarizes the assessment of the NASA and Prime Contractor FMEA/CIL which is documented in this report.

    Step 1.0 Subsystem Familiarization
         1.1 Define subsystem functions
         1.2 Define subsystem components
         1.3 Define subsystem specific ground rules and
              assumptions

    Step 2.0 Define subsystem analysis diagram
         2.1 Define subsystem
         2.2 Define major assemblies
         2.3 Develop detailed subsystem representations

    Step 3.0 Failure events definition
         3.1 Construct matrix of failure modes
         3.2 Document IOA analysis results

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```
Step 4.0   Compare IOA analysis data to NASA FMEA/CIL
     4.1   Resolve differences
     4.2   Review in-house
     4.3   Document assessment issues
     4.4   Forward findings to Project Manager
```

2.4   Ground Rules and Assumptions

The ground rules and assumptions used in the IOA are defined in
Appendix B. The subsystem specific ground rules were defined to
provide necessary additions and clarifications to the ground
rules and assumptions contained in NSTS 22206.

3.0 SUBSYSTEM DESCRIPTION

3.1 Design and Function

The Orbiter Main Propulsion System is composed of the Propellant Management Subsystem (PMS) consisting of the LO_2 and LH_2 subsystems and the Helium Subsystem (Figures 2A thru 2D). The PMS is a system of manifolds, distribution lines, and valves by which the liquid propellants pass from the ET to the SSMEs. Some of the propellants are vaporized in the engine and returned to the ET to maintain ullage pressure. The Helium Subsystem consists of a series of helium supply tanks and their associated regulators, check valves, distribution lines, and control valves. The Helium Subsystem supplies helium that is used within the SSMEs for in-flight purges and provides pressure for actuating SSME valves during emergency pneumatic shutdowns. The balance of the helium is used to provide pressure to actuate all the pneumatically operated valves within the PMS.

3.1.1 Propellant Management Subsystem Function

During engine burn, propellants under tank pressure flow from the ET to the Orbiter through two umbilicals; one for LO_2 and the other for LH_2 (Figures 3 and 4, respectively).

The PMS also provides a path which allows gases tapped from the three engines to flow back to the ET, through two gas umbilicals, to maintain pressures in the fuel and oxidizer tanks.

The PMS also functions during phases other than engine burn. During prelaunch, the PMS is used to control the loading of propellants in the ET. During orbit, PMS controls propellant dump, vacuum inerting, and system repressurization (for entry).

3.1.2 The PMS Components

The PMS contains the following major components (Figures 3 and 4).

    A.   **Liquid Propellant Supply and Distribution Network.**
The network is composed of all the liquid propellant lines used to load propellants during prelaunch, feed propellants to the SSMEs during engine burn, and dump residual propellants after ET separation. Specifically, the network consists of:
        1.   Propellant Feedline Manifolds - There are two 17-inch diameter manifolds in the Orbiter, one for LO_2 and one for LH_2. Both of the manifolds have a feedline disconnect valve at one end and two fill and drain valves (one inboard, one outboard) connected in series at the other end. The feedline manifolds connect to the ET liquid propellant umbilicals at the feedline disconnect valve, and to either GSE liquid propellant umbilicals (prelaunch only), or overboard at the outboard fill and drain valves.
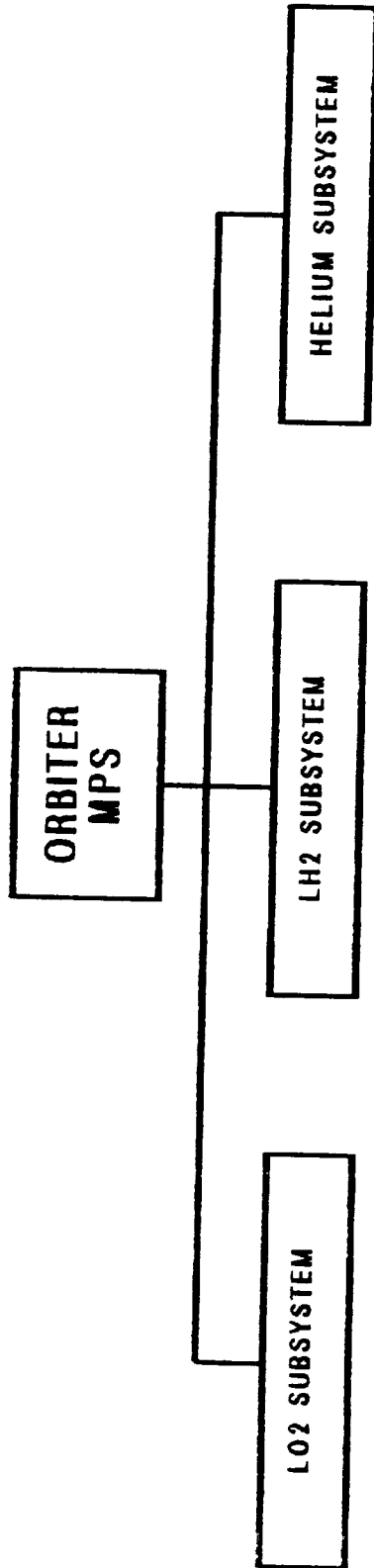
Figure 2A - ORBITER MPS SUBSYSTEMS
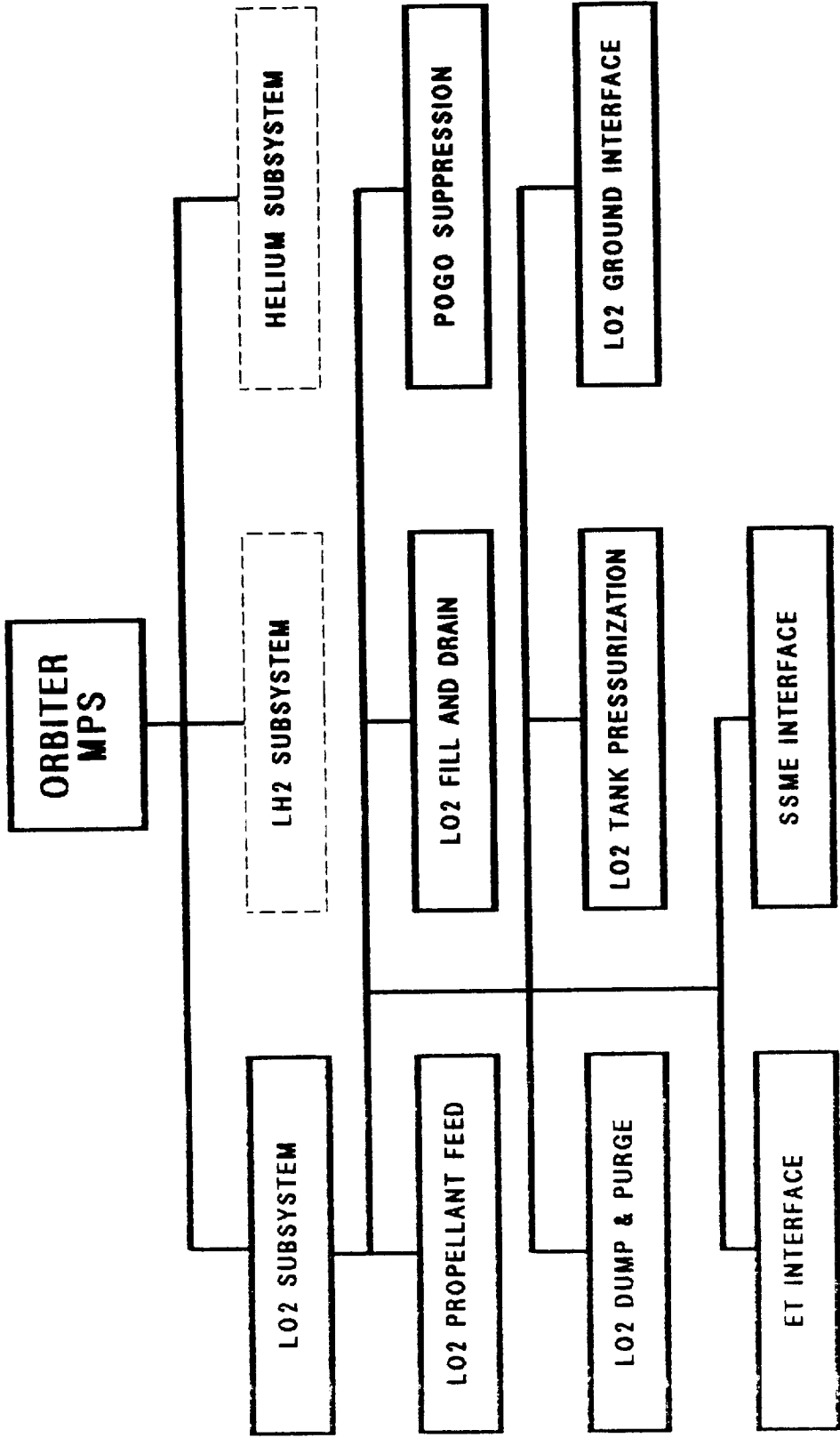
Figure 2B - ORBITER MPS LO2 SUBSYSTEM OVERVIEW
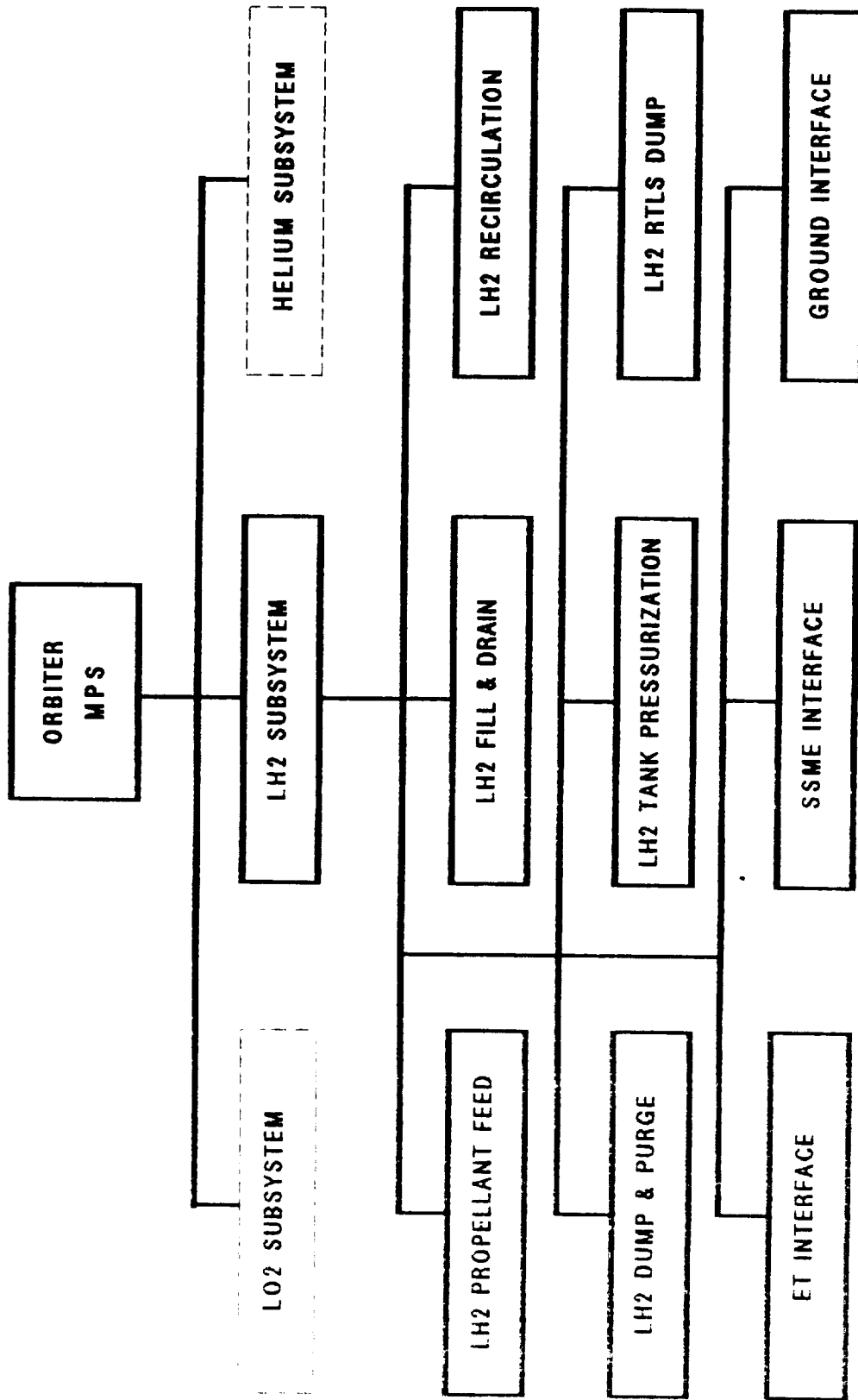
Figure 2C - ORBITER MPS LH$_2$ SUBSYSTEM OVERVIEW
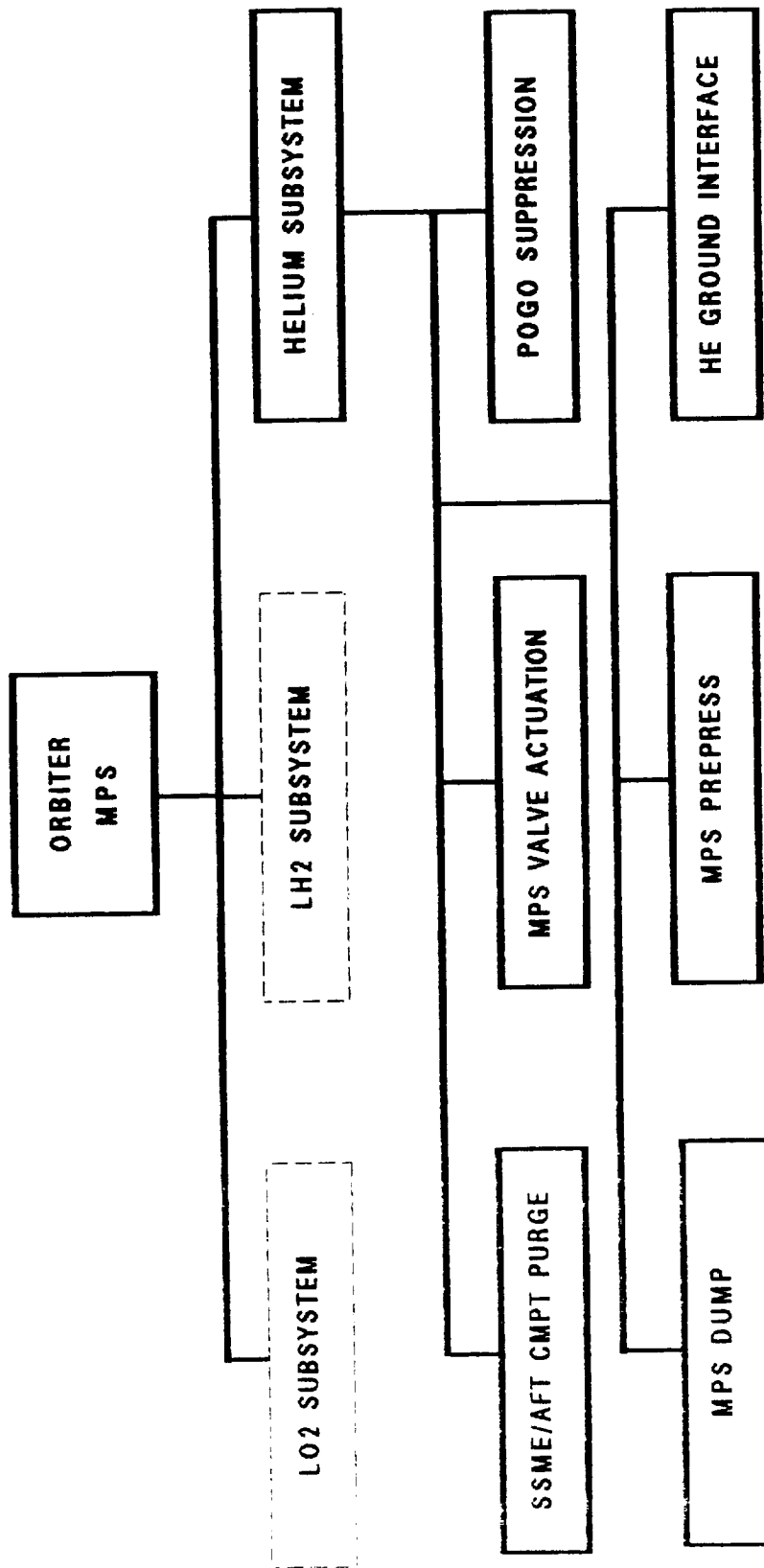
Figure 2D - ORBITER MPS HELIUM SUBSYSTEM OVERVIEW

Figure 3 - PROPELLANT MANAGEMENT SUBSYSTEM OXIDIZER FLOW

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Figure 4 - PROPELLANT MANAGEMENT SUBSYSTEM FUEL FLOW
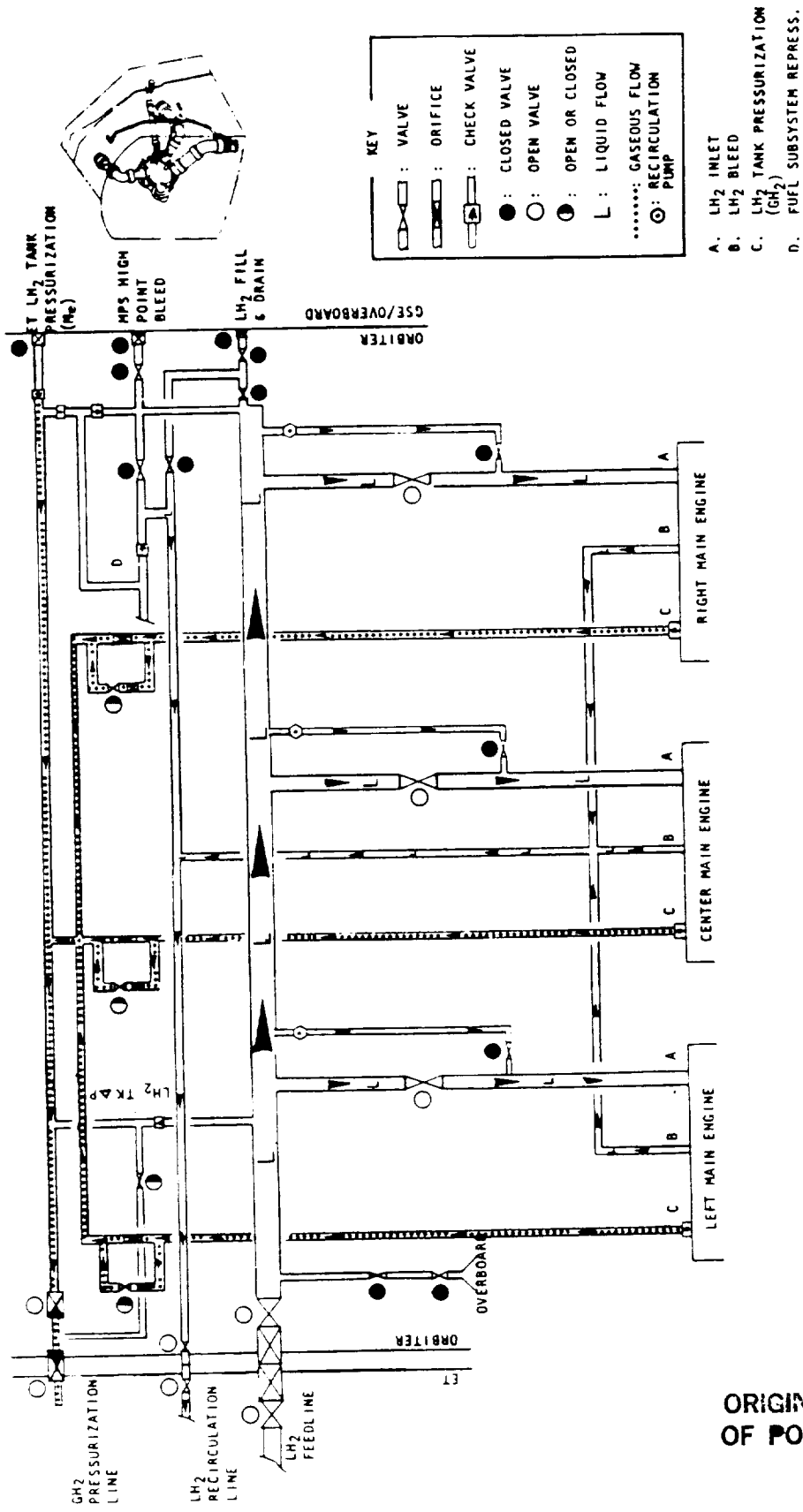
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Between the feedline disconnect valves and the inboard fill and drain valves are three outlets for the three engine propellant feedlines and 1 outlet for the propellant feedline relief line. The LH_2 feedline manifold contains an extra outlet for the LH_2 Return to Launch Site (RTLS) feedline dump line. (See paragraph 4 below.) Pressures within the LO_2 and the LH_2 feedline manifolds (MANF) can be monitored on the two ENG MANF meters on Panel F7 or the CRT display Guidance and Navigation Control (GNC) System (SYS) SUMM 1 Backup Flight System (BFS).

2. Engine Propellant Feedlines - There are 6 12-inch diameter feedlines in the Orbiter, 3 for LO_2 and 3 for LH_2. Each of the LO_2 engine propellant feedlines connects to the LO_2 feedline manifold at one end and to the Low Pressure Oxidizer Turbopump (LPOT) inlet of one of the SSMEs at the other end. Likewise, each of the LH_2 engine propellant feedlines connects to the LH_2 feedline manifold at one end and to the Low Pressure Fuel Turbopump (LPFT) inlet at one of the SSMEs at the other end. There is one prevalve in each of the six engine propellant feedlines. The prevalves are designated as left, center, or right (engine) LO_2 prevalve; or left, center, or right (engine) LH_2 prevalve.

3. Propellant Feedline Relief Line - There are 2 1-inch diameter relief lines in the Orbiter, 1 for LO_2 and 1 for LH_2. Each relief line connects to 1 of the propellant feedline manifolds at 1 end and to an overboard port at the other end. Each relief line contains a relief valve and a pneumatically actuated relief isolation valve. The isolation valve is mounted in series with, and up-stream of, the relief valve. Flow through the relief line and relief valve is enabled by relieving closing pressure on the normally open isolation valve, allowing it to open.

The position of the relief isolation valve (2) is controlled by one of two FEEDLINE RLF ISOL switches on Panel R4. Normally these switches are left in the GPC position. With the switches (2) in this position, both relief isolation valves will be opened automatically immediately after MECO. The purpose of the relief lines is to prevent excessive pressure build-ups, generated by heatup and expansion of the propellants in the feedline manifolds, by allowing the pressure to be vented overboard through the relief valves.

4. LH$_2$ RTLS Feedline Dump Line - This is a single 2-inch diameter line which connects to the LH$_2$ feedline manifold at one end and to an overboard port at the other end. (The overboard port is located on the outer skin of the left side of the Orbiter between the Orbital Maneuvering System (OMS) pod and the upper surface of the wing.) The line is used for dumping residual LH$_2$ during an RTLS abort. In non-RTLS situations, the pilot can use the backup LH$_2$ dump switch to open these valves. Flow through the line is controlled by 2 series-connected, normally closed, LH$_2$ RTLS dump valves (1 inboard, 1 outboard) which are mounted in the line. The LH$_2$ RTLS dump valves are controlled automatically by GPC commands.

B. <u>Gaseous Propellant Collection and Supply Network</u>. The network consists of all the lines used to collect and supply gaseous propellants (GO2 and GH2) from all three SSMEs to the ET to maintain propellant tank pressure during main engine burn. (Note: This network has no major function after ET separation.) Specifically, the gaseous propellant collection and supply network consists of the following.

1. Engine ET Pressurization Output Lines - There are 6 0.63-inch diameter pressurization lines in the Orbiter, 3 for GO$_2$ and 3 for GH$_2$. Each of the GO2 pressurization lines connects to the oxidizer heat exchanger outlet of 1 of the SSMEs at 1 end and the GO2 ET pressurization manifold at the other end. Each of the GH2 pressurization lines connects to the LPFT turbine outlet of 1 of the SSMEs at 1 end and the GH2 ET pressurization manifold at the other end. Six flow control valves are used to control ullage pressure in the two ET propellant tanks.

2. ET Pressurization Manifolds - There are 2 2-inch diameter manifolds in the Orbiter, 1 for GO$_2$ and 1 for GH$_2$. At each end of both manifolds are self-sealing quick disconnects. The pressurization manifolds connect to the ET gaseous propellant umbilicals at 1 set of quick-disconnects and to the GSE helium pressurization umbilicals at the other set of quick-disconnects. The GSE helium pressurization umbilicals (2) are used for the initial pressurization of the ET propellant tanks during prelaunch.

Each pressurization manifold contains inlets for he 3 engine ET pressurization output lines. (The ET GH$_2$ pressurization manifold contains, in addition to the three inlets, an outlet for the GH$_2$ pressurization vent line. (See paragraph 3 below.)

3. GH2 Pressurization Vent Line - This is a single line which connects to the ET GH2 pressurization manifold line at 1 end and to an overboard port at the other end. This line is used exclusively for vacuum inerting the GH_2 pressurization lines during orbit. Flow through the line is controlled by the normally closed GH_2 pressurization line vent valve which is mounted in the line. This valve is controlled by the GH2 PRESS LINE VENT switch on cockpit Panel R4.

C. Valves - There are 2 basic types of valves used in the PMS: those that are pneumatically actuated and those that are electrically actuated. Pneumatically actuated valves are used where large loads are encountered, such as in the control of liquid propellant flows. Electrically actuated valves are used where lighter loads are encountered, such as in the control of gaseous propellant flows.

Pneumatically actuated valves can be further divided into 2 subtypes - those that require pneumatic pressure to open and close the valve (type 1) and those that are spring-loaded to 1 position and require pneumatic pressure to move to the other position (type 2).

The following is a list of the type 1 valves.

LH_2 feedline disconnect valve
LO_2 feedline disconnect valve
LH_2 prevalves (3)
LO_2 prevalves (3)
LH_2 inboard fill/drain valve
LO_2 inboard fill/drain valve
LH_2 outboard fill/drain valve
LO_2 outboard fill/drain valve

Each type 1 valve actuator is equipped with 2 electrically actuated solenoid valves. Each of the 2 solenoid valves controls helium pressure to either an "open" port or a "close" port on the actuator.

Energizing the solenoid valve connected to the "open" port will allow helium pressure to open the pneumatic valve. Similarly, closing of the pneumatic valve is performed by energizing the solenoid valve connected to the "close" port. (The LO_2 Prevalves have 4 solenoids, two redundant solenoids each to control helium pressure to the "open" and to the" closed" ports.)

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Removing power from a solenoid valve not only removes helium pressure from the corresponding port of the pneumatic actuator, but also allows the helium pressure trapped in that side of the actuator to vent overboard. Removing power from both solenoids allows the pneumatic valve to remain in its last commanded position.

The following is a list of the type 2 valves.

LH_2 RTLS inboard dump valve, Normally Closed (NC)
LH_2 RTLS outboard dump valve (NC)
LH_2 feedline relief shutoff valve, Normally Open (NO)
LO_2 feedline relief shutoff valve (NO)
LO_2 Pogo accumulator recirculation valve (NO)

Each type 2 valve is equipped with a single electrically actuated solenoid valve which controls helium pressure to either an "open" port or a "close" port on the actuator. Removing power from the solenoid valve removes helium pressure from the corresponding port of the pneumatic actuator and allows helium pressure trapped in that side of the actuator to vent overboard. Spring force will then take over and drive the valve to the opposite position. If the spring force drives the valve to the open position, the valve is referred to as a Normally Open (NO) valve. If the spring force drives the valve to the closed position, the valve is referred to as a Normally Closed (NC) valve.

The following is a list of the electrically actuated solenoid valves:

H_2 pressurization line vent valve (NC)
GH_2 pressurization flow control valves (3) (NO)
GO_2 pressurization flow control valves (3) (NO)

The above electrically actuated valves are spring-loaded to one position and move to the other position when power is applied. These valves are referred to as either normally open or normally closed, based on their position in the de-energized state.

3.1.3   Orbiter MPS - Helium Subsystem General Description

The helium subsystem consists of 7 4.7-ft3 helium supply tanks, 3 17.3-ft3 helium supply tanks, and their associated regulators, check valves, distribution lines, and control valves (Figure 5). Four of the 4.7-ft3 helium supply tanks are located within the Orbiter aft of the payload bay area. The other 3 4.7-ft3 supply tanks and the three 17.3-ft3 supply tanks are located below the payload bay liner and above the main landing gear cavity. Each of the 17.3-ft3 supply tanks is plumbed to two of the 4.7-ft3 supply tanks (1 in the mid-body, the other in the aft body) to form 3

sets of 3 tanks. Each set of tanks, thus formed, normally provides helium to only one engine and for this reason is commonly referred to by the engine's designation; for example, "left engine helium." This helium is used for in-flight purges of engines, aft compartments, and provides pressure for actuating engine valves during emergency pneumatic shutdowns.

The remaining 4.7-ft3 helium supply tank (the 1 which is not connected to a 17.3-ft3 tank) is called the "pneumatic helium" supply tank. It normally provides pressure to actuate all of the pneumatically operated valves within the propellant management subsystem (Figure 5).

Each of the 4 helium supply circuits described above (3 engine helium and one pneumatic helium) will operate independently until after MECO, when the 3 "out" helium interconnect valves will be opened, connecting all circuits to a common manifold. This interconnection can be performed manually by the crew; however, normally the GPC will automatically interconnect the circuits just before the start of the MPS propellant dump.

3.1.4   Helium Subsystem Components

The helium subsystem contains the following major components.

A.   Supply Tank - Each engine helium supply tank cluster consists of 2 4.7-ft3 supply tanks and 1 17.3-ft3 supply tank. One of the 4.7-ft3 tanks and the 17.3-ft3 tank are located in the mid-body area of the Shuttle under the payload bay liner, in an area originally reserved for additional Power Reactant Supply and Distribution (PRSD) cryogenic storage. The 17.3-ft3 tank is identical to that used in the OMS. The remaining 4.7-ft3 tank is located in the rear of the Shuttle, aft of the payload bay bulkhead. The single 4.7-ft3 pneumatic helium supply tank is also located in this area. Prior to lift-off, all helium supply tanks will be pressurized to a nominal value of 4500 psia.

B.   Solenoid Actuated Valves - All of the valves in the helium subsystem are spring-loaded to one position and electrically actuated to the other position.

Valve position is controlled via electrical signals from either the GPCs or a manual switch. The crew can control only a portion of the valves through cockpit switches, the remainder are controlled automatically by the GPCs.
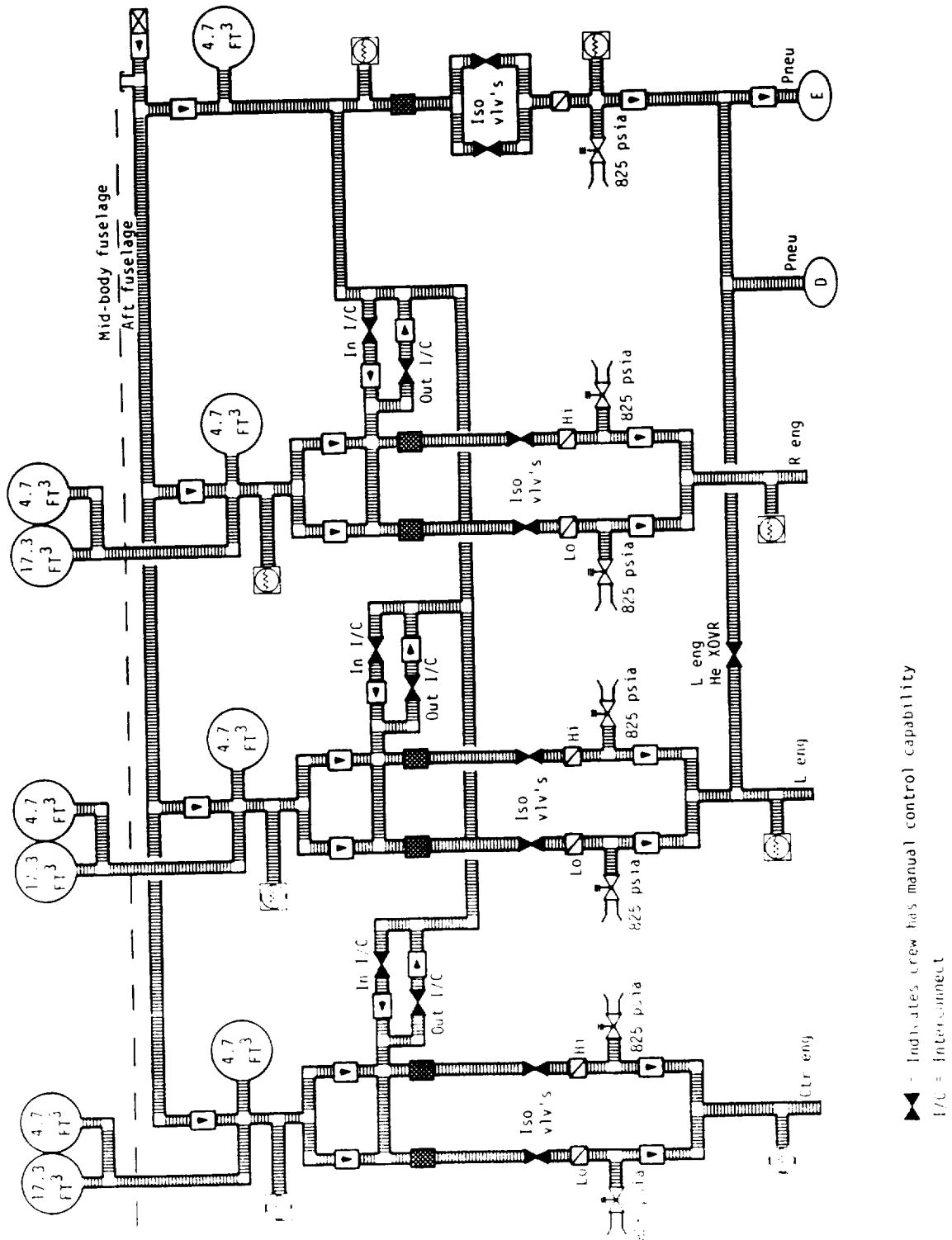
Figure 5 — HELIUM SUBSYSTEM; STORAGE AND REGULATION

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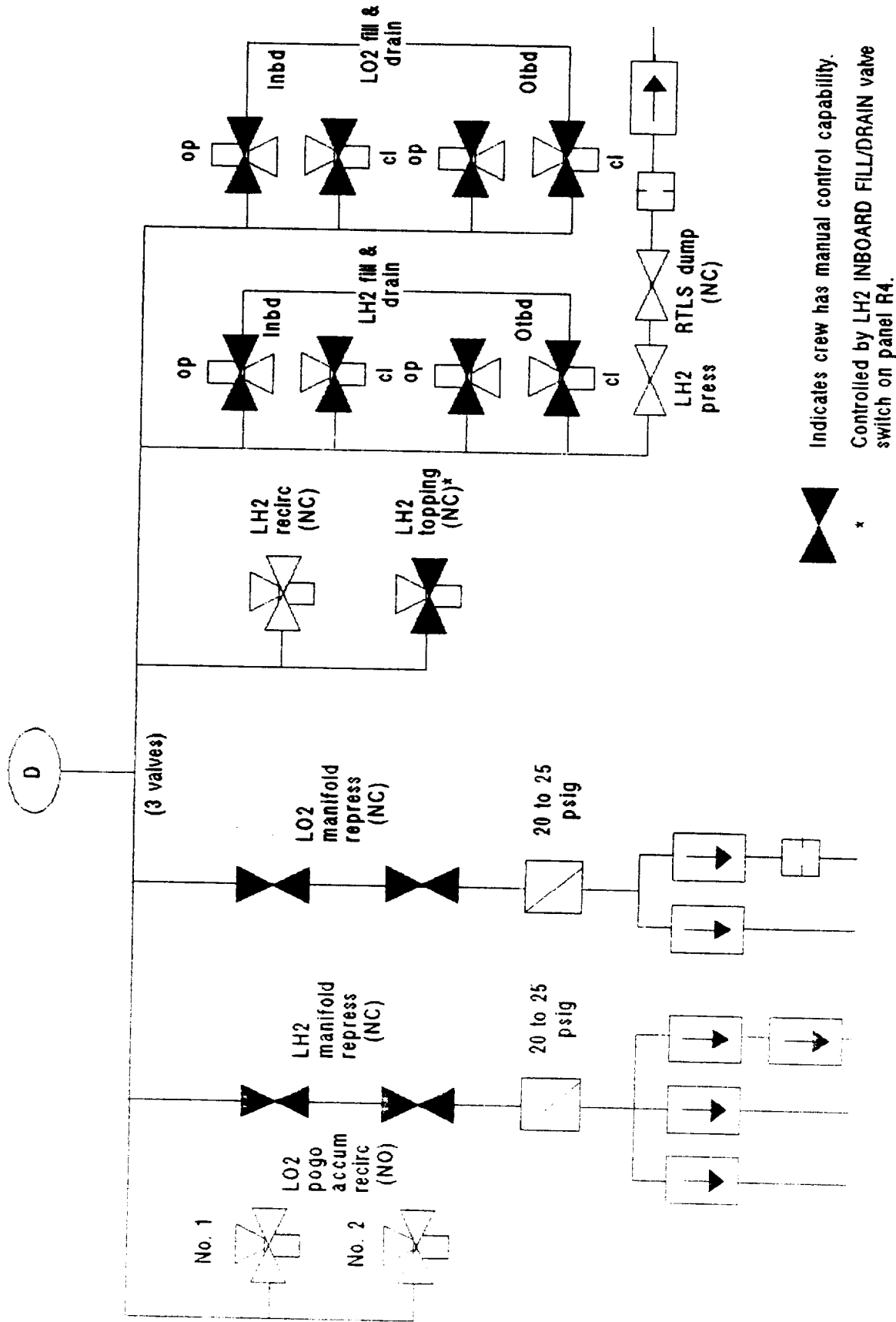
Figure 6A - PNEUMATIC HELIUM DISTRIBUTION
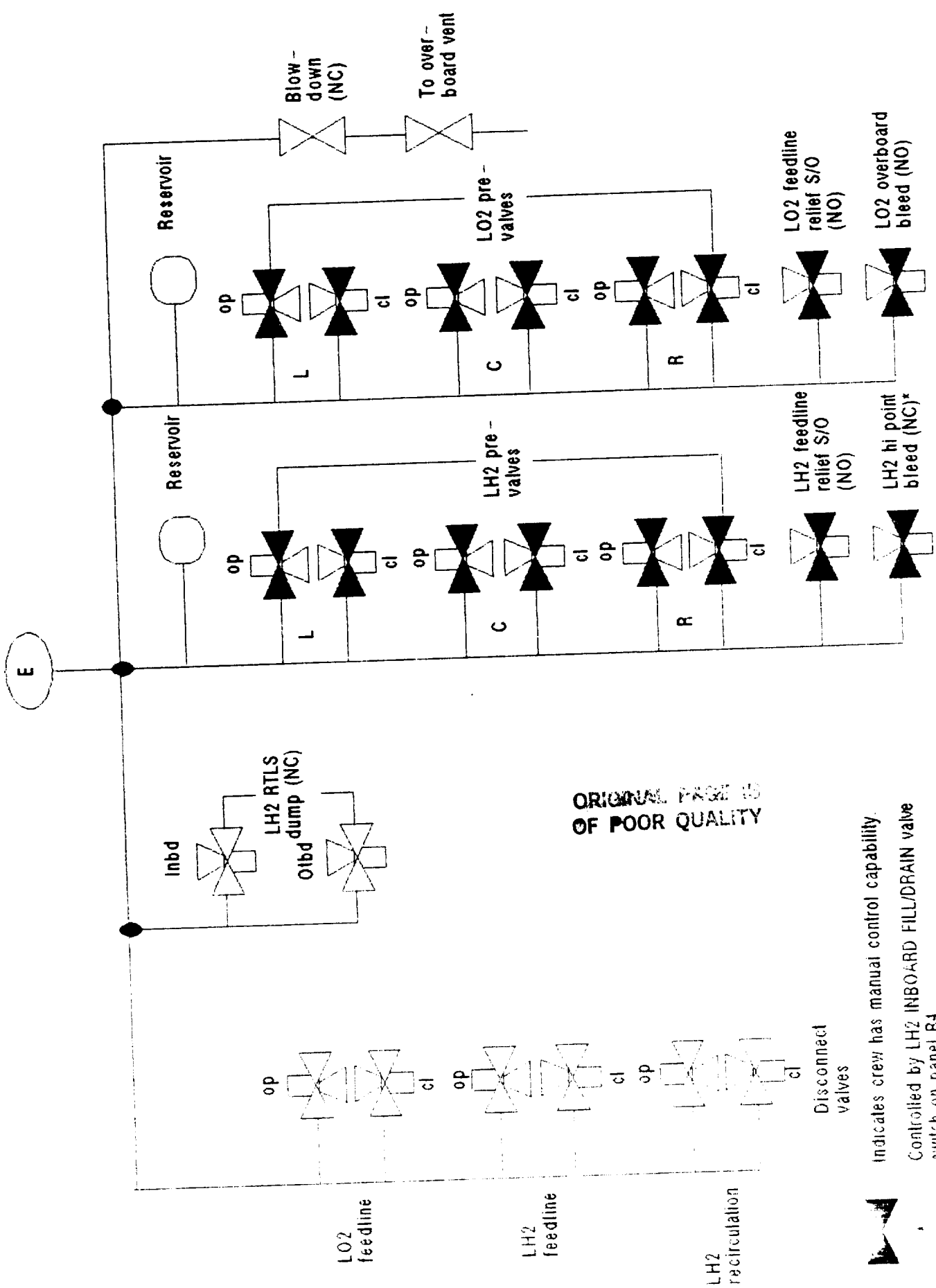
Figure 6B – PNEUMATIC HELIUM DISTRIBUTION (Concluded)

C.   Supply Tank Isolation Valves – There are 8 supply tank isolation valves in the helium subsystem. The valves are connected in parallel to each engine helium supply tank cluster and to the pneumatic supply tank in pairs. In the case of the engine helium supply tanks, each pair of isolation valves control helium flow through 1 leg of a dual helium supply regulator circuit. Each helium supply circuit contains 2 check valves, a filter, an isolation valve, a regulator, and a relief valve.

The 2 isolation valves connected to the pneumatic supply tank are also connected in parallel. The rest of the corresponding helium supply circuit consists of a filter, the 2 isolation valves, a regulator, a relief valve, and a single check valve.

Each isolation valve (with the exception of the 2 pneumatic helium isolation valves) can be individually controlled by its own cockpit switch. The 2 pneumatic helium isolation valves are controlled by a single switch on Panel R2.

D.   Interconnect Valves – Each engine helium supply tank cluster has 2 interconnect valves. Each valve in the pair of interconnect valves is connected in series with a check valve. Because of the check valves, helium can flow through the interconnect valves in 1 direction only. The interconnect valves are oriented in such a manner that 1 interconnect valve controls helium flow into the circuit and the other interconnect valve controls helium flow out of the circuit. The "in" interconnect valve controls the flow into the associated engine helium distribution lines from the pneumatic helium supply tank. The "out" interconnect valve controls helium flow out of the associated engine helium supply tank cluster to the pneumatic helium distribution lines.

Each pair of interconnect valves (per engine) is controlled by a single cockpit switch. This switch has 3 positions: IN OPEN/OUT CLOSE, GPC, and IN CLOSE/OUT OPEN. With the switch in the IN OPEN/OUT CLOSE position, the "in" interconnect valve will be opened and the "out" interconnect valve closed. The IN CLOSE/ OUT OPEN switch position will do the reverse. With the switch in the GPC position, both valves are closed unless commanded to the open position by the GPCs. In the event of an RTLS during a normal flight the GPC will signal the "in" interconnect valve to open automatically at MECO and close automatically 20 seconds later. The "out" interconnect valve is opened automatically at the beginning of the LO_2 dump and closed automatically at

the end of the LH$_2$ dump. If an engine was shut down prior to MECO, however, the corresponding "in" interconnect valve will remain closed at MECO. At any other time, placing the switch in the GPC position results in both interconnect valves closing and remaining closed.

There is an additional crossover (interconnect) valve connected downstream of the left engine helium supply regulators to the pneumatic helium distribution system. In the event of a pneumatic helium regulator failure (Note: only 1 regulator in this line), this crossover valve would be opened, the pneumatic helium isolation valve would be closed, and the left engine helium supply would then provide regulated helium pressure through the crossover valve to the pneumatic helium distribution system. This crossover valve is controlled by its own 3-position cockpit switch. The 3 switch positions are labeled OPEN, GPC, and CLOSE.

E. **Manifold Pressurization Valves** – (Figure 6A) – The manifold pressurization valves are located downstream of the pneumatic helium pressure regulator and are used to control the flow of helium to the propellant manifolds during nominal propellant dumps and manifold repressurization. There are 4 of these valves, grouped in pairs. One pair of valves controls helium pressure to the LO$_2$ propellant manifolds, and the other pair controls helium pressure to the LH$_2$ propellant manifolds.

F. **LH$_2$ RTLS Dump Pressurization Valves** (Figure 6B) – The LH$_2$ RTLS dump pressurization valves are located downstream of the pneumatic helium pressure regulator and are used to control the pressurization of the LH$_2$ propellant manifolds during an RTLS LH$_2$ dump. There are 2 of these valves, connected in series. Unlike the LH$_2$ manifold pressurization valves, the LH$_2$ RTLS dump pressurization valves cannot be controlled from the cockpit. During an RTLS abort, valves will be opened and closed automatically by GPC commands.

One additional difference between the nominal and the RTLS LH$_2$ dumps is in the routing of the helium and the location at which it enters the LH$_2$ feedline manifold. For the nominal LH$_2$ dump, helium passes through the LH$_2$ manifold pressurization valves and enters the feedline manifold in the vicinity of the LH$_2$ feedline disconnect valve. For the RTLS LH$_2$ dump, helium passes through the LH$_2$ RTLS dump pressurization valves and enters the feedline manifold in the vicinity of the LH$_2$ inboard fill/drain valve (on the inboard side).

G.   Pressure Regulators - Each engine helium supply tank
      cluster has 2 pressure regulators, operating in parallel.
      Each regulator controls pressure in 1 leg of a dual-
      redundant helium supply circuit. The pressure regulators
      for the helium supply tanks are set to provide outlet
      pressures in the range of 715 psig to 770 psig. Down-
      tream of this regulator are 2 more regulators, the LH_2
      manifold pressure regulator and the LO_2 manifold pressure
      regulator. These regulators are used only during MPS
      propellant dump and manifold repressurization. Both
      regulators are set to provide outlet pressures in the
      range of 20 to 25 psig. Flow through the regulators is
      controlled by the appropriate set (2) of normally closed
      manifold pressurization valves (Figure 6).

H.   Relief Valves - Downstream of each pressure regulator
      (with the exception of the 2 manifold repress regulators)
      is a relief valve. The purpose of the relief valve is
      to protect the downstream helium distribution lines
      from the overpressurization (and rupture) in the event
      the associated pressure regulator fails fully open. The
      relief valves in the helium supply circuits are set to
      relieve at 825 +/- 25 psig and reseat at 785 psig.

3.2 Interfaces and Locations

The MPS system hardware is located in the aft fuselage compartment
behind the payload bay but forward of the main engines. The MPS
system interfaces with the Orbiter's 3 main engines, the external
tank, and the ground during prelaunch and post landing.

3.3 Hierarchy

Figure 2 illustrates the hierarchy of the MPS hardware components.

4.0 ASSESSMENT RESULTS

The IOA analysis of the MPS hardware initially generated 690 failure mode worksheets and identified 371 Potential Critical Items (PCIs) before starting the assessment process. In order to facilitate comparison, 573 additional failure mode analysis worksheets were generated. These analysis results were compared to the proposed NASA Post 51-L baseline of 1264 FMEAs and 749 CIL items. Upon completion of the assessment, 865 of the 1264 FMEAs were in agreement. Schedule and budget constraints prevented resolution of those that were not in agreement.

A summary of the quantity of NASA FMEAs assessed, versus the recommended IOA baseline, and any issues identified is presented in Table I.

Table I Summary of IOA FMEA Assessment			
Component	NASA	IOA	Issues
Mechanical	606	623	179
Electrical	658	742	220
TOTAL	1264	1365	399

A summary of the quantity of NASA CIL items assessed, versus the recommended IOA baseline, and any issues identified is presented in Table II. The issues count shown accounts for those cases where a RI/NASA analysis was matched to more than one IOA analysis and thus may have been declared an issue on more than one assessment sheet. When the multiple IOA recommended criticalities generated in this way agree, only one issue is included in the count.

Table II: Summary of IOA CIL Assessment			
Component	NASA	IOA	Issues
Mechanical	475	410	86
Electrical	274	301	105
TOTAL	749	711	191

Appendix C presents the detailed assessment worksheets for each failure mode identified and assessed. Appendix D highlights the NASA Critical Items and corresponding IOA worksheet ID. Appendix E contains IOA analysis worksheets supplementing previous analysis results reported in Space Transportation System Engineering and Operations Support (STSEOS) Working Paper No.1.0-WP-VA86001-22, Analysis of the Main Propulsion System, 16 January 1987. Appendix F provides a cross reference between the NASA FMEA and corresponding IOA worksheet(s). IOA recommendations are also summarized.

Table III presents a summary of the IOA recommended failure criticalities for the Post 51-L FMEA baseline.

TABLE III: Summary of IOA Recommended Failure Criticalities							
Criticality:	1/1	2/1R	2/2	3/1R	3/2R	3/3	TOTAL
Mechanical	229	124	2	57	0	211	623
Electrical	10	106	0	360	3	263	742
TOTAL	239	230	2	417	3	474	1365

Of the failure modes analyzed, 714 were determined to be critical items. A summary of the IOA recommended critical items is presented in Table IV.

TABLE IV: Summary of IOA Recommended Critical Items							
Criticality:	1/1	2/1R	2/2	3/1R	3/2R	3/3	TOTAL
Mechanical	229	124	2	35	0	20	410
Electrical	10	106	0	183	0	2	301
TOTAL	239	230	2	218	0	22	711

The scheme for assigning IOA assessment (Appendix C) and analysis (Appendix E) worksheet numbers is shown in Table V.

Table V IOA Worksheet Numbers	
Components	IOA ID Number
LO$_2$ Mechanical LH$_2$ Mechanical Helium Mechanical LO$_2$ Electrical LH$_2$ Electrical Helium Electrical Supplemental Electrical Supplemental Mechanical	1001 - 1292 2001 - 2393 3010 - 4666 5000 - 5779 6011 - 6160 7100 - 7610 1 - 200, 401 - 838 201 - 400, 901 - 924

4.1   Assessment Results - Mechanical Components

The IOA Assessment of the RI/NASA MPS mechanical component FMEA/CIL review resulted in 412 issues, or differences, in analysis results.

Differences between IOA and RI/NASA are attributable to several factors. The Instructions for Preparation of FMEA/CIL (NSTS 22206) document is in many places subject to varying interpretation. IOA and RI/NASA differed on several points.

The RI/NASA team tended to have a broader view of an item's function than did IOA. This led, in many cases, to different criticalities.

Another difficulty was the matter of redundancy. (This is related to the issue of function, noted above.) Again, the RI/NASA team adopted a broader view of redundancy than did IOA. The RI/NASA team, for example, viewed sequential main engine failures as loss of redundancy. IOA believes engines are not redundant to each other because, while they perform identical functions, they do not perform the same function. That is, when one engine is shut down, the remaining engines cannot provide the thrust that has been lost. (An exception would be periods of reduced throttle level, but these are excluded by the FMEA/CIL "worst case" requirement.)

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The NSTS 22206 document, however, requires (2.3.3L) that a functional criticality of 1R be assigned to any failure(s) that result in an engine shutdown. A single engine shutdown will result in an intact abort, thus the logical functional criticality assignment would be 2R, for loss of mission. The RI/NASA analysis arrived at a 1R functional criticality not because of the requirement, but because of an interpretation of redundancy that differs from that of the IOA.

Yet another area of differing opinions was the RI/NASA practice of introducing criticality 1/1 failures, such as line breaks or leaks, as a second failure, thereby creating a 2/1R criticality regardless of the first failure. IOA concludes that, in most cases, this is not consistent with the NSTS 22206 methodology or definitions.

The foregoing differences of opinion and interpretation are the primary causes of the different results of the IOA and RI/NASA FMEA/CIL. Figure 1 presents a comparison of the proposed Post 51-L NASA baseline, with the IOA recommended baseline, and any issues.

4.2   Assessment Results - Electrical/Electronic Components

Analyses of electrical/electronic components are a reflection of their corresponding mechanical components. As such, the same differences of opinion and interpretation resulted in similar differences in criticality assignment as for the mechanical components. These are explained in Section 4.1 above.

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5.0   REFERENCES

Reference documentation available from NASA and Rockwell was used
in the analysis. The documentation used included the following:

1.   Main Propulsion System Workbook, 3/01/82
2.   Main Propulsion System - Fluid Flows, 10/25/78
3.   Shuttle Flight Operations Manual, Volume 8A, MPS, 8/31/81
4.   Booster Systems Briefs, 10/01/84
5.   SSME Training Data, Engine Orientation, 5/31/80
6.   Instructions for Preparation of FMEA and CIL for the STS,
     NSTS 22206, 10/10/86
7.   Space Shuttle Systems Handbook, Volumes 1-2, Revision C,
     DNC-5, 9/13/85
8.   Integrated System Schematic, MPS, OV-099, 103, 104, 5/27/86
9.   STS Mission Problem Tracking List
10. OV-099 Operational Configuration CIL, Mechanical/Fluid
     Systems, Book 1 of 4, 3/01/82
11. OV-099 Operational Configuration CIL, ECLSS/Power Systems,
     Book 2 of 4, 3/01/82
12. OV Operational Configuration CIL, Propulsion Systems, Book 3
     of 4, 11/01/82
13. OV Operational Configuration CIL, Avionics Systems, Book 4
     of 4, 11/01/82
14. Operations and Maintenance Requirements and Specifications,
     12/17/85
15. Operations and Maintenance Requirements and Specification
     Document, 3/06/86
16. Problem Records, 7/22/86
17. Shuttle Orbiter OV-102 CDR, Safety Analysis Report, Volume
     1, Management Summary, 4/27/77
18. Shuttle Orbiter OV-102 CDR, Safety Analysis Report, Volume
     II, Structures Systems, 4/27/77
19. Shuttle Orbiter OV-102 CDR, Safety Analysis Report, Volume
     III, Mechanical Systems, 4/27/77
20. Shuttle Orbiter OV-102 CDR, Safety Analysis Report, Volume
     IV, Propulsion Systems, 4/27/77
21. Shuttle Orbiter OV-102 CDR, Safety Analysis Report, Volume
     V, Power System, 4/27/77
22. Shuttle Orbiter OV-102 CDR, Safety Analysis Report, Volume
     VII, ECLSS, 4/27/77
23. Shuttle Orbiter OV-102 CDR, Safety Analysis Report, Volume
     VIII, Crew Station Systems, 4/27/77
24. FMEA - Lightweight and Heavyweight Tanks, 7/20/81
25. Integrated System Schematic, OV-102, MPS, 10/26/79
26. Crew Software Interface, CSI 2102, 9/30/84

27. Rockwell International Component Specifications:

a. MC271-0073, LH_2 Engine Feed Line Assembly, 10/26/83
b. MC271-0074, LO_2 Engine Feed Line Assembly, 11/07/83
c. MC271-0075, LH_2 Line Assembly, 5/28/80
d. MC271-0076, LH_2/LO_2 Fill & Drain Line Assembly, 12/02/83
e. MC276-0003, 1 Inch GHE & GN2 Disconnect, 1/11/85
f. MC276-0004, 1.5 Inch LO_2/LH_2 Disconnect, 1/04/85
g. MC276-0005, LO_2/LH_2 Orbiter to Ground Fill & Drain Disconnect, 4/18/83
h. MC276-0032, Test Point Couplings, 2/10/75
i. MC280-0017, H2 & O2 Pressurant Flow Control Valve 4/11/84
j. MC281-0030, LH_2 Recirculation Pump Assembly, 4/12/82
k. MC284-0389, LH_2/LO_2 Orbiter to Tank Feed System Disconnect, 2/01/82
l. MC284-0390, LH_2 Orbiter to Tank Recirculation Disconnect, 7/27/79
m. MC284-0391, GH2/GO2 Orbiter to Tank Disconnect, 10/25/79
n. MC284-0395, LO_2/LH_2 1.5/2 Inch Shutoff Valve, 6/27/79
o. MC284-0396, Propellant Shutoff Prevalve, 7/24/82
p. MC284-0397, Propellant Fill & Drain Valve, 6/22/84
q. MC284-0403, Two Way Solenoid Valve, 6/24/80
r. MC284-0406, LO_2/LH_2 Relief Shutoff Valve, 5/05/76
s. ME284-0479, Engine Isolation Check Valve, 8/20/80
t. MC284-0501, Engine Isolation Check Valve, 1/31/83
u. MC284-0515, Dual Check Valve, 11/11/82
v. MC432-0205, LO_2/LH_2 Level Point Sensor, 4/15/81
w. ME284-0472, HE Check Valve, 4/04/80
x. MC284-0404, 3 Way HE Solenoid Valve, 4/01/75
y. MC284-0533, HE Regulator, 11/13/79
z. MC284-0399, LO_2 Manif Repress Regulator
aa. MC284-0398, HE Relief Valve, 12/14/77
bb. MC282-0082, HE Supply Tank, 12/14/76
cc. MC282-0070, LO_2 Prevalve Pneu Accumulator, 10/31/75
dd. ME276-0032, Test Point Coupling, 2/10/75
ee. ME284-0474, LH_2 3/8 Inch Relief Valve, 9/10/74
ff. ME286-0056, HE Supply Filter, 11/04/74
gg. VO70-451756, Pneu HE Panel 4 Test Port
hh. VO70-415532, LH_2 Repress Reg Outlet Test Port, 12/08/75
ii. VO70-415568, LO_2 Repress Reg Outlet Test Port, 5/17/76
jj. VO70-415585, Helium Fill Disc. Check Valve Test Port, 4/16/76
kk. VO70-415446, LO_2 Prepress Disc. Check Valve Test Port, 3/11/76

ll. VO70-415790, HE Supply Test Port, 4/13/78

mm. VO70-415133, Check Valve CV24 Leakage Test Port, 8/21/80

nn. VO70-415545, LH_2 Feed Manif RTLS Repress Orifice, 12/19/75

oo. VO70-414548, LH_2 Pressurization System Test Port Fittings, 3/25/76

pp. VO70-415468, LO_2 Relief System Test Port Fitting, 7/13/77

qq. VO70-415552, GO2 Pressurization Manifold Orifice Assembly, 3/05/76

APPENDIX A
ACRONYMS

AFV	–	Anti-Flood Valve
ASI	–	Augmented Spark Igniter
ATVC	–	Ascent Thrust Vector Control
CCV	–	Chamber Coolant Valve
CCVA	–	Chamber Coolant Valve Assembly
EIU	–	Engine Interface Unit
EMR	–	Engine Mixture Ratio
ET	–	External Tank
FBV	–	Fuel Bleed Valve
FPB	–	Fuel Preburner
FPL	–	Full Power Level
FPOV	–	Fuel Preburner Oxidizer Valve
GCV	–	Gaseous Oxygen Control Valve
GH2	–	Gaseous Hydrogen
GHe	–	Gaseous Helium
GN2	–	Gaseous Nitrogen
GND	–	Ground
GO2	–	Gaseous Oxygen
GSE	–	Ground Support Equipment
H2	–	Hydrogen
He	–	Helium
HEX	–	Heat Exchanger
HGM	–	Hot Gas Manifold
HPFT	–	High Pressure Fuel Turbopump
HPOT	–	High Pressure Oxidizer Turbopump
HPV	–	Helium Precharge Valve
I/C	–	Interconnect
ISP	–	Specific Impulse
LH2	–	Liquid Hydrogen
LO2	–	Liquid Oxygen
LOX	–	Liquid Oxygen
LPFT	–	Low Pressure Fuel Turbopump
LPOT	–	Low Pressure Oxidizer Turbopump
LPS	–	Launch Processor System
		Launch Processing System
MANF	–	Manifold
MCC	–	Main Combustion Chamber
ME	–	Main Engine
MEC	–	Master Events Controller
MECO	–	Main Engine Cutoff
MFV	–	Main Fuel Valve
MOV	–	Main Oxidizer Valve
MPL	–	Minimum Power Level
MPS	–	Main Propulsion System
MVA	–	Main Valve Actuator
NC	–	Normally Closed
NO	–	Normally Open
NPSP	–	Net Positive Suction Pressure

ACRONYMS

OBV   –   Oxidizer Bleed Valve
OPB   –   Oxidizer Preburner
OPOV   –   Oxidizer Preburner Oxidizer Valve
PAV   –   Pressure Actuated Valve
P/B   –   Preburner
PBVA   –   Propellant Bleed Valve Assembly
Pc   –   Chamber Pressure
PCI   –   Potential Critical Item
PCV   –   Purge Check Valves
PMS   –   Propellant Management Subsystem
POP   –   Preburner Oxidizer Pump
RIV   –   Recirculation Isolation Valve
RPC   –   Remote Power Controller
RPL   –   Rated Power Level
SRB   –   Solid Rocket Booster
SSME   –   Space Shuttle Main Engine
SSMEC   –   SSME Controller

APPENDIX B

DEFINITIONS, GROUND RULES, AND ASSUMPTIONS

B.1   Definitions
B.2   Project Level Ground Rules and
      Assumptions
B.3   Subsystem-Specific Ground Rules
      and Assumptions

APPENDIX B
DEFINITIONS, GROUND RULES, AND ASSUMPTIONS

B.1 Definitions

Definitions contained in <u>NSTS 22206, Instructions For Preparation of FMEA/CIL, 10 October 1986</u>, were used with the following amplifications and additions.

<u>INTACT ABORT DEFINITIONS</u>:

> <u>RTLS</u> - begins at transition to OPS 6 and ends at transition to OPS 9, post-flight
>
> <u>TAL</u> - begins at declaration of the abort and ends at transition to OPS 9, post-flight
>
> <u>AOA</u> - begins at declaration of the abort and ends at transition to OPS 9, post-flight
>
> <u>ATO</u> - begins at declaration of the abort and ends at transition to OPS 9, post-flight

<u>CREDIBLE (CAUSE)</u> - an event that can be predicted or expected in anticipated operational environmental conditions. Excludes an event where multiple failures must first occur to result in environmental extremes

<u>CONTINGENCY CREW PROCEDURES</u> - procedures that are utilized beyond the standard malfunction procedures, pocket checklists, and cue cards

<u>EARLY MISSION TERMINATION</u> - termination of onorbit phase prior to planned end of mission

<u>EFFECTS/RATIONALE</u> - description of the case which generated the highest criticality

<u>HIGHEST CRITICALITY</u> - the highest functional criticality determined in the phase-by-phase analysis

<u>MAJOR MODE (MM)</u> - major sub-mode of software operational sequence (OPS)

<u>MC</u> - Memory Configuration of Primary Avionics Software System (PASS)

<u>MISSION</u> - assigned performance of a specific Orbiter flight with payload/objective accomplishments including orbit phasing and altitude (excludes secondary payloads such as GAS cans, middeck P/L, etc.)

MULTIPLE ORDER FAILURE - describes the failure due to a single cause or event of all units which perform a necessary (critical) function

OFF-NOMINAL CREW PROCEDURES - procedures that are utilized beyond the standard malfunction procedures, pocket checklists, and cue cards

OPS - software operational sequence

PRIMARY MISSION OBJECTIVES - worst case primary mission objectives are equal to mission objectives

PHASE DEFINITIONS:

PRELAUNCH PHASE - begins at launch count-down Orbiter power-up and ends at moding to OPS Major Mode 102 (liftoff)

LIFTOFF MISSION PHASE - begins at SRB ignition (MM 102) and ends at transition out of OPS 1 (Synonymous with ASCENT)

ONORBIT PHASE - begins at transition to OPS 2 or OPS 8 and ends at transition out of OPS 2 or OPS 8

DEORBIT PHASE - begins at transition to OPS Major Mode 301 and ends at first main landing gear touchdown

LANDING/SAFING PHASE - begins at first main gear touchdown and ends with the completion of post-landing safing operations

APPENDIX B
DEFINITIONS, GROUND RULES, AND ASSUMPTIONS

B.2   IOA Project Level Ground Rules and Assumptions

The philosophy embodied in <u>NSTS 22206, Instructions for Preparation of FMEA/CIL, 10 October 1986</u>, was employed with the following amplifications and additions.

1. The operational flight software is an accurate implementation of the Flight System Software Requirements (FSSRs).

    RATIONALE: Software verification is out-of-scope of this task.

2. After liftoff, any parameter which is monitored by system management (SM) or which drives any part of the Caution and Warning System (C&W) will support passage of Redundancy Screen B for its corresponding hardware item.

    RATIONALE: Analysis of on-board parameter availability and/or the actual monitoring by the crew is beyond the scope of this task.

3. Any data employed with flight software is assumed to be functional for the specific vehicle and specific mission being flown.

    RATIONALE: Mission data verification is out-of-scope of this task.

4. All hardware (including firmware) is manufactured and assembled to the design specifications/drawings.

    RATIONALE: Acceptance and verification testing is designed to detect and identify problems before the item is approved for use.

5. All Flight Data File crew procedures will be assumed performed as written, and will not include human error in their performance.

    RATIONALE: Failures caused by human operational error are out-of-scope of this task.

6. All hardware analyses will, as a minimum, be performed at the level of analysis existent within NASA/Prime Contractor Orbiter FMEA/CILs, and will be permitted to go to greater hardware detail levels but not lesser.

    RATIONALE: Comparison of IOA analysis results with other analyses requires that both analyses be performed to a comparable level of detail.

7. Verification that a telemetry parameter is actually monitored during AOS by ground-based personnel is not required.

   RATIONALE: Analysis of mission-dependent telemetry availability and/or the actual monitoring of applicable data by ground-based personnel is beyond the scope of this task.

8. The determination of criticalities per phase is based on the worst case effect of a failure for the phase being analyzed. The failure can occur in the phase being analyzed or in any previous phase, whichever produces the worst case effects for the phase of interest.

   RATIONALE: Assigning phase criticalities ensures a thorough and complete analysis.

9. Analysis of wire harnesses, cables, and electrical connectors to determine if FMEAs are warranted will not be performed nor FMEAs assessed.

   RATIONALE: Analysis was substantially complete prior to NSTS 22206 ground rule redirection.

10. Analysis of welds or brazed joints that cannot be inspected will not be performed nor FMEAs assessed.

    RATIONALE: Analysis was substantially complete prior to NSTS 22206 ground rule redirection.

11. Emergency system or hardware will include burst discs and will exclude the EMU Secondary Oxygen Pack (SOP), pressure relief valves and the landing gear pyrotechnics.

    RATIONALE: Clarify definition of emergency systems to ensure consistency throughout IOA project.

APPENDIX B

B.3 SUBSYSTEM SPECIFIC GROUNDRULES AND ASSUMPTIONS

The IOA was performed to the component/assembly level of the sub-system of the MPS. The analysis considered the worst case effects of the hardware/functional failure on the subsystem, mission, and crew/vehicle safety.

1. All like and unlike redundancy will be considered in determining functional criticality. The MPS function is to provide delta V for the vehicle to reach orbit. Since loss of 1 main engine during the early part of ascent requires a mission abort, any failure that results in the loss of 1 main engine will be considered loss of mission (Crit 2). Since, for most of the ascent, 2 engines are required for a successful abort, loss of 2 or 3 engines will be considered loss of life/vehicle (Crit 1).

   RATIONALE: These failure modes are directly applicable to worst case MPS subsystem component analyses.

2. Only MPS Orbiter items will be analyzed for the MPS interface to the Ground, External Tank, and the Main Engines.

   RATIONALE: Non-orbiter program hardware are not within the scope of this task.

3. Aborts are assumed to be caused by loss of an engine. Any failure within a component that can shut down an engine could leave only 1 engine in operation and therefore could lead to loss of vehicle (Crit 1).

   RATIONALE: This failure mode is directly applicable to worst case MPS subsystem component analysis.

APPENDIX C
DETAILED ASSESSMENT

This section contains the IOA assessment worksheets generated during the assessment of this subsystem. The information on these worksheets resulted from the comparison of the RI/NASA FMEA/CIL (Post 51-L) to the IOA analysis worksheets in MDAC Working Paper 1.0-WP-VA86001-22 with additional worksheets in Appendix E. Each of these worksheets identifies the NASA FMEA being assessed, corresponding MDAC Analysis Worksheet ID (Appendix E), hardware item, criticality, redundancy screens, and recommendations. For each failure mode, the highest assessed hardware and functional criticality is compared and discrepancies noted as "N" in the compare row under the column where the discrepancy occurred.

LEGEND FOR IOA ASSESSMENT WORKSHEETS

Hardware Criticalities:

1 = Loss of life or vehicle
2 = Loss of mission or next failure of any redundant item (like or unlike) could cause loss of life/vehicle
3 = All others

Functional Criticalities:

1R = Redundant hardware items (like or unlike) all of which, if failed, could cause loss of life or vehicle
2R = Redundant hardware items (like or unlike) all of which, if failed, could cause loss of mission

Redundancy Screens A, B and C:

P = Passed Screen
F = Failed Screen
NA = Not Applicable

NASA Data :

Baseline = NASA FMEA/CIL
New = Baseline with Proposed Post 51-L Changes

CIL Item :

X = Included in CIL

Compare Row :

N = Non compare for that column (deviation)

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88
ASSESSMENT ID: MPS-001X
NASA FMEA #: 2025-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 1
ITEM: FUSE (DIFFERENTIAL PRESSURE TRANSDUCER CIRCUIT)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-002X   BASELINE [   ]
NASA FMEA #:   2000-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 2
ITEM: REMOTE POWER CONTROLLERS, 3A (4)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                     ADEQUATE   [   ]
                                   INADEQUATE   [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88
ASSESSMENT ID: MPS-003X
NASA FMEA #: 2001-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 3
ITEM: DIODES, 12A (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-004X   BASELINE [   ]
NASA FMEA #:   2001-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 4
ITEM: DIODE, 12A (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

            CRITICALITY   REDUNDANCY SCREENS   CIL
               FLIGHT   ITEM
            HDW/FUNC   A   B   C

    NASA [3 /1R]   [P]   [P]   [P]   [   ] *
    IOA   [3 /1R]   [P]   [P]   [P]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-005X   BASELINE [   ]
NASA FMEA #:   2002-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 5
ITEM: DIODES, 12A (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [ ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                ADEQUATE   [   ]
                              INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-006X   BASELINE [   ]
NASA FMEA #:   2002-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 6
ITEM: DIODE, 12A (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-007X   BASELINE [ ]
NASA FMEA #: 2003-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 7
ITEM: HYBRID DRIVER CONTROLLERS, TYPE I (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[　] *
IOA	[3 /1R]	[P]	[P]	[P]	[　]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/] [ ] [ ] [ ] [ ]
               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
             ADEQUATE [ ]
            INADEQUATE [ ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-008X   BASELINE [   ]
NASA FMEA #:   2004-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 8
ITEM: HYBRID DRIVER CONTROLLERS, TYPE III (4)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                INADEQUATE   [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/09/88
ASSESSMENT ID: MPS-009X
NASA FMEA #:   2381-2

NASA DATA:
    BASELINE [   ]
        NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 9
ITEM: DIODES, 12A (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[N]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                              ADEQUATE   [   ]
                              INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/09/88   NASA DATA:
ASSESSMENT ID: MPS-010X   BASELINE [   ]
NASA FMEA #:   2381-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 10
ITEM: DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [P]   [P]   [D]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:
THE FAILURE IS READILY DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/09/88   NASA DATA:
ASSESSMENT ID: MPS-011X   BASELINE [   ]
NASA FMEA #:   2038-5   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 11
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY      REDUNDANCY SCREENS          CIL
               FLIGHT                                    ITEM
              HDW/FUNC      A          B          C

      NASA  [ 2 /1R ]    [ P ]      [ P ]      [ P ]     [ X ] *
      IOA   [ 2 /1R ]    [ P ]      [ P ]      [ P ]     [ X ]

COMPARE     [   /   ]    [   ]      [   ]      [   ]     [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]     [   ]      [   ]      [   ]         [   ]
                                                       (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                              ADEQUATE   [X]
                                              INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/22/88   NASA DATA:
ASSESSMENT ID: MPS-012X   BASELINE [   ]
NASA FMEA #:   2263-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 12
ITEM: HIGH POINT OPEN HDC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-013X   BASELINE [   ]
NASA FMEA #:   2263-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 13
ITEM: HYBRID DRIVER CONTROLLER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [2 /1R]   [P]   [P]   [P]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]
REMARKS:
FAILRUE IS DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-014X   BASELINE [   ]
NASA FMEA #:   2267-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 14
ITEM: FILL AND DRAIN OPEN SWITCH BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-015X   BASELINE [   ]
NASA FMEA #:   2267-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 15
ITEM: FILL AND DRAIN OPEN SWITCH BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

           [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-016X   BASELINE [   ]
NASA FMEA #:   2272-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 16
ITEM: HIGH POINT OPEN SWITCH BLOCKING DIODES (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [3 /1R]   [P]   [P]   [P]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                         INADEQUATE   [   ]

REMARKS:
ONLY REF AVAIL: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-017X   NASA DATA:
NASA FMEA #:   2272-2   BASELINE [   ]
                                             NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 17
ITEM: HIGH POINT OPEN SWITCH BLOCKING DIODES (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
SECOND FAILURE COULD ALLOW GH2 TO ENTER SSME's AT IGNITION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-018X   BASELINE [   ]
NASA FMEA #:   2275-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 18
ITEM: FILL AND DRAIN LA1 MDM BLOCKING DIODE (1)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

            [3 /1R]   [P]   [P]   [P]   [D]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
FAILURE WILL ELIMINATE REDUNDANCY AGAINST A PREMATURE CLOSE OF
THE F/D VALVE. SECOND FAILURE CANNOT CLOSE THE VALVE BECAUSE OF
BLOCKING DIODES AND MDM OPEN COMMANDS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-019X
NASA FMEA #: 2275-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 19
ITEM: FILL AND DRAIN LA1 MDM BLOCKING DIODE (1)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [ ]
                                    INADEQUATE [ ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-020X   BASELINE [   ]
NASA FMEA #:   2278-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 20
ITEM: HIGH POINT LA1 MDM BLOCKING DIODE (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                               ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:
SECOND FAILURE COULD LEAD TO GH2 INGESTION AT SSME START.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-021X
NASA FMEA #:   2278-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 21
ITEM: HIGH POINT LA1 MDM BLOCKING DIODE (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-022X   BASELINE [   ]
NASA FMEA #:   202600-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 22
ITEM: HIGH POINT MONITOR RESISTORS, 5.1K (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY    REDUNDANCY SCREENS        CIL
              FLIGHT                                 ITEM
             HDW/FUNC     A        B        C

   NASA    [ 3 /3 ]    [ NA]    [ NA]    [ NA]     [    ] *
    IOA    [ 3 /3 ]    [ NA]    [ NA]    [ NA]     [    ]

COMPARE    [   /   ]    [    ]   [    ]   [    ]     [    ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]    [    ]   [    ]   [    ]        [    ]
                                                   (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-023X
NASA FMEA #: NA

NASA DATA:
BASELINE [　]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 23
ITEM: MDM OA1

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[　]	[　]	[　]	[　] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[　]
COMPARE	[N /N]	[N]	[N]	[N]	[　]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [　]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [　]
INADEQUATE [　]

REMARKS:
THE FAILURE INHIBITS MONITORING

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-024X   BASELINE [   ]
NASA FMEA #:   2056A-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 24
ITEM: OPEN SWITCH BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [ ]
                                    INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-025X   BASELINE [   ]
NASA FMEA #:   2354A-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 25
ITEM: LA1 MDM ISOLATION DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                             (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
DIODE NOT SHOWN ON VS72-941102, SHT 14.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-026X
NASA FMEA #:   2354A-2

NASA DATA:
BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 26
ITEM: LA1 MDM ISOLATION DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
DIODE NOT SHOWN ON VS72-941102, SHT 14.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-027X
NASA FMEA #:   2355A-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 27
ITEM: OPEN SWITCH BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
DIODE NOT SHOWN ON VS72-941102, SHT 14.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-028X   BASELINE [   ]
NASA FMEA #:   2355A-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 28
ITEM: OPEN SWITCH BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

     [3 /3]   [NA]   [NA]   [NA]   [D]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                             ADEQUATE [   ]
                           INADEQUATE [   ]

REMARKS:
SHORTING OF THE OPEN CONTACT TO GROUND IN THIS SWITCH IS
INFEASIBLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-029X
NASA FMEA #:   2356A-2

NASA DATA:
  BASELINE [ ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 29
ITEM: OPEN MDM ISOLATION DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                ADEQUATE [   ]
                                INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-030X   BASELINE [   ]
NASA FMEA #:   2357A-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 30
ITEM: CLOSE SWITCH ISOLATION DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

       [/]   [ ]   [ ]   [ ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-031X   BASELINE [   ]
NASA FMEA #:   2358A-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 31
ITEM: CLOSE MDM ISOLATION DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                  INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-032X   BASELINE [   ]
NASA FMEA #:   2359A-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 32
ITEM: TRANSIENT SUPPRESSION DIODES (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

           [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]

REMARKS:

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-033X
NASA FMEA #:   2359A-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 33
ITEM: TRANSIENT SUPPRESSION DIODES (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
SHORT IN DIODE COULD LEAD TO LOSS OF VEHICLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-034X   BASELINE [   ]
NASA FMEA #:   2360A-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 34
ITEM: MONITORING RESISTORS, 2.2K (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-035X   BASELINE [   ]
NASA FMEA #:   2372A-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 35
ITEM: SWITCH SCAN BLEED RESISTORS, 1.8K (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-036X   BASELINE [   ]
NASA FMEA #:   NA   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 36
ITEM: MDM OA2

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-037X   BASELINE [   ]
NASA FMEA #:   NA   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 37
ITEM: MDM LA1

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

    [2 /1R]   [P]   [P]   [P]   [A]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]
REMARKS:
MDM LA1 NOT SHOWN ON VS72-941102, SHT 14.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-038X
NASA FMEA #:   2060-5

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 38
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]

REMARKS:
LOSS OF ALL REDUNDANCY WILL ALLOW VALVE TO OPEN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-039X   BASELINE [   ]
NASA FMEA #:   2062-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 39
ITEM: CLOSE HDC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-040X   BASELINE [   ]
NASA FMEA #:   2039-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 40
ITEM: RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-041X   BASELINE [   ]
NASA FMEA #:   2039-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 41
ITEM: RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-042X   BASELINE [   ]
NASA FMEA #:   2240A-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 42
ITEM: DIODE, RPC CROSSOVER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-043X   BASELINE [   ]
NASA FMEA #:   2240-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 43
ITEM: DIODE, RPC CROSSOVER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

           [/]   [   ]   [   ]   [   ]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-044X   BASELINE [   ]
NASA FMEA #:   2397-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 44
ITEM: RPC A OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

           CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
           HDW/FUNC   A   B   C

    NASA [3 /1R]   [F]   [F]   [P]   [X] *
     IOA [3 /1R]   [P]   [F]   [P]   [X]

COMPARE   [/   ]   [N]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [3 /1R]   [P]   [F]   [P]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]

REMARKS:
THE DIODE MIGHT BE CAPABLE OF CHECKOUT DURING NORMAL GROUND
TURNAROUND WITH NO DESIGN MODIFICATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-045X   BASELINE [   ]
NASA FMEA #:   2397-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 45
ITEM: RPC A OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-046X   BASELINE [   ]
NASA FMEA #:   N/A   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 46
ITEM: POSITION INDICATOR SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88
ASSESSMENT ID: MPS-047X
NASA FMEA #: 2247-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 47
ITEM: CLOSE HDC (TYPE I)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
SERIES CONFIGURATION AND BISTABLE FEATURE PREVENT VALVE CLOSURE
ON A SECOND FAILURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-048X   BASELINE [   ]
NASA FMEA #:   2246-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 48
ITEM: OPEN HDC (TYPE I)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY    REDUNDANCY SCREENS          CIL
                 FLIGHT                                  ITEM
               HDW/FUNC      A        B        C

      NASA   [ 3 /1R ]     [ P ]    [ P ]    [ P ]     [   ] *
      IOA    [ 3 /1R ]     [ P ]    [ P ]    [ P ]     [   ]

COMPARE      [   /   ]     [   ]    [   ]    [   ]     [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
             [   /   ]     [   ]    [   ]    [   ]          [   ]
                                                      (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-049X   BASELINE [   ]
NASA FMEA #:   2245-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 49
ITEM: CLOSE HDC, TYPE III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88
ASSESSMENT ID: MPS-050X
NASA FMEA #:   2249-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 50
ITEM: DIODE, CLOSE RPC B OUTPUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88
ASSESSMENT ID: MPS-051X
NASA FMEA #:   2249-3

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 51
ITEM: DIODE, CLOSE RPC B OUTPUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-052X   BASELINE [   ]
NASA FMEA #:   2251-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 52
ITEM: DIODE, CLOSING CROSSOVER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
FAILURE MAY NOT BE DETECTED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-053X   BASELINE [ ]
NASA FMEA #: 2251-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 53
ITEM: DIODE, CLOSING CROSSOVER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

   [/] [   ] [   ] [   ]   [   ]
                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
              ADEQUATE [   ]
            INADEQUATE [   ]
REMARKS:
FAILURE CAN SHORT ALL CLOSING COMMANDS TO GROUND, PREVENTING
VALVE CLOSURE. ET SEP WITH VALVE OPEN CAN CAUSE LOSS OF VEHICLE.
MECHANICAL LINKAGE PROVIDES REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-054X   BASELINE [   ]
NASA FMEA #:   2248-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 54
ITEM: DIODE, OPEN RPC B OUTPUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-055X
NASA FMEA #:   2248-3

NASA DATA:
  BASELINE [   ]
      NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 55
ITEM: DIODE, OPEN RPC B OUTPUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88

ASSESSMENT ID: MPS-056X

NASA FMEA #: 2250-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS

MDAC ID: 56

ITEM: DIODE, OPEN CROSSOVER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ASSESSMENT IS FOR 1 OPEN CROSSOVER DIODE, 12A.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-057X   BASELINE [   ]
NASA FMEA #:   2250-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 57
ITEM: DIODE, OPEN CROSSOVER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[·]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
FAILURE CAN SHORT ALL OPEN COMMANDS TO GROUND, VENTING OPENING
PRESSURE AND ALLOWING VALVE TO CLOSE DURING MAIN ENGINE BURN.
BISTABLE FEATURE IS THE ONLY REDUNDANCY AGAINST PREMATURE
CLOSURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-058X   BASELINE [   ]
NASA FMEA #:   2254-1   NEW [   ]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 58
ITEM: OPEN POSITION SWITCH MONITOR RESISTOR (1)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
RESISTOR NOT SHOWN ON VS72-941102, SHT 15.
REF: 05-6J-200900-1

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-059X   BASELINE [   ]
NASA FMEA #:   2244-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 59
ITEM: OPEN HDC, TYPE III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [X]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-060X   BASELINE [   ]
NASA FMEA #:   2398-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 60
ITEM: DIODE, CLOSE RPC C OUTPUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                       ADEQUATE   [   ]
                                     INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-061X
NASA FMEA #:   2398-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 61
ITEM: DIODE, CLOSE RPC C OUTPUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
SECOND FAILURE CAN SHORT ALL CLOSE COMMANDS TO GROUND, PREVENTING
VALVE CLOSURE. MECAHNICAL LINKAGE PROVIDES REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-062X   BASELINE [   ]
NASA FMEA #:   2399-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 62
ITEM: DIODE, OPEN RPC C OUTPUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-063X   BASELINE [   ]
NASA FMEA #:   2399-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 63
ITEM: DIODE, OPEN RPC C OUTPUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
ONLY REF: MPS/EPDC FMEA REVIEW SUMMARY 8/17/87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-064X   BASELINE [   ]
NASA FMEA #:   2100-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 64
ITEM: OPEN HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

   [2 /1R]   [P]   [P]   [P]   [A]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
THE FAILURE WILL PREVENT VALVE CLOSURE DURING ET SEPARATION. A
FAILURE OF MECHANICAL REDUNDANCY COULD CAUSE ET/ORBITER
RECONTACT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88
ASSESSMENT ID: MPS-065X
NASA FMEA #: 2100-3

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 65
ITEM: OPEN HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

[1 /1]   [NA]   [NA]   [NA]   [ ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
ANALYSIS IS FOR ABORT ONLY. THE FAILURE PREVENTS PROPELLANT
ISOLATION FROM FAILED MAIN ENGINE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-066X   BASELINE [   ]
NASA FMEA #:   2102-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 66
ITEM: CLOSE HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY      REDUNDANCY SCREENS           CIL
                FLIGHT                                      ITEM
               HDW/FUNC       A         B         C

      NASA   [ 3 /1R ]     [ P ]     [ P ]     [ P ]     [    ] *
       IOA   [ 3 /1R ]     [ P ]     [ P ]     [ P ]     [    ]

COMPARE    [   /   ]       [    ]     [    ]     [    ]     [    ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]     [    ]     [    ]     [    ]          [    ]
                                                        (ADD/DELETE)
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* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-067X   BASELINE [   ]
NASA FMEA #:   2101-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 67
ITEM: CLOSE HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [P]   [P]   [D]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
FMEA NO. 05-6J-2101-3 REV 10/10/87 IS FOR THE ABORT CASE ONLY.
THIS ASSESSMENT IS FOR THE ABORT CASE ONLY. INADVERTENT POWER TO
THE CLOSE SOLENOID DOES NOT CAUSE A LOSS OF CLOSE SOLENOID POWER.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-068X   BASELINE [   ]
NASA FMEA #:   NA   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 68
ITEM: MDM OA3

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-069X   BASELINE [   ]
NASA FMEA #:   2026-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 69
ITEM: HDC - GND C/O COMMAND POWER (5)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-070X   BASELINE [   ]
NASA FMEA #:   2026-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 70
ITEM: HDC - GND C/O COMMAND POWER (5)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-071X
NASA FMEA #:   2030-1

NASA DATA:
  BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 71
ITEM: MONITOR RESISTORS (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-072X   BASELINE [   ]
NASA FMEA #:   2031-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 72
ITEM: TRANSIENT SUPPRESSION DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

          [3 /1R]   [P]   [F]   [P]   [A]
                                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-073X
NASA FMEA #:   2031-1

NASA DATA:
  BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 73
ITEM: ZENER DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                ADEQUATE   [   ]
                            INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-074X   BASELINE [   ]
NASA FMEA #:   2032-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 74
ITEM: HDC, RELAY CONTROL POWER (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

     [/]   [ ]   [ ]   [ ]   [ ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                ADEQUATE   [   ]
                                INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-075X
NASA FMEA #:   2032-2

NASA DATA:
  BASELINE [   ]
  NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 75
ITEM: HDC, RELAY CONTROL POWER (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [   ]
                                             (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
NASA DOES NOT CALL THE FAILURE OF A TRANSDUCER AND THE SWITCH TO
STANDBY TRANSDUCER A FAILURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-076X   BASELINE [   ]
NASA FMEA #:   2033-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 76
ITEM: RELAY (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-077X   BASELINE [   ]
NASA FMEA #:   2033-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 77
ITEM: RELAY (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-078X   BASELINE [   ]
NASA FMEA #:   2034-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 78
ITEM: BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

     [3 /1R]   [P]   [F]   [P]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
A SECOND FAILURE WILL NOT OVERPRESSURIZE THE ET.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-079X   BASELINE [   ]
NASA FMEA #:   2034-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 79
ITEM: BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /]	[N]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [P]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
A SECOND FAILURE WILL NOT OVERPRESSURIZE THE ET, BUT A THIRD
FAILURE COULD CAUSE ET OVERPRESSURIZATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-080X   BASELINE [   ]
NASA FMEA #:   2035-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 80
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY    REDUNDANCY SCREENS          CIL
                 FLIGHT                                  ITEM
              HDW/FUNC       A          B        C

        NASA [ 3 /1R ]     [ P ]     [ NA]    [ P ]      [   ] *
         IOA [ 3 /1R ]     [ P ]     [ NA]    [ P ]      [   ]

COMPARE      [   /   ]     [   ]     [   ]    [   ]      [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
             [   /   ]     [   ]     [   ]    [   ]        [   ]
                                                        (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-081X   BASELINE [   ]
NASA FMEA #:   2035-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 81
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[NA]	[P]	[X] *
IOA	[2 /1R]	[P]	[NA]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-082X
NASA FMEA #:   2035-3

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 82
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-083X
NASA FMEA #:   2036-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 83
ITEM: SWITCH BLOCKING DIODES (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-084X   BASELINE [   ]
NASA FMEA #:   2036-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 84
ITEM: SWITCH BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE [   ]
                                       INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-085X
NASA FMEA #:   2042-1

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 85
ITEM: SWITCH SCAN MONITOR RESISTOR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                                    ADEQUATE   [   ]
                                  INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-086X   BASELINE [   ]
NASA FMEA #:   2043-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 86
ITEM: SWITCH SCAN BLEED RESISTOR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                            ADEQUATE [   ]
                         INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-087X   BASELINE [   ]
NASA FMEA #:   2235-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 87
ITEM: SW SCAN DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

       [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-088X   BASELINE [   ]
NASA FMEA #:   2235-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 88
ITEM: SWITCH SCAN DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

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                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-089X   BASELINE [   ]
NASA FMEA #:   2236-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 89
ITEM: MDM INHIBIT COMMAND DIODES (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [P]   [P]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-090X   BASELINE [   ]
NASA FMEA #:   2236-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 90
ITEM: MDM INHIBIT COMMAND DIODES (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

           [/]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/09/88
ASSESSMENT ID: MPS-091X
NASA FMEA #:   2340-1

NASA DATA:
  BASELINE [ ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 91
ITEM: LOCK RPC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [/]   [   ]   [   ]   [   ]   [   ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                              ADEQUATE [   ]
                              INADEQUATE [   ]

REMARKS:
NASA FMEA NO. 05-6J-2340-1 REV. 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-092X
NASA FMEA #: 2340-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 92
ITEM: LOCK RPC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA NO. 05-6J-2340-2 REV. 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-093X
NASA FMEA #:   2341-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 93
ITEM: UNLOCK RPC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
NASA FMEA NO. 05-6J-2341-1 REV. 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-094X   BASELINE [   ]
NASA FMEA #:   2341-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 94
ITEM: UNLOCK RPC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:
NASA FMEA NO. 05-6J-2341-2 REV. 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-095X
NASA FMEA #: 2342-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 95
ITEM: LOCK HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
NASA FMEA NO. 05-6J-2342-1 REV. 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-096X
NASA FMEA #:   2342-2

NASA DATA:
  BASELINE [   ]
      NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 96
ITEM: LOCK HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                            ADEQUATE   [   ]
                         INADEQUATE [   ]

REMARKS:
NASA FMEA NO. 05-6J-2342-2 REV. 10/10/87 CONTAINS TEXT EXPLAINING THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-097X   BASELINE [   ]
NASA FMEA #:   2343-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 97
ITEM: UNLOCK HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
NASA FMEA NO. 05-6J-2343-1 REV. 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-098X   BASELINE [   ]
NASA FMEA #:   2343-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 98
ITEM: UNLOCK HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]

REMARKS:
NASA FMEA NO. 05-6J-2343-2 REV. 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-099X   BASELINE [   ]
NASA FMEA #:   2344-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 99
ITEM: LOCK HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [ ]   [ ]   [ ]   [ ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-100X   BASELINE [   ]
NASA FMEA #:   2344-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 100
ITEM: LOCK HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [ ]   [ ]   [ ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                ADEQUATE   [   ]
                                INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-101X   BASELINE [   ]
NASA FMEA #:   2345-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 101
ITEM: UNLOCK HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-102X
NASA FMEA #:   2345-2

NASA DATA:
  BASELINE [   ]
      NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 102
ITEM: UNLOCK HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [/]   [ ]   [ ]   [ ]   [ ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                            ADEQUATE [   ]
                          INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-103X   BASELINE [   ]
NASA FMEA #:   2346-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 103
ITEM: LOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

            [/]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-104X   BASELINE [   ]
NASA FMEA #:   2346-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 104
ITEM: LOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                     ADEQUATE   [   ]
                                     INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-105X
NASA FMEA #: 2346-3

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 105
ITEM: LOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA NO 05-6J-2346-3 REV 11/4/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-106X
NASA FMEA #: 2347-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 106
ITEM: UNLOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-107X   NASA DATA:
NASA FMEA #:   2347-2   BASELINE [   ]
                                                   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 107
ITEM: UNLOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-108X   BASELINE [   ]
NASA FMEA #:   2347-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 108
ITEM: UNLOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2347-3 REV 11/19/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-109X   BASELINE [   ]
NASA FMEA #:   2348-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 109
ITEM: LOCK RPC CROSSOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

       [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-110X   BASELINE [   ]
NASA FMEA #:   2348-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 110
ITEM: LOCK RPC CROSSOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-111X
NASA FMEA #:   2348-3

NASA DATA:
  BASELINE [   ]
      NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 111
ITEM: LOCK RPC CROSSOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                ADEQUATE   [   ]
                              INADEQUATE   [   ]
REMARKS:
NASA FMEA NO 05-6J-2348-3 REV 11/04/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-112X   BASELINE [   ]
NASA FMEA #:   2349-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 112
ITEM: UNLOCK RPC CROSSOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
          CRITICALITY    REDUNDANCY SCREENS        CIL
            FLIGHT                                 ITEM
           HDW/FUNC      A        B        C

   NASA  [ 3 /1R ]     [ P ]    [ F ]    [ P ]    [ X ] *
    IOA  [ 3 /1R ]     [ P ]    [ F ]    [ P ]    [ X ]

COMPARE  [  /  ]       [   ]    [   ]    [   ]    [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
          [  /  ]      [   ]    [   ]    [   ]       [   ]
                                                  (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-113X   BASELINE [   ]
NASA FMEA #:   2349-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 113
ITEM: UNLOCK RPC CROSSOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

             [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-114X
NASA FMEA #:   2349-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 114
ITEM: UNLOCK RPC CROSSOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-115X
NASA FMEA #:   2350-1

NASA DATA:
BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 115
ITEM: TRANSIENT SUPPRESSION DIODES (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: MPS-115X

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-116X
NASA FMEA #: 2351-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 116
ITEM: UNLOCK POSITION SWITCH MONITOR RESISTORS (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [ ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. THE
FAILURE CAUSES A LOSS OF MONITORING CAPABILITY.

ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-117X
NASA FMEA #:   2352-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 117
ITEM: LOCK POSITION SWITCH MONITOR RESISTORS (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-118X
NASA FMEA #:   2353-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 118
ITEM: RPC AND SOLENOID POWER MONITOR RESISTORS (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-119X   BASELINE [   ]
NASA FMEA #:   2376-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 119
ITEM: LOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-120X   BASELINE [   ]
NASA FMEA #:   2376-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 120
ITEM: LOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY   REDUNDANCY SCREENS        CIL
               FLIGHT                                ITEM
              HDW/FUNC     A        B        C

      NASA  [ 3 /1R ]   [ P ]    [ F ]    [ P ]    [ X ] *
       IOA  [ 3 /1R ]   [ P ]    [ F ]    [ P ]    [ X ]

COMPARE   [   /   ]     [   ]    [   ]    [   ]    [   ]
```

RECOMMENDATIONS: (If different from NASA)

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          [   /   ]     [   ]    [   ]    [   ]       [   ]
                                                   (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-121X   BASELINE [   ]
NASA FMEA #:   2376-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 121
ITEM: LOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [/]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2376-3 REV 11/04/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-122X   BASELINE [   ]
NASA FMEA #:   2377-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 122
ITEM: UNLOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-123X   BASELINE [   ]
NASA FMEA #:   2377-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 123
ITEM: UNLOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-124X   BASELINE [   ]
NASA FMEA #:   2377-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 124
ITEM: UNLOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                  ADEQUATE   [   ]
                                INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88   NASA DATA:
ASSESSMENT ID: MPS-125X   BASELINE [   ]
NASA FMEA #:   2378-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 125
ITEM: BLEED RESISTORS (4)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-128X   BASELINE [   ]
NASA FMEA #:   2198-4   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 128
ITEM: LH2 PREVALVE TOGGLE SWITCHES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-129X   BASELINE [   ]
NASA FMEA #:   2198-5   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 129
ITEM: LH2 PREVALVE TOGGLE SWITCHES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-130X   BASELINE [   ]
NASA FMEA #:   2205-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 130
ITEM: LH2 PREVALVES OPEN COMMAND B RPC OUTPUT DIODES,
12A (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

            [/]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-131X   BASELINE [   ]
NASA FMEA #:   2205-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 131
ITEM: LH2 PREVALVES OPEN COMMAND B RPC OUTPUT DIODES,
12A (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-132X
NASA FMEA #:   2206-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 132
ITEM: LH2 PREVALVE OPEN RPC CROSSOVER DIODES, 12A (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-133X   BASELINE [   ]
NASA FMEA #:   2206-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 133
ITEM: LH2 PREVALVE OPEN RPC CROSSOVER DIODES, 12A (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

              [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-134X   BASELINE [   ]
NASA FMEA #:   2207-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 134
ITEM: LH2 PREVALVE CLOSE COMMAND A RPC OUTPUT DIODES,
12A (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [ ]   [ ]   [ ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-135X
NASA FMEA #:   2207-3

NASA DATA:
  BASELINE [   ]
      NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 135
ITEM: LH2 PREVALVE CLOSE COMMAND A RPC OUTPUT DIODES,
12A (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-136X   BASELINE [   ]
NASA FMEA #:   2208-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 136
ITEM: LH2 PREVALVES CLOSE RPC CROSSOVER DIODES, 12A
(3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

            [/]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-137X   BASELINE [   ]
NASA FMEA #:   2208-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 137
ITEM: LH2 PREVALVE CLOSE RPC CROSSOVER DIODE, 12A (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY      REDUNDANCY SCREENS          CIL
               FLIGHT                                    ITEM
             HDW/FUNC       A        B        C

      NASA  [ 2 /1R ]    [ P ]    [ P ]    [ P ]      [ X ] *
      IOA   [ 2 /1R ]    [ P ]    [ P ]    [ P ]      [ X ]

COMPARE     [   /   ]    [   ]    [   ]    [   ]      [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
            [   /   ]    [   ]    [   ]    [   ]        [   ]
                                                     (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-138X   BASELINE [   ]
NASA FMEA #:   2209-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 138
ITEM: LH2 PREVALVES OPEN MDM BLOCKING DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:

REPORT DATE 03/11/88   C-137

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-139X
NASA FMEA #: 2210-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 139
ITEM: LH2 PREVALVES CLOSE MDM BLOCKING DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-140X   BASELINE [   ]
NASA FMEA #:   2211-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 140
ITEM: LH2 PREVALVES OPEN MDM BLOCKING DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-141X
NASA FMEA #:   2212-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 141
ITEM: LH2 PREVALVE CLOSE MDM BLOCKING DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]	[ ]	[ ]	[ ]	[ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-142X   BASELINE [   ]
NASA FMEA #:   2213-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 142
ITEM: LH2 PREVALVES MAINSTAGE BLOCKING DIODES (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-143X   BASELINE [   ]
NASA FMEA #:   2214-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 143
ITEM: LH2 PREVALVES BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [3 /1R]   [P]   [F]   [P]   [A]
                                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                                  ADEQUATE   [   ]
                                                  INADEQUATE [   ]
REMARKS:
THE FAILURE IS NOT DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-144X   BASELINE [   ]
NASA FMEA #:   2215-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 144
ITEM: LH2 PREVALVE CLOSE SWITCH COMMAND A BLOCKING
DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
THE FAILURE IS NOT DETECTABLE

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-145X   BASELINE [   ]
NASA FMEA #:   2216-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 145
ITEM: LH2 PREVALVES OPEN SWITCH COMMAND C BLOCKING
DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [P]   [A]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-146X
NASA FMEA #:   2217-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 146
ITEM: LH2 PREVALVES OPEN SWITCH COMMAND B BLOCKING
DIODES (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
                                             (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
THE FAILURE IS NOT DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-147X   BASELINE [   ]
NASA FMEA #:   2218-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 147
ITEM: LH2 PREVALVES CLOSE SWITCH B&C BLOCKING DIODES
(6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [3 /1R]   [P]   [F]   [P]   [A]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]
REMARKS:
THE FAILURE IS NOT DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-148X   BASELINE [   ]
NASA FMEA #:   2219-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 148
ITEM: LH2 PREVALVES OPEN SWITCH BLOCKING DIODES (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [3 /1R]   [P]   [F]   [P]   [A]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
THE FAILURE IS NOT DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-149X   BASELINE [   ]
NASA FMEA #:   2220-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 149
ITEM: LH2 PREVALVES OPEN SWITCH SCAN DIODES (9)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-150X   BASELINE [   ]
NASA FMEA #:   2221-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 150
ITEM: LH2 PREVALVES CLOSE SWITCH SCAN DIODES (9)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [   ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                 INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-151X
NASA FMEA #:   2392-2

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 151
ITEM: LH2 PREVALVES OPEN COMMAND A RPC OUTPUT DIODES
(3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [ ]   [ ]   [ ]   [ ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-152X
NASA FMEA #:   2392-3

NASA DATA:
  BASELINE [   ]
    NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 152
ITEM: LH2 PREVALVES OPEN COMMAND A RPC OUTPUT DIODES
(3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                            INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-153X   BASELINE [   ]
NASA FMEA #:   2393-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 153
ITEM: LH2 PREVALVES CLOSE COMMAND B RPC OUTPUT DIODES
(3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

           CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
           HDW/FUNC   A   B   C

    NASA   [3 /1R]   [P]   [F]   [P]   [X] *
     IOA   [3 /1R]   [P]   [F]   [P]   [X]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

           [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]
REMARKS:

C-3

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-154X
NASA FMEA #: 2393-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 154
ITEM: LH2 PREVALVES CLOSE COMMAND B RPC OUTPUT DIODES
(3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88
ASSESSMENT ID: MPS-201X
NASA FMEA #:   0518-3

NASA DATA:
  BASELINE [   ]
    NEW [X]

SUBSYSTEM: MPS
MDAC ID: 201
ITEM: LO2 TANK PRE-PRESS CHECK VALVE (CV16)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                                ADEQUATE   [   ]
                            INADEQUATE [   ]

REMARKS:
EXTERNAL LEAKAGE OF GO2 FROM THIS CHECK VALVE WOULD CAUSE
OVERPRESSURIZATION OF THE AFT COMPARTMENT AND BUCKLING OF THE LO2
TANK DUE TO ATMOSPHERIC FORCES ACTING ON AN UNPRESSURIZED TANK.
NASA INFORMATION IS BASED ON THE RI/NASA CRITICAL ITEMS LIST OF
12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-202X   BASELINE [   ]
NASA FMEA #:   0451-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 202
ITEM: LO2 BLEED CHECK VALVE (CV31, 33, 35)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
RI/NASA ANALYSIS APPLIES TO REENTRY PURGE. FAILURE MAY ALLOW
CONTAMINATION TO ENTER THE SYSTEM.
NASA INFORMATION IS BASED ON NASA FMEA/CIL REVIEW MEETING NOTES
(REF. J.E. BORCHES).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-203X   BASELINE [   ]
NASA FMEA #:   0451-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 203
ITEM: LO2 BLEED CHECK VALVE (CV31,33,35)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
NASA INFORMATION IS BASED ON THE RI/NASA CRITICAL ITEMS LIST OF
12-23-87 AND THE RI/NASA CIL WORKSHEET DATED 9-16-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-204X   BASELINE [ ]
NASA FMEA #:   0519-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 204
ITEM: GO2 PRESSURE FLOW CONTROL VALVE (LV53,54,55)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

     [/   ]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                 ADEQUATE [   ]
                               INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-205X
NASA FMEA #: 0408-5

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 205
ITEM: LO2 FEED (ORB/ET) DISCONNECT (PD1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-206X   BASELINE [   ]
NASA FMEA #:   0408-9   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 206
ITEM: LO2 FEED (ORB/ET) DISCONNECT (PD1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-207X
NASA FMEA #:   0408-10

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 207
ITEM: LO2 FEED (ORB/ET) DISCONNECT (PD1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE   [   ]

REMARKS:
FAILURE TO CLOSE IS ADDRESSED ON 0408-6. FAILURE OF THE
INDICATOR WILL HAVE NO EFFECT.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-208X   BASELINE [   ]
NASA FMEA #:   0408-12   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 208
ITEM: LO2 FEED DISCONNECT (PD1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-209X   BASELINE [   ]
NASA FMEA #:   0803-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 209
ITEM: LO2 FEED DISCONNECT (PD1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/1R]	[ ]	[ ]	[ ]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/]   [ ]   [ ]   [ ]   [D]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
THIS FAILURE MODE SHOULD BE CONSIDERED UNDER 0408-5, LOSS OF
POSITION INDICATION, OR 0408-10, ERRONEOUS INDICATION.
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-210X   BASELINE [   ]
NASA FMEA #:   0454-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 210
ITEM: LO2 AND LH2 FEED DISCONNECT LATCH ASSEMBLY (ORB
ONLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-211X
NASA FMEA #: 0454-3

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 211
ITEM: LO2 AND LH2 FEED DISCONNECT LATCH ASSEMBLY (ORB ONLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-212X
NASA FMEA #:   0454-4

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 212
ITEM: LO2 AND LH2 FEED DISCONNECT LATCH ASSEMBLY (ORB ONLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-213X   BASELINE [   ]
NASA FMEA #:   0454-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 213
ITEM: LO2 AND LH2 FEED DISCONNECT LATCH ASSEMBLY (ORB
ONLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-214X
NASA FMEA #:   0454-6

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 214
ITEM: LO2 AND LH2 FEED DISCONNECT LATCH ASSEMBLY (ORB ONLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
FAILURE TO UNLOCK IS ADDRESSED ON 0454-3. FAILURE OF THE
INDICATOR HAS NO EFFECT.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF
12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-215X
NASA FMEA #:   0454-7

NASA DATA:
BASELINE [   ]
    NEW [X]

SUBSYSTEM: MPS
MDAC ID: 215
ITEM: LO2 AND LH2 FEED DISCONNECT LATCH ASSEMBLY (ORB
ONLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-216X   BASELINE [   ]
NASA FMEA #:   0454-8   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 216
ITEM: LO2 AND LH2 FEED DISCONNECT LATCH ASSEMBLY (ORB
ONLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[NA]	[P]	[X] *
IOA	[2 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88   NASA DATA:
ASSESSMENT ID: MPS-217X   BASELINE [   ]
NASA FMEA #:   0805-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 217
ITEM: LO2 AND LH2 FEED DISCONNECT LATCH ASSEMBLY (ORB ONLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/1R]	[ ]	[ ]	[ ]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [D]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
THIS FAILURE SHOULD BE COVERED UNDER 0454-5, LOSS OF POSITION
INDICATION, OR 0454-6, ERRONEOUS INDICATION. REF: RI/NASA CIL
OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/22/88

NASA DATA:

ASSESSMENT ID: MPS-218X

BASELINE [ ]

NASA FMEA #: 0303-2

NEW [X]

SUBSYSTEM: MPS
MDAC ID: 218
ITEM: LO2 FILL AND DRAIN DISCONNECT (PD12)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/22/88
ASSESSMENT ID: MPS-219X
NASA FMEA #:   0303-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 219
ITEM: LO2 FILL AND DRAIN DISCONNECT (PD12)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES (J.E. BORCHES).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/22/88
ASSESSMENT ID: MPS-220X
NASA FMEA #:   0303-4

NASA DATA:
BASELINE [   ]
NEW   [X]

SUBSYSTEM: MPS
MDAC ID: 220
ITEM: LO2 FILL AND DRAIN DISCONNECT (PD12)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES (J.E. BORCHES).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/22/88
ASSESSMENT ID: MPS-221X   NASA DATA:
NASA FMEA #: 0303-5   BASELINE [   ]
                                                  NEW [X]

SUBSYSTEM: MPS
MDAC ID: 221
ITEM: LO2 FILL AND DRAIN DISCONNECT (PD12)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                           INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES (J.E. BORCHES).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-222X   BASELINE [   ]
NASA FMEA #:   0401-6   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 222
ITEM: LO2 PREVALVE (PV1, 2, 3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES (J.E. BORCHES).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-223X   BASELINE [   ]
NASA FMEA #:   0401-10   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 223
ITEM: LO2 PREVALVE (PV1, 2, 3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
            CRITICALITY       REDUNDANCY SCREENS           CIL
               FLIGHT                                      ITEM
             HDW/FUNC        A         B         C

    NASA   [ 1 /1  ]      [ NA]     [ NA]     [ NA]      [ X ] *
     IOA   [ 1 /1  ]      [ NA]     [ NA]     [ NA]      [   ]

COMPARE    [   /   ]      [   ]     [   ]     [   ]      [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]    [   ]   [   ]   [   ]            [   ]
                                                     (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-224X   BASELINE [   ]
NASA FMEA #:   0801-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 224
ITEM: LO2 PREVALVE (PV1, 2, 3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/1R]	[ ]	[ ]	[ ]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [D]
                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:
THIS FAILURE MODE SHOULD BE ADEQUATLEY ADDRESSED UNDER ERRONEOUS
INDICATION (0401-6).
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-225X
NASA FMEA #:   0414-4

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 225
ITEM: LO2 FEEDLINE RELIEF SHUTOFF VALVE (PV7)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]	[NA]	[NA]	[NA]	[D]
				(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
FAILURE OF THE VALVE TO REMAIN CLOSED IS ADDRESSED ON 0414-3.
FAILURE OF THE INDICATION SYSTEM ONLY WILL HAVE NO EFFECT.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-226X
NASA FMEA #:   0414-5

NASA DATA:
  BASELINE [   ]
  NEW [X]

SUBSYSTEM: MPS
MDAC ID: 226
ITEM: LO2 FEEDLINE RELIEF SHUTOFF VALVE (PV7)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                  ADEQUATE   [   ]
                                  INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-227X   BASELINE [   ]
NASA FMEA #:   0414-6   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 227
ITEM: LO2 FEEDLINE RELIEF SHUTOFF VALVE (PV7)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-228X   BASELINE [   ]
NASA FMEA #:   0311-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 228
ITEM: LO2 OUTBOARD FILL AND DRAIN VALVE (PV9)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [D]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
FAILURE OF THE VALVE TO REMAIN CLOSED IS ADDRESSED ON 0311-4.
FAILURE OF THE POSITION INDICATOR ALONE WILL HAVE NO EFFECT.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-10-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-229X
NASA FMEA #: 0311-7

NASA DATA:
  BASELINE [   ]
  NEW [X]

SUBSYSTEM: MPS
MDAC ID: 229
ITEM: LO2 OUTBOARD FILL AND DRAIN VALVE (PV9)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                               ADEQUATE [ ]
                             INADEQUATE [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-10-87.

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-230X
NASA FMEA #:   0311-8

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: MPS
MDAC ID: 230
ITEM: LO2 OUTBOARD FILL AND DRAIN VALVE (PV9)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                               ADEQUATE   [   ]
                             INADEQUATE   [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-231X
NASA FMEA #: 0311-10

NASA DATA:
  BASELINE [   ]
     NEW [X]

SUBSYSTEM: MPS
MDAC ID: 231
ITEM: LO2 OUTBOARD FILL AND DRAIN VALVE (PV9)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

       [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-10-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-232X   BASELINE [   ]
NASA FMEA #:   0310-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 232
ITEM: LO2 INBOARD FILL AND DRAIN VALVE (PV10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
FAILURE OF THE VALVE TO REMAIN CLOSED IS ADDRESSED ON 0310-4.
FAILURE OF THE POSITION INDICATOR ALONE WILL HAVE NO EFFECT.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-9-
87.

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-233X   BASELINE [   ]
NASA FMEA #:   0310-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 233
ITEM: LO2 INBOARD FILL AND DRAIN VALVE (PV10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

             [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-9-87.

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-234X   BASELINE [   ]
NASA FMEA #:   0310-8   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 234
ITEM: LO2 INBOARD FILL AND DRAIN VALVE (PV10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-9-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-235X   BASELINE [   ]
NASA FMEA #:   0310-9   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 235
ITEM: LO2 INBOARD FILL AND DRAIN VALVE (PV10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                                ADEQUATE   [   ]
                                              INADEQUATE   [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-236X
NASA FMEA #:   0310-11

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 236
ITEM: LO2 INBOARD FILL AND DRAIN VALVE (PV10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-9-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-237X
NASA FMEA #: 0806-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 237
ITEM: LO2 INBOARD FILL AND DRAIN VALVE (PV10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/1R]	[ ]	[ ]	[ ]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [D]
                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MODE SHOULD BE ADEQUATELY ADDRESSED UNDER ERRONEOUS
INDICATION (0310-3) AND LOSS OF POSITION INDICATION (0310-9).
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-238X   BASELINE [   ]
NASA FMEA #:   0452-6   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 238
ITEM: LO2 BLEED SHUTOFF VALVE (PV19)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88   NASA DATA:
ASSESSMENT ID: MPS-239X   BASELINE [   ]
NASA FMEA #:   0452-8   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 239
ITEM: LO2 BLEED SHUTOFF VALVE (PV19)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-13-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-240X   BASELINE [   ]
NASA FMEA #:   0453-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 240
ITEM: LO2 POGO ACCUMULATOR RECIRC VALVE (PV20, 21)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [D]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
FAILURE TO REMAIN OPEN IS ADDRESSED ON 0453-1. FAILURE OF THE
INDICATOR ALONE WILL HAVE NO EFFECT.
REF: RI/NASA OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 10-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/25/88
ASSESSMENT ID: MPS-241X
NASA FMEA #:   0453-5

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 241
ITEM: LO2 POGO ACCUMULATOR RECIRC VALVE (PV20, 21)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-243X
NASA FMEA #: 0427-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 243
ITEM: LH2/LO2 PROPELLANT LEVEL SENSORS

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ASSESSMENT ALSO COVERS LH2 SENSORS. MULTIPLE SENSORS
PROVIDE REDUNDANCY TO PREVENT UNDERFILL.
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-244X
NASA FMEA #:   0427-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 244
ITEM: LH2/LO2 PROPELLANT LEVEL SENSORS

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[F]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
THIS ASSESSMENT ALSO COVERS LH2 SENSORS. MULTIPLE SENSORS
PROVIDE REDUNDANCY TO PREVENT OVERFILL.
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-247X   BASELINE [   ]
NASA FMEA #:   0410-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 247
ITEM: LH2 DELTA-P TRANSDUCER (MT44)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-248X   BASELINE [   ]
NASA FMEA #:   0420-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 248
ITEM: LO2 12 INCH FEEDLINE (FH 3, 4, 5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-249X
NASA FMEA #:   0460-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 249
ITEM: LO2 12 INCH FEEDLINE (FH 3, 4, 5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
THIS ANALYSIS IS FOR THE FOAM INSULATED LINE. REF: RI/NASA
FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-250X
NASA FMEA #:   0609-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 250
ITEM: GO2 PRESSURE MANIFOLD REPRESS ORIFICE (RP1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-251X   BASELINE [   ]
NASA FMEA #:   0422-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 251
ITEM: LO2 BLEED LINE, 1.5" DIA

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

    [/   ]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-252X   BASELINE [   ]
NASA FMEA #:   0424-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 252
ITEM: LO2 RELIEF LINE (PV7 TO RV5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-24-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-253X   BASELINE [   ]
NASA FMEA #:   0455-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 253
ITEM: LO2 RELIEF LINE, 1" DIA (RV5 TO EXIT)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-254X   BASELINE [   ]
NASA FMEA #:   0456-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 254
ITEM: LO2 RELIEF SENSE LINE, .38" DIA

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

     [/]   [ ]   [ ]   [ ]   [ ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [ ]
                            INADEQUATE [ ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-24-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-255X   BASELINE [   ]
NASA FMEA #:   0456-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 255
ITEM: LO2 RELIEF SENSE LINE, .38" DIA

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [P]   [A]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                       ADEQUATE   [   ]
                                     INADEQUATE   [   ]
REMARKS:
FAILURE MAY PREVENT RELIEF VALVE FROM OPENING. REDUNDANCY EXISTS
TO RELIEVE MANIFOLD PRESSURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-256X   BASELINE [   ]
NASA FMEA #:   0428-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 256
ITEM: LO2 BLEED RECIRC & POGO SUPPRESSION LINE, 1,
1.5, 2" DIA

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 10-6-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-257X   BASELINE [   ]
NASA FMEA #:   0428-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 257
ITEM: LO2 BLEED RECIRC & POGO SUPPRESSION LINE, 1,
1.5, 2" DIA

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [D]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
FAILURE MODE IS ADDRESSED ON 0428-1.   THIS FMEA/CIL SHOULD BE
DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-258X
NASA FMEA #:   0433-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 258
ITEM: LO2 DELTA PRESSURE LINE, .25" DIA

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-259X
NASA FMEA #: 0434-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 259
ITEM: LO2 FEEDLINE SCREEN

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-11-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-260X
NASA FMEA #:   0434-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 260
ITEM: LO2 FEEDLINE SCREEN

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-11-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-261X   BASELINE [   ]
NASA FMEA #:   0458-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 261
ITEM: LO2 LINE ASSEMBLY (PD1 TO CV12 & RP1 TO CV10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-262X   BASELINE [   ]
NASA FMEA #:   0507-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 262
ITEM: GO2 PRESSURIZATION SUPPLY LINE, .63" DIA, CV TO
FCV

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                             (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-263X   BASELINE [   ]
NASA FMEA #:   0509-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 263
ITEM: GO2 PRESSURIZATION SUPPLY LINE (LV53, 54, 55 TO PD4)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-264X   BASELINE [ ]
NASA FMEA #:   0510-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 264
ITEM: GO2 PRESSURIZATION SUPPLY LINE (CV16 TO PD9)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [2 /1R]   [P]   [F]   [P]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
SECOND FAILURE WILL ALLOW LEAKAGE OF GO2 INTO AFT COMPARTMENT.
REF: RI/NASA CIL OF 12-23-87.

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-265X
NASA FMEA #:   0515-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 265
ITEM: LO2 ULLAGE PRESSURE SIGNAL CONDITIONER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                               ADEQUATE   [   ]
                               INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-266X
NASA FMEA #: 0515-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 266
ITEM: LO2 ULLAGE PRESSURE SIGNAL CONDITIONER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]	[NA]	[NA]	[NA]	[D] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THE RI/NASA ANALYSIS INDICATES THAT THE 2/1R CRITICALITY APPLIES
TO THE LH2 ULLAGE PRESSURE SIGNAL CONDITIONER ONLY. FOR LO2
THERE WOULD BE NO EFFECT. REF: RI/NASA CIL OF 12-23-87 AND
RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-267X   BASELINE [   ]
NASA FMEA #:   0515-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 267
ITEM: LO2 ULLAGE PRESSURE SIGNAL CONDITIONER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-268X   BASELINE [   ]
NASA FMEA #:   0522-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 268
ITEM: GO2 PRESSURIZATION SUPPLY LINE

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-269X
NASA FMEA #:   0607-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 269
ITEM: LO2 SENSE LINE (PD1 TO PR5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-270X
NASA FMEA #: 0626-5

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 270
ITEM: LO2 ENGINE INLET PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-271X
NASA FMEA #: 0626-6

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 271
ITEM: LO2 MANIFOLD PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
RELIEF SYSTEM WILL PROTECT AGAINST MANIFOLD RUPTURE. NO
REDUNDANCY FOR TRANSDUCER FAILURE.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-272X
NASA FMEA #:   0626-7

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 272
ITEM: GO2 DISCONNECT PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE   [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-273X   BASELINE [   ]
NASA FMEA #:   0627-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 273
ITEM: LO2 ENGINE INLET TEMPERATURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ] [   ] [   ]   [   ]
                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                               ADEQUATE   [   ]
                             INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-274X   BASELINE [   ]
NASA FMEA #:   0627-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 274
ITEM: GO2 ENGINE OUTLET TEMPERATURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [P]   [   ]
                                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
RI/NASA FMEA/CIL REVIEW MEETING NOTES POSTULATE LEAKAGE OF THE
ANTI-FLOOD VALVE IN COMBINATION WITH TRANSDUCER FAILURE. THIS
VIOLATES NSTS 22206 2.3.2d, THE REQUIREMENT THAT INTERFACING
SUBSYSTEMS WILL BE CONSIDERED TO BE OPERATING WITHIN THEIR
SPECIFIED TOLERANCES. MULTIPLE FAILURES CAN ALLOW ENGINE START
WHEN CONDITIONS ARE NOT ACTUALLY WITHIN LIMITS. REF: RI/NASA
CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-275X   BASELINE [   ]
NASA FMEA #:   0627-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 275
ITEM: LO2 FEED MANIFOLD DISCONNECT TEMPERATURE
TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
RI/NASA ANALYSIS INDICATES 3/1R FOR A PAD ABORT (PRELAUNCH).
THIS ASSUMED FAILURE OF THE ENGINE BLEED VALVE, WHICH VIOLATES
NSTS 22206 2.3.2d, THE REQUIREMENT THAT INTERFACING SUBSYSTEMS
WILL BE CONSIDERED TO BE OPERATING WITHIN THEIR SPECIFIED
TOLERANCES. REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL
REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-276X   BASELINE [   ]
NASA FMEA #:   0701-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 276
ITEM: LO2/LH2 NAFLEX FLANGE FACE SEALS

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-277X
NASA FMEA #:   0702-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 277
ITEM: LO2/LH2 METALLIC BOSS SEALS (K SEALS)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-278X   BASELINE [   ]
NASA FMEA #:   0703-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 278
ITEM: GO2/GH2 K SEALS

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL FMEA/CIL REVIEW
MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-279X   BASELINE [   ]
NASA FMEA #:   0707-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 279
ITEM: GO2/GH2 NAFLEX FLANGE FACE SEALS

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-280X
NASA FMEA #:   0301-8

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: MPS
MDAC ID: 280
ITEM: LH2 INBOARD FILL AND DRAIN VALVE (PV12)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                              ADEQUATE   [   ]
                            INADEQUATE   [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-281X   BASELINE [   ]
NASA FMEA #:   0301-9   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 281
ITEM: LH2 INBOARD FILL AND DRAIN VALVE (PV12)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[F]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-282X   BASELINE [   ]
NASA FMEA #:   0301-11   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 282
ITEM: LH2 INBOARD FILL AND DRAIN VALVE

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
RI/NASA ANALYSIS IDENTIFIES A 1/1 CRITICALITY FOR RTLS AND TAL
ABORTS. IOA CONCURS.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-23-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-283X   BASELINE [   ]
NASA FMEA #:   0808-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 283
ITEM: LH2 INBOARD FILL AND DRAIN VALVE (PV12)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/1R]	[NA]	[NA]	[NA]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [D]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
THIS FAILURE MODE SHOULD BE ADEQUATELY ADDRESSED UNDER ERRONEOUS
INDICATION (0301-3) AND LOSS OF POSITION INDICATION (0301-8).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88
ASSESSMENT ID: MPS-284X
NASA FMEA #:   0302-7

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 284
ITEM: LH2 OUTBOARD FILL AND DRAIN VALVE (PV11)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/27/88   NASA DATA:
ASSESSMENT ID: MPS-285X   BASELINE [   ]
NASA FMEA #:   0302-8   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 285
ITEM: LH2 OUTBOARD FILL AND DRAIN VALVE (PV11)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
              CRITICALITY    REDUNDANCY SCREENS        CIL
                FLIGHT                                 ITEM
               HDW/FUNC      A        B        C

      NASA   [ 2 /1R ]     [ P ]    [ F ]    [ F ]    [ X ] *
      IOA    [ 2 /1R ]     [ P ]    [ F ]    [ F ]    [   ]

COMPARE    [   /   ]     [   ]    [   ]    [   ]    [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]   [   ]   [   ]   [   ]        [   ]
                                                 (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                     ADEQUATE   [   ]
                                     INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-24-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-286X   BASELINE [   ]
NASA FMEA #:   0302-10   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 286
ITEM: LH2 OUTBOARD FILL & DRAIN VALVE (PV11)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-24-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-287X
NASA FMEA #: 0807-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 287
ITEM: LH2 OUTBOARD FILL & DRAIN VALVE (PV11)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[/1R]	[ ]	[ ]	[ ]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [D]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE   [   ]
INADEQUATE   [   ]

REMARKS:
THIS FAILURE MODE SHOULD BE ADEQUATELY ADDRESSED UNDER ERRONEOUS
INDICATION (0302-3) AND LOSS OF POSITION INDICATION (0302-7).
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-288X   BASELINE [   ]
NASA FMEA #:   0303-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 288
ITEM: LH2 FILL & DRAIN DISCONNECT (PD11)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-87.

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-289X   BASELINE [   ]
NASA FMEA #:   0303-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 289
ITEM: LH2 FILL & DRAIN DISCONNECT (PD11)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-290X   BASELINE [   ]
NASA FMEA #:   0303-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 290
ITEM: LH2 FILL & DRAIN DISCONNECT (PD11)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-291X   BASELINE [   ]
NASA FMEA #:   0303-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 291
ITEM: LH2 FILL & DRAIN DISCONNECT (PD11)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

               CRITICALITY   REDUNDANCY SCREENS   CIL
                  FLIGHT   ITEM
                HDW/FUNC   A   B   C

        NASA [3 /3]   [NA]   [NA]   [NA]   [   ] *
         IOA [3 /3]   [NA]   [NA]   [NA]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-292X
NASA FMEA #: 0432-4

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 292
ITEM: LH2 HI POINT BLEED DISCONNECT (PD17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-13-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-293X   BASELINE [   ]
NASA FMEA #:   0432-6   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 293
ITEM: LH2 HI POINT BLEED DISCONNECT (PD17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-13-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-294X   BASELINE [   ]
NASA FMEA #:   0304-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 294
ITEM: LH2 REPLENISH VALVE (PV13)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-295X   BASELINE [   ]
NASA FMEA #:   0304-6   NEW   [X]

SUBSYSTEM: MPS
MDAC ID: 295
ITEM: LH2 REPLENISH VALVE (PV13)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

            CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
            HDW/FUNC   A   B   C

    NASA [3 /3]   [NA]   [NA]   [NA]   [   ] *
    IOA   [3 /3]   [NA]   [NA]   [NA]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-296X   BASELINE [   ]
NASA FMEA #:   0304-11   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 296
ITEM: LH2 REPLENISH VALVE (PV13)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

       [2 /1R]   [P]   [P]   [P]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                           INADEQUATE [   ]
REMARKS:
HELIUM TANK PRESSURE INDICATOR AND ALARMS SUPPORT PASSAGE OF
SCREEN B.   REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-297X
NASA FMEA #:   0431-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 297
ITEM: LH2 HI POINT BLEED VALVE (PV22)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-298X
NASA FMEA #:   0431-6

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 298
ITEM: LH2 HI POINT BLEED VALVE (PV22)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                              ADEQUATE   [   ]
                              INADEQUATE [   ]
REMARKS:
THIS ANALYSIS IS A DUPLICATE OF 0431-5. THIS CIL SHOULD BE
DELETED. REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-299X   BASELINE [   ]
NASA FMEA #:   0431-7   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 299
ITEM: LH2 HI POINT BLEED VALVE

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

C - 4

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-300X   BASELINE [   ]
NASA FMEA #:   0431-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 300
ITEM: LH2 HI POINT BLEED VALVE (PV22)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-12-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-301X   BASELINE [   ]
NASA FMEA #:   0410-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 301
ITEM: LH2 SYSTEM DELTA-P TRANSDUCER (MT44)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-303X
NASA FMEA #:   0433-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 303
ITEM: LH2 DELTA-P LINE, .25" DIA

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-304X   BASELINE [   ]
NASA FMEA #:   NA   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 304
ITEM: LH2 HI POINT BLEED LINE (PV22 TO PD17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
AN INCREASE IN PRESSURE CAUSED BY THE LOSS OF INSULATION WILL BE
RELIEVED BY THE HI POINT BLEED VALVE RELIEF FEATURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-305X   BASELINE [   ]
NASA FMEA #:   NA   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 305
ITEM: LH2 HI POINT BLEED LINE (PV22 TO PD17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [1 /1]   [NA]   [NA]   [NA]   [A]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-306X
NASA FMEA #: 0457-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 306
ITEM: LH2 LINE ASSEMBLY (PD2 TO RV7, CV15)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 9-18-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-307X
NASA FMEA #: 0405-4

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 307
ITEM: LH2 RECIRCULATION DISCONNECT VLAVE (PD3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FAILURE OF THE VALVE TO REMAIN OPEN IS ADDRESSED ON 0405-2.
FAILURE OF THE INDICATOR ALONE WILL HAVE NO EFFECT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-308X   BASELINE [   ]
NASA FMEA #:   0405-7   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 308
ITEM: LH2 RECIRCULATION DISCONNECT VALVE (PD3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
THE RI/NASA CIL INDICATES A 1/1 CRITICALITY FOR ABORT. FAILURE
OF THE VALVE TO CLOSE IS COVERED ON 0405-6. FAILURE OF THE
INDICATOR WILL HAVE NO EFFECT. REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-309X
NASA FMEA #:   0405-8

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 309
ITEM: LH2 RECIRCULATION DISCONNECT VALVE (PD3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-310X   BASELINE [   ]
NASA FMEA #:   0405-9   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 310
ITEM: LH2 RECIRCULATION DISCONNECT VALVE (PD3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

      [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 11-11-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-311X   BASELINE [   ]
NASA FMEA #:   NA   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 311
ITEM: LH2 RECIRCULATION DISCONNECT VALVE (PD3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                               ADEQUATE   [   ]
                              INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-312X   BASELINE [   ]
NASA FMEA #:   0403-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 312
ITEM: LH2 RECIRCULATION PUMP VALVE (PV14, 15, 16)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-313X
NASA FMEA #:   0403-4

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 313
ITEM: LH2 RECIRCULATION PUMP VALVE (PV14, 15, 16)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [D]
INADEQUATE   [   ]

REMARKS:
FAILURE MODE IS NOT IDENTIFIED IN THE RI/NASA CIL OF 12-23-87.
THIS FMEA/CIL SHOULD BE DROPPED.
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-314X   BASELINE [   ]
NASA FMEA #:   0403-7   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 314
ITEM: LH2 RECIRCULATION PUMP VALVE (PV14, 15, 16)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-315X   BASELINE [   ]
NASA FMEA #:   0404-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 315
ITEM: LH2 RECIRCULATION PUMP (PP1, 2, 3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-316X   BASELINE [   ]
NASA FMEA #:   0505-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 316
ITEM: GH2 PRESSURIZATION ISOLATION CHECK VALVE (CV21,
22, 23)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[NA]	[F]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[ ]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                     ADEQUATE   [   ]
                                     INADEQUATE [   ]

REMARKS:
THE RI/NASA ANALYSIS ADDRESSES ABORT ONLY. FAILURE OF BOTH
SERIES REDUNDANT CHECK VALVES ON A SHUTDOWN ENGINE (ABORT) AS
WELL AS ANOTHER FAILURE (i.e., MFV FAILS TO CLOSE/REMAIN CLOSED)
WILL ALLOW ULLAGE PRESSURE TO BE LOST. ABORT CRITICALITY SHOULD
BE 3/1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: MPS-317X
NASA FMEA #:   0505-3

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: MPS
MDAC ID: 317
ITEM: GH2 PRESSURIZATION ISOLATION CHECK VALVE (CV21, 22, 23)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88   NASA DATA:
ASSESSMENT ID: MPS-318X   BASELINE [   ]
NASA FMEA #:   0504-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 318
ITEM: GH2 PRESSURIZATION FLOW CONTROL VALVE (LV56, 57,
58)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

              CRITICALITY   REDUNDANCY SCREENS   CIL
                FLIGHT   ITEM
               HDW/FUNC   A   B   C

      NASA   [2 /1R]   [F]   [P]   [P]   [X] *
      IOA   [2 /1R]   [F]   [P]   [F]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [N]   [N]

RECOMMENDATIONS: (If different from NASA)

           [2 /1R]   [F]   [P]   [F]   [   ]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-319X
NASA FMEA #:   0407-5

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 319
ITEM: LH2 FEED DISCONNECT VALVE (PD2)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-320X   BASELINE [   ]
NASA FMEA #:   0407-9   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 320
ITEM: LH2 FEED DISCONNECT VALVE (PD2)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-321X   BASELINE [   ]
NASA FMEA #:   0407-10   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 321
ITEM: LH2 FEED DISCONNECT VALVE (PD2)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

    [2 /1R]   [P]   [F]   [F]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
FAILURE OF THE VALVE TO CLOSE IS ADDRESSED ON 0407-6. FAILURE TO
CLOSE IS SECONDARY TO THE FAILURE OF THE POSITION INDICATOR.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-322X
NASA FMEA #: 0407-12

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 322
ITEM: LH2 FEED DISCONNECT VALVE (PD2)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-323X
NASA FMEA #: 0804-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 323
ITEM: LH2 FEED DISCONNECT VALVE (PD2)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/1R]	[ ]	[ ]	[ ]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [D]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MODE IS ADEQUATELY ADDRESSED UNDER LOSS OF POSITION
INDICATION (0407-5) AND ERRONEOUS INDICATION (0407-10).
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-324X   BASELINE [   ]
NASA FMEA #:   0402-7   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 324
ITEM: LH2 PREVALVE (PV4, 5, 6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [2 /1R]   [P]   [F]   [F]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
VALVE FAILURE TO OPEN IS ADDRESSED ON 0402-5. FAILURE OF THE
VALVE AND FAILURE OF THE INDICATOR ARE BOTH REQUIRED TO CAUSE A
LOSS OF CREW OR VEHICLE.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-325X   BASELINE [   ]
NASA FMEA #:   0402-11   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 325
ITEM: LH2 PREVALVE (PV4, 5, 6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-326X   BASELINE [   ]
NASA FMEA #:   0802-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 326
ITEM: LH2 PREVALVE (PV4, 5, 6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[/1R]	[ ]	[ ]	[ ]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/]   [ ]   [ ]   [ ]   [D]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
THIS FAILURE SHOULD BE ADQUATELY ADDRESSED UNDER LOSS OF POSITION
INDICATION (0402-6) AND ERRONEOUS INDICATION (0402-7). THIS
ANALYSIS SHOULD BE DELETED.
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88　　　　　　　　　　NASA DATA:
ASSESSMENT ID:　MPS-327X　　　　　　　　　　　BASELINE [　]
NASA FMEA #:　　0434-1　　　　　　　　　　　　　　　NEW [X]

SUBSYSTEM:　　　MPS
MDAC ID:　　　　327
ITEM:　　　　　　LH2 FEEDLINE SCREEN

LEAD ANALYST:　　W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS:　(If different from NASA)

　　　　　　　[/]　　[ ]　[ ]　[ ]　　　　[ ]
　　　　　　　　　　　　　　　　　　　　　　　　　(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
　　　　　　　　　　　　　　　　　　　ADEQUATE　[ ]
　　　　　　　　　　　　　　　　　　　INADEQUATE [ ]
REMARKS:
REF:　RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-11-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-328X   BASELINE [   ]
NASA FMEA #:   0434-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 328
ITEM: LH2 FEEDLINE SCREEN

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-11-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-329X   BASELINE [   ]
NASA FMEA #:   0437-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 329
ITEM: LH2 FEEDLINE RELIEF SHUTOFF VALVE (PV8)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [P]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]
REMARKS:
FAILURE OF THE VALVE TO REMAIN CLOSED IS ADDRESSED ON 0437-5.
FAILURE OF THE INDICATOR, THE VALVE AND THE RELIEF VALVE ARE ALL
REQUIRED BEFORE A LOSS OF CREW OR VEHICLE IS POSSIBLE.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 10-5-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-330X   BASELINE [   ]
NASA FMEA #:   0437-6   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 330
ITEM: LH2 FEEDLINE RELIEF SHUTOFF VALVE (PV8)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

      [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-331X
NASA FMEA #:   0437-7

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 331
ITEM: LH2 FEEDLINE RELIEF SHUTOFF VALVE (PV8)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE   [   ]
INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL OF 10-5-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-332X
NASA FMEA #: 0435-3

NASA DATA:
BASELINE [　]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 332
ITEM: LH2 FEEDLINE RELIEF FLAME ARRESTOR (FL1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]　　[ ]　[ ]　[ ]　　[ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [　]
INADEQUATE [　]

REMARKS:
THE RI/NASA ANALYSIS INDICATES A 1/1 CRITICALITY FOR ABORT.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-21-87.

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-333X
NASA FMEA #:   0435-4

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: MPS
MDAC ID: 333
ITEM: LH2 FEEDLINE RELIEF FLAME ARRESTOR (FL1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                                    ADEQUATE   [   ]
REMARKS: INADEQUATE   [   ]
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-23-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-334X   BASELINE [   ]
NASA FMEA #:   0651-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 334
ITEM: LH2 FEED RTLS INBOARD VALVE (PV17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [1 /1]   [NA]   [NA]   [NA]   [A]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
THE RI/NASA ANALYSIS INDICATES A 1/1 CRITICALITY FOR ABORT ONLY.
RUPTURE OF THE LINE CAN CAUSE LOSS OF VEHICLE DURING A NOMINAL
MISSION.
REF: RI/NASA OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-335X   BASELINE [   ]
NASA FMEA #:   0651-6   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 335
ITEM: LH2 FEED RTLS INBOARD VALVE (PV17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
THE RI/NASA ANALYSIS INDICATES A 1/1 CRITICALITY FOR ABORT ONLY.
IOA BELIEVES A 3/3 APPLIES.
REF: RI/NASA OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-336X
NASA FMEA #:   0651-7

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 336
ITEM: LH2 FEED RTLS INBOARD VALVE (PV17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[F]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
FAILURE OF THE VALVE TO CLOSE IS ADDRESSED ON 0651-4. FAILURE OF
THE INDICATOR ALONE WILL HAVE NO EFFECT OTHER THAN A POSSIBLE
LAUNCH SCRUB.
REF: RI/NASA OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-337X
NASA FMEA #:   0651-8

NASA DATA:
    BASELINE [   ]
    NEW [X]

SUBSYSTEM: MPS
MDAC ID: 337
ITEM: LH2 FEED RTLS INBOARD VALVE (PV17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-338X   BASELINE [   ]
NASA FMEA #:   0651-7   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 338
ITEM: LH2 FEED RTLS OUTBOARD VALVE (PV18)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[F]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

      [3 /3]   [NA]   [NA]   [NA]   [D]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
FAILURE OF THE VALVE TO CLOSE IS ADDRESSED ON 0651-4. FAILURE OF
THE INDICATOR ALONE WILL HAVE NO EFFECT OTHER THAN A POSSIBLE
LAUNCH SCRUB.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-339X   BASELINE [   ]
NASA FMEA #:   0651-8   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 339
ITEM: LH2 FEED RTLS OUTBOARD VALVE (PV18)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
            CRITICALITY      REDUNDANCY SCREENS            CIL
               FLIGHT                                      ITEM
            HDW/FUNC       A        B        C

     NASA  [ 3 /3 ]     [ NA]    [ NA]    [ NA]        [   ] *
      IOA  [ 3 /3 ]     [ NA]    [ NA]    [ NA]        [   ]

COMPARE    [   /   ]    [   ]    [   ]    [   ]        [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]    [   ]    [   ]    [   ]        [   ]
                                                    (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-340X   BASELINE [   ]
NASA FMEA #:   0423-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 340
ITEM: LH2 RELIEF LINE (FROM PV8 TO RV6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-341X   BASELINE [   ]
NASA FMEA #:   0461-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 341
ITEM: LH2 RELIEF LINE (RV6 TO FL1)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-342X   BASELINE [   ]
NASA FMEA #:   0462-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 342
ITEM: LH2 RELIEF SENSE LINE

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

       [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-343X   BASELINE [   ]
NASA FMEA #:   0462-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 343
ITEM: LH2 RELIEF SENSE LINE

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE [   ]
                                       INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 8-23-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-344X   BASELINE [   ]
NASA FMEA #:   0506-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 344
ITEM: GH2 PRESSURIZATION SUPPLY LINE (CV21 TO LV56,
CV22 TO LV57, CV23 TO LV58)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
          CRITICALITY     REDUNDANCY SCREENS          CIL
             FLIGHT                                    ITEM
           HDW/FUNC       A        B        C

   NASA  [ 1 /1 ]      [ NA]    [ NA]    [ NA]      [ X ]  *
    IOA  [ 1 /1 ]      [ NA]    [ NA]    [ NA]      [   ]

COMPARE  [   /   ]     [   ]    [   ]    [   ]      [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]    [   ]   [   ]   [   ]          [   ]
                                                   (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-345X   BASELINE [   ]
NASA FMEA #:   0508-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 345
ITEM: GH2 PRESSURIZATION SUPPLY LINE (LV56, 57, 58 TO PD5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                 ADEQUATE [   ]
                              INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-346X   BASELINE [   ]
NASA FMEA #:   0511-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 346
ITEM: GH2 PRESSURIZATION SUPPLY LINE (PD10 TO CV17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

           CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
            HDW/FUNC   A   B   C

     NASA [1 /1]   [NA]   [NA]   [NA]   [X] *
      IOA [1 /1]   [NA]   [NA]   [NA]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-347X   BASELINE [   ]
NASA FMEA #:   0520-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 347
ITEM: GH2 PRESSURIZATION SUPPLY LINE (MANIFOLD
ASSEMBLY)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-348X
NASA FMEA #:   0521-1

NASA DATA:
BASELINE [   ]
     NEW [X]

SUBSYSTEM: MPS
MDAC ID: 348
ITEM: GH2 PRESSURIZATION SUPPLY LINE (LV52 TO PD5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                  ADEQUATE   [   ]
                                  INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-349X
NASA FMEA #:   0607-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 349
ITEM: LH2 SENSE LINE (PD2 TO PR6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ] [   ] [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-350X   BASELINE [   ]
NASA FMEA #:   XXXXX   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 350
ITEM: LH2 RTLS DUMP LINE (PD2 TO PV17)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-351X   BASELINE [   ]
NASA FMEA #:   0652-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 351
ITEM: LH2 RTLS DUMP LINE (PV17 TO PV18)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

            [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-352X   BASELINE [   ]
NASA FMEA #:   0628-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 352
ITEM: LH2 RTLS DUMP LINE (PV18 TO OUTLET)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-353X   BASELINE [   ]
NASA FMEA #:   0515-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 353
ITEM: LH2 ULLAGE PRESSURE SIGNAL CONDITIONER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                       ADEQUATE   [   ]
                                       INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-354X   BASELINE [   ]
NASA FMEA #:   0515-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 354
ITEM: LH2 ULLAGE PRESSURE SIGNAL CONDITIONER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

            [/]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-355X
NASA FMEA #:   0515-3

NASA DATA:
    BASELINE [   ]
    NEW [X]

SUBSYSTEM: MPS
MDAC ID: 355
ITEM: LH2 ULLAGE PRESSURE SIGNAL CONDITIONER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-360X   BASELINE [   ]
NASA FMEA #:   0626-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 360
ITEM: LH2 INLET PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-361X   BASELINE [   ]
NASA FMEA #:   0626-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 361
ITEM: LH2 ENGINE MANIFOLD PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [D]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                          INADEQUATE   [   ]
REMARKS:
RELIEF SYSTEM WILL PROTECT AGAINST MANIFOLD RUPTURE. NO
REDUNDANCY FOR TRANSDUCER FAILURE.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-362X   BASELINE [   ]
NASA FMEA #:   0626-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 362
ITEM: GH2 OUTLET PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

          [3 /3]   [NA]   [NA]   [NA]   [D]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
TRANSDUCER FAILURE HAS NO EFFECT. NO REDUNDANCY.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-363X   BASELINE [   ]
NASA FMEA #:   0626-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 363
ITEM: GH2 DISCONNECT PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                           INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

REPORT DATE 03/11/88   C-308

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-364X   BASELINE [   ]
NASA FMEA #:   0627-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 364
ITEM: LH2 FEED MANIFOLD DISCONNECT TEMPERATURE
TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-365X
NASA FMEA #:   0627-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 365
ITEM: LH2 ENGINE INLET TEMPERATURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-366X   BASELINE [   ]
NASA FMEA #:   0202-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 366
ITEM: ENGINE HELIUM SUPPLY CHECK VALVE (CV1, 2, 3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

          [1 /1]   [NA]   [NA]   [NA]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
FAILURE WILL DEPLETE ALL 3 TANKS FOR THE AFFECTED ENGINE SYSTEM,
CAUSING THE ENGINE TO SHUT DOWN (CRIT 2). ESCAPING HELIUM MAY
OVERPRESSURIZE THE AFT COMPARTMENT (CRIT 1).
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-367X   BASELINE [   ]
NASA FMEA #:   0201-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 367
ITEM: HELIUM SUPPLY DISCONNECT (PD8)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-369X   BASELINE [   ]
NASA FMEA #:   0258-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 369
ITEM: ENGINE HELIUM SUPPLY CHECK VALVE
(CV25,26,36,37,41,42)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

      [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88
ASSESSMENT ID: MPS-370X
NASA FMEA #: 0205-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 370
ITEM: ENGINE HELIUM PRESSURE REGULATOR (PR1,2,3,7,8,9)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [D]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
THE REGULATOR IS NOT REQUIRED TO REMAIN CLOSED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-371X   BASELINE [   ]
NASA FMEA #:   0207-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 371
ITEM: ENGINE REGULATOR OUTLET CHECK VALVE
(CV5,6,7,29,40,45)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                          INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-372X   BASELINE [   ]
NASA FMEA #:   0262-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 372
ITEM: ENGINE HELIUM SUPPLY INTERCONNECT OUT VALVE
(LV60,62,64)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

           [3 /3]   [NA]   [NA]   [NA]   [D]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]
REMARKS:
FAILURE WILL HAVE NO EFFECT. RI/NASA CITES A LEAK AS A SECOND
FAILURE, BUT A LEAK IS A 1/1 FAILURE IN ISOLATION AND THUS SKEWS
THE ANALYSIS. ENGINES ARE NOT REDUNDANT.
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-373X   BASELINE [   ]
NASA FMEA #:   0261-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 373
ITEM: ENGINE HELIUM INTERCONNECT OUT CHECK VALVE
(CV28,39,44)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88
ASSESSMENT ID: MPS-374X
NASA FMEA #: 0259-3

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 374
ITEM: ENGINE HELIUM INTERCONNECT IN CHECK VALVE
(CV27,38,43)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [ ]
INADEQUATE   [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-375X   BASELINE [   ]
NASA FMEA #:   0202-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 375
ITEM: PNEUMATIC HELIUM SUPPLY CHECK VALVE (CV4)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
            CRITICALITY      REDUNDANCY SCREENS          CIL
              FLIGHT                                     ITEM
            HDW/FUNC      A         B         C

   NASA   [ 2 /1R ]    [ P ]     [ F ]     [ P ]      [ X ] *
    IOA   [ 1 /1  ]    [ NA]     [ NA]     [ NA]      [    ]

COMPARE   [ N /N  ]    [ N ]     [ N ]     [ N ]      [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
        [ 1 /1  ]     [ NA]     [ NA]     [ NA]       [    ]
                                                    (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
POSSIBLE OVERPRESSURIZATION.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-376X   BASELINE [   ]
NASA FMEA #:   0631-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 376
ITEM: GO2 PRESSURIZATION MANIFOLD REPRESSURIZATION
CHECK VALVE (CV10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-377X   BASELINE [   ]
NASA FMEA #:   0603-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 377
ITEM: LO2 FEED MANIFOLD REPRESSURIZATION CHECK VALVE
(CV12)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

       [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-378X   BASELINE [   ]
NASA FMEA #:   0605-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 378
ITEM: GH2 PRESSURIZATION MANIFOLD REPRESSURIZATION
CHECK VALVE (CV13)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

       [3 /3]   [NA]   [NA]   [NA]   [D]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
PRESSURIZATION IS NOT REQUIRED. DEGRADED DUMP.
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-379X   BASELINE [   ]
NASA FMEA #:   0605-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 379
ITEM: GH2 PRESSURIZATION MANIFOLD REPRESSURIZATION
CHECK VALVE (CV13)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

          CRITICALITY   REDUNDANCY SCREENS   CIL
             FLIGHT   ITEM
           HDW/FUNC   A   B   C

    NASA [2 /1R]   [P]   [F]   [P]   [X] *
     IOA [2 /1R]   [P]   [F]   [P]   [X]

COMPARE   [/]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-380X   BASELINE [   ]
NASA FMEA #:   0632-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 380
ITEM: LH2 RECIRCULATION MANIFOLD REPRESSURIZATION
CHECK VALVE (CV14)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-381X   BASELINE [   ]
NASA FMEA #:   0630-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 381
ITEM: LH2 FEED MANIFOLD NOMINAL REPRESS CHECK VALVE
(CV15)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
           CRITICALITY      REDUNDANCY SCREENS           CIL
             FLIGHT                                       ITEM
           HDW/FUNC       A        B        C

   NASA   [ 1 /1  ]    [ NA]    [ NA]    [ NA]       [ X ] *
    IOA   [ 1 /1  ]    [ NA]    [ NA]    [ NA]       [   ]

COMPARE   [   /   ]    [   ]    [   ]    [   ]       [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]    [   ]    [   ]    [   ]       [   ]
                                                  (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-382X   BASELINE [   ]
NASA FMEA #:   0605-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 382
ITEM: GH2 PRESSURIZATION MANIFOLD REPRESSURIZATION
CHECK VALVE (CV24)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

          [3 /3]   [NA]   [NA]   [NA]   [D]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
LOSS OF REPRESS TO GH2 MANIFOLD. NO LOSS OF CREW OR VEHICLE.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-383X   BASELINE [   ]
NASA FMEA #:   0605-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 383
ITEM: GH2 PRESSURIZATION MANIFOLD REPRESSURIZATION
CHECK VALVE (CV24)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-384X   BASELINE [   ]
NASA FMEA #:   0248-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 384
ITEM: LH2 FEED MANIFOLD RTLS REPRESSURIZATION CHECK
VALVE (CV30)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

           [/   ]   [   ]   [   ]   [   ]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
H2 LEAKAGE INOT AFT COMPARTMENT AFTER ISOLATION VALVE IS OPENED.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-385X   BASELINE [   ]
NASA FMEA #:   0238-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 385
ITEM: PNEUMATIC HELIUM SUPPLY ISOLATION VALVE (LV7, 8)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

    [/   ]   [   ]   [   ]   [   ]   [   ]
                                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-386X   BASELINE [   ]
NASA FMEA #:   0290-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 386
ITEM: VALVE ACTUATION SOLENOIDS DOWNSTREAM OF CV9
(LV12,14,16,18,20,22,47,49,50,65,66,67,68,79,83,84,85)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-387X   BASELINE [   ]
NASA FMEA #:   0290-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 387
ITEM: VALVE ACTUATION SOLENOIDS DOWNSTREAM OF CV9
(LV12,14,16,18,20,22,47,49,50,65,66,67,68,79,83,84,85)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-14-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-388X   BASELINE [   ]
NASA FMEA #:   0291-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 388
ITEM: VALVE ACTUATION SOLENOID VALVES UPSTREAM OF CV9
(LV28,29,30,31,32,33,34,36,38,77,78)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

            [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-9-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/08/88   NASA DATA:
ASSESSMENT ID: MPS-389X   BASELINE [   ]
NASA FMEA #:   0291-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 389
ITEM: VALVE ACTUATION SOLENOID VALVES UPSTREAM OF CV9
(LV28,29,30,31,32,33,34,36,38,77,78)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-9-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/10/88
ASSESSMENT ID: MPS-390X
NASA FMEA #:   0606-4

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 390
ITEM: LH2 MANIFOLD REPRESSURIZATION VALVES (LV42, 43)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
INBOARD VALVE (LV42) IS 1/1. OUTBOARD VALVE (LV43) IS 2/1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-391X   BASELINE [   ]
NASA FMEA #:   0215-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 391
ITEM: LH2 RECIRCULATION DISCONNECT VALVE OPENING
SOLENOID (LV50)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

            [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-393X   BASELINE [   ]
NASA FMEA #:   0263-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 393
ITEM: LATCH LOCKING SOLENOIDS (OV65, 67)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

           [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                             ADEQUATE   [   ]
                                           INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-11-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-394X   BASELINE [   ]
NASA FMEA #:   0263-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 394
ITEM: LATCH HOOK

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                             (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                          ADEQUATE [   ]
                      INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-395X   BASELINE [   ]
NASA FMEA #:   0263-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 395
ITEM: LATCH LOCK SOLENOID (LV65, 67)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

           [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-396X   BASELINE [   ]
NASA FMEA #:   0264-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 396
ITEM: LATCH UNLOCK SOLENOID (LV66, 68)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-12-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-397X   BASELINE [   ]
NASA FMEA #:   0264-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 397
ITEM: LATCH UNLOCK SOLENOID (LV66, 68)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-12-
87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-398X   BASELINE [   ]
NASA FMEA #:   0264-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 398
ITEM: LATCH UNLOCK SOLENOID (LV66, 68)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

    [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 12-12-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-399X   BASELINE [   ]
NASA FMEA #:   0246-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 399
ITEM: LH2 FEED MANIFOLD RTLS PRESSURIZATION VALVE
(LV74, 75)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-400X   BASELINE [   ]
NASA FMEA #:   0602-3   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 400
ITEM: LO2 MANIFOLD REPRESSURIZATION REGULATOR (PR5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
FAILURE OF REGULATOR FOLLOWED BY FAILURE OF BOTH SOLENOID VALVES
(LV40, 41) WILL RESULT IN HELIUM INJECTION INTO THE LO2 MANIFOLD.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-401X   BASELINE [   ]
NASA FMEA #:   2071-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 401
ITEM: TOGGLE SWITCH (3)

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
3 TOGGLE SWITCHES. THIS FMEA FAILURE MODE (NO OUTPUT IN OPEN
POSITION) WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.
FEEDLINE PRESSURE RELIEF, AFTER MECO, WILL EXIST THROUGH THE
ENGINE. REFERENCE ASSESSMENT MPS-4150 (REMARKS).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88　　　　　　　NASA DATA:
ASSESSMENT ID:　MPS-402X　　　　　　　BASELINE [　　]
NASA FMEA #:　　2072-2　　　　　　　　　　　NEW [X]

SUBSYSTEM:　　　EPD&C/MPS
MDAC ID:　　　　402
ITEM:　　　　　　CLOSE RPC

LEAD ANALYST:　R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[　] *
IOA	[3 /1R]	[P]	[P]	[P]	[　]
COMPARE	[/]	[　]	[　]	[　]	[　]

RECOMMENDATIONS:　(If different from NASA)

[/]　　[　]　　[　]　　[　]　　[　]
　　　　　　　　　　　　　　　　　　　　　　(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
　　　　　　　　　　　　　　　　ADEQUATE　[　]
　　　　　　　　　　　　　　　　INADEQUATE [　]

REMARKS:
12 CLOSE RPC'S.　THIS FMEA FAILURE MODE (INADVERTENT OUTPUT) WAS
NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-403X   BASELINE [   ]
NASA FMEA #:   2073-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 403
ITEM: CLOSE RPC OUTPUT DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]
REMARKS:
12 DIODES. THIS FMEA FAILURE MODE (DIODE SHORT, CURRENT LEAKAGE)
WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-404X   BASELINE [   ]
NASA FMEA #:   2073-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 404
ITEM: CLOSE RPC OUTPUT DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:
12 DIODES. THIS FMEA FAILURE MODE (DIODE SHORT TO GND) WAS NOT
NOTED DURING THE ORIGINAL IOA ANALYSIS. FAILURE WILL BE
REFLECTED AS AN RPC FAIL OPEN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-405X
NASA FMEA #:   2074-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 405
ITEM: CLOSE HDC III

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
12 HDC III DRIVERS. THIS FMEA FAILURE MODE (CLOSE HDC III DRIVER
FAIL ON) WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.
FUNCTIONAL CRITICALITY DETERMINED BY LIKE AND UNLIKE REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-406X   BASELINE [   ]
NASA FMEA #:   2075-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 406
ITEM: CLOSE HDC I

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
3 CLOSE HDC Is. THIS FMEA FAILURE MODE (CLOSE HDC I DRIVER FAIL
ON) WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS. FUNCTIONAL
CRITICALITY DETERMINED BY LIKE AND UNLIKE REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-407X   BASELINE [   ]
NASA FMEA #:   2076-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 407
ITEM: OPEN RPC

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

            [/   ]   [   ]   [   ]   [   ]   [   ]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
12 OPEN RPCs. THIS FMEA FAILURE MODE (LO2 OPEN PREVALVE RPC
"LOSS OF OUTPUT") WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.
FUNCTIONAL CRITICALITY DETERMINED BY LIKE AND UNLIKE REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-408X   BASELINE [   ]
NASA FMEA #:   2077-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 408
ITEM: OPEN RPC OUTPUT DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

```
           CRITICALITY      REDUNDANCY SCREENS          CIL
              FLIGHT                                    ITEM
           HDW/FUNC       A         B         C

   NASA   [ 3 /1R ]    [ P ]     [ F ]     [ P ]     [ X ] *
   IOA    [ 3 /1R ]    [ P ]     [ F ]     [ P ]     [ X ]

COMPARE   [   /   ]    [   ]     [   ]     [   ]     [   ]
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RECOMMENDATIONS: (If different from NASA)

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           [   /   ]    [   ]     [   ]     [   ]          [   ]
                                                    (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                          INADEQUATE   [   ]
REMARKS:
12 OPEN DIODES. THIS FMEA FAILURE MODE (ISOLATION DIODE SHORTED)
WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS. FUNCTIONAL
CRITICALITY DETERMINED BY LIKE AND UNLIKE REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-409X   BASELINE [   ]
NASA FMEA #:   2077-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 409
ITEM: OPEN RPC OUTPUT DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [P]   [P]   [D]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
12 OPEN DIODES. THE FMEA FAILURE MODE (DIODE SHORTED TO GROUND)
WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS. SHORTED DIODE
WILL BE REFLECTED BY THE RPC "ON MEASUREMENT" TURNING OFF.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-410X   BASELINE [   ]
NASA FMEA #:   2079-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 410
ITEM: OPEN HDC I

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
3 OPEN HDC Is. THE FMEA FAILURE MODE (DRIVER FAIL ON) WAS NOT
NOTED DURING THE ORIGINAL IOA ANALYSIS. FUNCTIONAL CRITICALITY
DETERMINED BY LIKE AND UNLIKE REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-411X   BASELINE [   ]
NASA FMEA #:   2180-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 411
ITEM: OPEN MDM BLOCKING DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
12 OPEN MDM BLOCKING DIODES. THIS FMEA FAILURE MODE (DIODE
SHORTED) WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-412X   BASELINE [   ]
NASA FMEA #:   2181-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 412
ITEM: CLOSE MDM BLOCKING DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

            [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
12 CLOSE MDM BLOCKING DIODES. THIS FMEA FAILURE MODE (DIODE
SHORTED) WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-413X
NASA FMEA #: 2183-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 413
ITEM: CLOSE MDM BLOCKING DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]
REMARKS:
9 CLOSE MDM BLOCKING DIODES. THIS FMEA FAILURE MODE (DIODE
SHORTS) WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-414X   BASELINE [   ]
NASA FMEA #:   2185-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 414
ITEM: OPEN SWITCH BLOCKING DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [P]   [A]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
12 OPEN SWITCH BLOCKING DIODES. DIODE FAILS B SCREEN BECAUSE
REDUNDANCY MASKS THE FAILURE, AND LACK OF INSTRUMENTATION. THIS
FMEA FAILURE MODE (DIODE SHORTS) WAS NOT NOTED DURING THE
ORIGINAL IOA ANALYSIS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-415X   BASELINE [   ]
NASA FMEA #:   2186-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 415
ITEM: CLOSE SWITCH BLOCKING DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [3 /1R]   [P]   [F]   [P]   [A]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                             ADEQUATE   [   ]
                                             INADEQUATE [   ]
REMARKS:
12 CLOSE SWITCH BLOCKING DIODES. LOSS OF ALL REDUNDANCY (GPC AND
MANUAL) IN CLOSING THE LO2 PREVALVE COULD POSSIBLY CAUSE LOSS OF
VEHICLE/CREW. FAILS B SCREEN BECAUSE REDUNDANCY MASKS THE
FAILURE. THIS FMEA FAILURE MODE (DIODE SHORTS) WAS NOT NOTED
DURING THE ORIGINAL IOA ANALYSIS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-416X
NASA FMEA #:   2188-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 416
ITEM: CLOSE SWITCH BLOCKING DIODE

LEAD ANALYST: R. O'DONNELL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
12 CLOSE SWITCH BLOCKING DIODES. LOSS OF ALL REDUNDANCY (GPC AND MANUAL) IN CLOSING THE LO2 PREVALVE COULD POSSIBLY CAUSE LOSS OF VEHICLE/CREW. FAILS B SCREEN BECAUSE REDUNDANCY MASKS THE FAILURE. THIS FMEA FAILURE MODE (DIODE SHORTS) WAS NOT NOTED DURING THE ORIGINAL IOA ANALYSIS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-417X
NASA FMEA #:   2011-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 417
ITEM: LO2 TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
THIS SWITCH IS NOT USED DURING NOMINAL ASCENT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-418X
NASA FMEA #:   2011-2

NASA DATA:
  BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 418
ITEM: LO2 TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                             (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                  INADEQUATE [   ]

REMARKS:
THIS SWITCH IS NOT USED BY THE CREW DURING NOMINAL ASCENT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88
ASSESSMENT ID: MPS-419X
NASA FMEA #:   2011-4

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 419
ITEM: LO2 TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-420X   BASELINE [   ]
NASA FMEA #:   2011-5   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 420
ITEM: LO2 TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-421X   BASELINE [   ]
NASA FMEA #:   2238B-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 421
ITEM: BLOCKING DIODE, SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

      [3 /1R]   [P]   [F]   [P]   [A]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
ASSESSMENT IS FOR ONE DIODE. THE BLOCKING PROTECTION OF THE
DIODE IS NOT STANDBY REDUNDANT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-422X   BASELINE [   ]
NASA FMEA #:   2239-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 422
ITEM: BLOCKING DIODE, MDM TO RPC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-423X   BASELINE [   ]
NASA FMEA #:   2039-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 423
ITEM: DIODE RPC C OUTPUT, 12A

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-424X   BASELINE [   ]
NASA FMEA #:   2240-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 424
ITEM: DIODE, RPC CROSSOVER, 12A

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY      REDUNDANCY SCREENS           CIL
                 FLIGHT                                     ITEM
               HDW/FUNC        A        B        C

        NASA  [ 3 /1R ]     [ P ]    [ F ]    [ P ]      [ X ] *
         IOA  [ 3 /1R ]     [ P ]    [ F ]    [ P ]      [ X ]

COMPARE       [   /   ]     [   ]    [   ]    [   ]      [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
              [   /   ]     [   ]    [   ]    [   ]        [   ]
                                                        (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                         INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-425X   BASELINE [   ]
NASA FMEA #:   2397-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 425
ITEM: RPC A OUTPUT DIODE, 12A

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[N]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
NOT ENOUGH DATA AVAILABLE TO RESOLVE SCREEN A.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/28/88   NASA DATA:
ASSESSMENT ID: MPS-426X   BASELINE [   ]
NASA FMEA #:   2397-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 426
ITEM: RPC A OUTPUT DIODE, 12A

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

           CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
            HDW/FUNC   A   B   C

     NASA [3 /1R]   [P]   [P]   [P]   [   ] *
      IOA [3 /1R]   [P]   [P]   [P]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-427X   BASELINE [   ]
NASA FMEA #:   2056B-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 427
ITEM: DIODE, OP SW BLOCK (LCA)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [P]   [P]   [D]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
PASSES SCREEN B DUE TO LO2 OUTBOARD F/D OPEN SW SCAN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-428X   BASELINE [   ]
NASA FMEA #:   2058B-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 428
ITEM: HYBRID DRIVER, TYPE 3 (CLOSE)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-429X   BASELINE [   ]
NASA FMEA #:   2354B-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 429
ITEM: DIODE, LA1 MDM ISOLATION

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY     REDUNDANCY SCREENS           CIL
              FLIGHT                                      ITEM
             HDW/FUNC       A        B        C

     NASA  [ 3 /3 ]      [ NA]    [ NA]    [ NA]       [   ] *
      IOA  [ 3 /3 ]      [ NA]    [ NA]    [ NA]       [   ]

COMPARE   [   /   ]      [   ]    [   ]    [   ]       [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]     [   ]    [   ]    [   ]       [   ]
                                                    (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-430X   BASELINE [   ]
NASA FMEA #:   2355B-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 430
ITEM: DIODE, OP SW BLOCK (MODULE)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [D]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [X]

REMARKS:
THERE IS NO ELECTRICAL GROUND ON S6. NASA SCENARIO IS
INFEASIBLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-431X   BASELINE [   ]
NASA FMEA #:   2356B-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 431
ITEM: DIODE, OPEN MDM ISOLATION

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-432X   BASELINE [   ]
NASA FMEA #:   2359B-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 432
ITEM: TRANSIENT SUPPRESSION DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [P]   [P]   [A]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]

REMARKS:
IOA ANALYSIS IS POSSIBLE AND MORE CRITICAL.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88
ASSESSMENT ID: MPS-433X
NASA FMEA #:   2037-5

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 433
ITEM: LO2 INBOARD FILL & DRAIN TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [P]   [P]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [X]
INADEQUATE [   ]

REMARKS:
PASS SCREEN B DUE TO DETECTION BY CLOSE SW SCAN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-434X   BASELINE [   ]
NASA FMEA #:   2281-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 434
ITEM: DIODE (2), OPEN SW BLOCK (MODULE)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [ ]   [ ]   [ ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [X]
                                 INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-435X   BASELINE [   ]
NASA FMEA #:   2282-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 435
ITEM: DIODE (3A), OPEN BLOCK A (LCA)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [X]
                                        INADEQUATE [   ]
REMARKS:
NOT DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/14/88   NASA DATA:
ASSESSMENT ID: MPS-436X   BASELINE [   ]
NASA FMEA #:   2283-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 436
ITEM: DIODE (3A), OPEN SW BLOCK B (LCA)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY    REDUNDANCY SCREENS          CIL
              FLIGHT                                   ITEM
             HDW/FUNC      A        B        C

    NASA   [ 2 /1R ]    [ P ]    [ P ]    [ P ]     [ X ] *
     IOA   [ 2 /1R ]    [ P ]    [ P ]    [ P ]     [ X ]

COMPARE    [   /   ]    [   ]    [   ]    [   ]      [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]    [ ' ]    [   ]    [   ]          [   ]
                                                    (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88
ASSESSMENT ID: MPS-437X
NASA FMEA #:   2284-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 437
ITEM: DIODE (3A), FA1 MDM BLOCK

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-438X   BASELINE [   ]
NASA FMEA #:   2285-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 438
ITEM: DIODE (3A), FA4 MDM BLOCK

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [·]   [! ·]   [! ·]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-439X   BASELINE [   ]
NASA FMEA #:   2286-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 439
ITEM: DIODE (3A), CL SW BLOCK

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[　　] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[　/　]	[　]	[N]	[　]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                 ADEQUATE [   ]
                               INADEQUATE [   ]
REMARKS:
FAILURE NOT DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88
ASSESSMENT ID: MPS-440X
NASA FMEA #:   2287-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 440
ITEM: DIODE (3A), FA2 MDM BLOCK

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [‹]   [‹]   [‹]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88
ASSESSMENT ID: MPS-441X
NASA FMEA #:   2288-2

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 441
ITEM: DIODE, LA1 MDM BLOCK

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-442X   BASELINE [   ]
NASA FMEA #:   2247-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 442
ITEM: HYBRID DRIVER, TYPE 1, CL

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-443X   BASELINE [   ]
NASA FMEA #:   2246-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 443
ITEM: HYBRID DRIVER, TYPE 1, OP

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-444X   BASELINE [   ]
NASA FMEA #:   2245-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 444
ITEM: HYBRID DRIVER, TYPE 3, CL

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [X]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/19/88   NASA DATA:
ASSESSMENT ID: MPS-445X   BASELINE [   ]
NASA FMEA #:   2245-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 445
ITEM: HYBRID DRIVER, TYPE 3, CL

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [ ]   [ ]   [ ]   [ ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [X]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/15/88   NASA DATA:
ASSESSMENT ID: MPS-446X   BASELINE [ ]
NASA FMEA #: 2249-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 446
ITEM: DIODE (12A), CL RPC "B" OUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/] [ ] [ ] [ ] [ ]
               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
            ADEQUATE [X]
           INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88
ASSESSMENT ID: MPS-447X
NASA FMEA #: 2249-3

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 447
ITEM: DIODE (12A), CL RPC "B" OUT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-448X   BASELINE [   ]
NASA FMEA #:   2251-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 448
ITEM: DIODE (12A), CL XOVER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [X]
                                      INADEQUATE   [   ]
REMARKS:
THE FAILURE MAY NOT BE DETECTED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-449X   BASELINE [   ]
NASA FMEA #:   2251-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 449
ITEM: DIODE (12A), CL XOVER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

      [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [X]
                                          INADEQUATE [   ]

REMARKS:
FAILURE CAN SHORT ALL CLOSING COMMANDS TO GROUND, PREVENTING
VALVE CLOSURE. ET SEP WITH VALVE OPEN CAN CAUSE LOSS OF VEHICLE.
MECHANICAL LINKAGE PROVIDES REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-450X   BASELINE [   ]
NASA FMEA #:   2254-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 450
ITEM: RESISTOR OP POS SW MONITOR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                  ADEQUATE   [   ]
                                  INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88 NASA DATA:
ASSESSMENT ID: MPS-451X   BASELINE [   ]
NASA FMEA #:   2255-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 451
ITEM: RESISTOR CL POS SW MONITOR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
[NASA	[3 /1R]	P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE [   ]
                                   INADEQUATE [   ]
REMARKS:
LOSS OF MONITORING. ONLY REF AVAIL: MPS/EPDC FMEA REVIEW SUMMARY
8-17-87.

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-452X   BASELINE [   ]
NASA FMEA #:   2244-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 452
ITEM: HYBRID DRIVER, TYPE 3, OP

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [/]   [ ]   [ ]   [ ]   [   ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [X]
                                    INADEQUATE [   ]

REMARKS:
ASSESSMENT IS FOR 1 HDC.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-453X   BASELINE [   ]
NASA FMEA #:   2244-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 453
ITEM: HYBRID DRIVER, TYPE 3, OP

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [X]
                                    INADEQUATE [   ]
REMARKS:
ASSESSMENT IS FOR 1 HDC.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-454X   BASELINE [   ]
NASA FMEA #:   2398-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 454
ITEM: DIODE CL RPC "C" OUT (12A)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [X]
                                      INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/21/88
ASSESSMENT ID: MPS-455X
NASA FMEA #: 2398-3

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 455
ITEM: DIODE CL RPC "C" OUT (12A)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
SECOND FAILURE CAN SHORT ALL CLOSE COMMANDS TO GROUND, PREVENTING VALVE CLOSURE. MECHANICAL LINKAGE PROVIDES REDUNDANCY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-456X
NASA FMEA #: 2026-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 456
ITEM: HDC I-GND C/O CMD PWR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-457X   BASELINE [   ]
NASA FMEA #:   2026-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 457
ITEM: HDC I-GND C/O CMD PWR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY      REDUNDANCY SCREENS        CIL
               FLIGHT                                  ITEM
             HDW/FUNC      A         B         C

    NASA   [ 2 /1R ]    [ P ]     [ F ]     [ P ]    [ X ] *
     IOA   [ 2 /1R ]    [ P ]     [ F ]     [ P ]    [ X ]

COMPARE    [   /   ]    [   ]     [   ]     [   ]    [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]    [   ]     [   ]     [   ]        [   ]
                                                     (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-458X   BASELINE [   ]
NASA FMEA #:   2031-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 458
ITEM: TRANSIENT SUPPRESSION DIODES

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [P]   [A]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
THE IOA SCENARIO IS POSSIBLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-459X   BASELINE [   ]
NASA FMEA #:   2031-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 459
ITEM: ZENER DIODES

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]
REMARKS:

REPORT DATE 03/11/88   C-402

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-460X   BASELINE [   ]
NASA FMEA #:   2032-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 460
ITEM: HDC I-RELAY CONTROL PWR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY    REDUNDANCY SCREENS        CIL
               FLIGHT                                ITEM
            HDW/FUNC      A        B        C

    NASA  [ 2 /1R ]    [ P ]    [ P ]    [ P ]    [ X ] *
     IOA  [ 2 /1R ]    [ P ]    [ P ]    [ P ]    [ X ]

COMPARE   [   /   ]    [   ]    [   ]    [   ]    [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
            [   /   ]    [   ]    [   ]    [   ]       [   ]
                                                    (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-461X   BASELINE [   ]
NASA FMEA #:   2032-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 461
ITEM: HDC I-RELAY CONTROL PWR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [3 /1R]   [P]   [F]   [P]   [   ]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
NASA DOES NOT CALL THE FIALURE OF A TRANSDUCER AND THE SWITCH TO
STANDBY TRANSDUCER A FAILURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88   NASA DATA:
ASSESSMENT ID: MPS-462X   BASELINE [   ]
NASA FMEA #:   2033-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 462
ITEM: RELAY

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [ ]   [ ]   [ ]   [   ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                               ADEQUATE [   ]
INADEQUATE   [   ]
  REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/26/88
ASSESSMENT ID: MPS-463X
NASA FMEA #: 2033-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 463
ITEM: RELAY

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/09/88   NASA DATA:
ASSESSMENT ID: MPS-464X   BASELINE [   ]
NASA FMEA #:   2225-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 464
ITEM: HDC III

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                           INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-465X   BASELINE [   ]
NASA FMEA #:   2090-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 465
ITEM: CL HDC III

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

    [2 /1R]   [P]   [F]   [P]   [A]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
THE IOA SCENARIO IS MORE CRITICAL.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-466X   BASELINE [   ]
NASA FMEA #:   2090-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 466
ITEM: CL HDC III

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[2 /1R]   [P]   [F]   [P]   [A]
                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:
THE IOA SCENARIO IS MORE CRITICAL.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-467X
NASA FMEA #:   2091-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 467
ITEM: CL HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[2 /1R]   [P]   [F]   [P]   [A]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
THE IOA SCENARIO IS MORE CRITICAL.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-468X   BASELINE [   ]
NASA FMEA #:   2092-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 468
ITEM: CL RPC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY      REDUNDANCY SCREENS          CIL
               FLIGHT                                    ITEM
              HDW/FUNC      A         B         C

      NASA   [ 3 /3  ]    [ NA]    [ NA]    [ NA]     [   ] *
       IOA   [ 2 /1R ]    [ P ]    [ P ]    [ P ]     [ X ]

   COMPARE   [ N /N  ]    [ N ]    [ N ]    [ N ]     [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
          [ 2 /1R ]     [ P ]     [ P ]     [ P ]       [ A ]
                                                     (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
THE IOA SCENARIO IS MORE CRITICAL.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-469X   BASELINE [   ]
NASA FMEA #:   2092-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 469
ITEM: CL RPC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[2 /1R]   [P]   [P]   [P]   [A]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
THE IOA SCENARIO IS MORE CRITICAL.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-470X   BASELINE [   ]
NASA FMEA #:   2094-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 470
ITEM: CL RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-471X   BASELINE [   ]
NASA FMEA #:   2095-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 471
ITEM: XOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

            [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-472X   BASELINE [   ]
NASA FMEA #:   2093-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 472
ITEM: CL RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

       [2 /1R]   [P]   [P]   [P]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
INSTRUMENTATION WILL DETECT THE FAILURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-473X   BASELINE [   ]
NASA FMEA #:   2387-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 473
ITEM: POS SW MONITOR RESISTOR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-474X   BASELINE [   ]
NASA FMEA #:   2340-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 474
ITEM: LOCK RPC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2340-1 REV 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-475X   BASELINE [   ]
NASA FMEA #:   2340-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 475
ITEM: LOCK RPC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

             [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2340-2 REV 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-476X   BASELINE [   ]
NASA FMEA #:   2341-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 476
ITEM: UNLOCK RPC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2341-1 REV 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-477X   BASELINE [   ]
NASA FMEA #:   2341-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 477
ITEM: UNLOCK RPC (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

           CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
           HDW/FUNC   A   B   C

    NASA [3 /1R]   [P]   [P]   [P]   [   ] *
     IOA [3 /1R]   [P]   [P]   [P]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2341-2 REV 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-478X   BASELINE [   ]
NASA FMEA #:   2342-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 478
ITEM: LOCK HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2342-1 REV 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88
ASSESSMENT ID: MPS-479X
NASA FMEA #:   2342-2

NASA DATA:
  BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 479
ITEM: LOCK HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                  ADEQUATE   [   ]
                                 INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2342-2 REV 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-480X   BASELINE [   ]
NASA FMEA #:   2343-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 480
ITEM: UNLOCK HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
NASA FMEA NO 05-6J-2343-1 REV 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88
ASSESSMENT ID: MPS-481X
NASA FMEA #:   2343-2

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 481
ITEM: UNLOCK HDC I

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]
REMARKS:
NASA FMEA NO 05-6J-2343-2 REV 10/10/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-482X   BASELINE [   ]
NASA FMEA #:   2344-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 482
ITEM: LOCK HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88
ASSESSMENT ID: MPS-483X
NASA FMEA #:   2344-2

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 483
ITEM: LOCK HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-484X   BASELINE [   ]
NASA FMEA #:   2345-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 484
ITEM: UNLOCK HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
          CRITICALITY    REDUNDANCY SCREENS          CIL
             FLIGHT                                   ITEM
           HDW/FUNC      A         B         C

    NASA  [ 3 /1R ]    [ P ]     [ F ]     [ P ]    [ X ] *
    IOA   [ 3 /1R ]    [ P ]     [ F ]     [ P ]    [ X ]

COMPARE   [   /   ]    [   ]     [   ]     [   ]    [   ]
```

RECOMMENDATIONS: (If different from NASA)

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          [   /   ]    [   ]     [   ]     [   ]       [   ]
                                                    (ADD/DELETE)
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* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-485X   BASELINE [   ]
NASA FMEA #:   2345-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 485
ITEM: UNLOCK HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

                CRITICALITY   REDUNDANCY SCREENS   CIL
                  FLIGHT   ITEM
                 HDW/FUNC   A   B   C

        NASA   [3 /1R]   [P]   [F]   [P]   [X] *
         IOA   [3 /1R]   [P]   [F]   [P]   [X]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

               [/   ]   [   ]   [   ]   [   ]   [   ]
                                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

REPORT DATE 03/11/88   C-428

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-486X   BASELINE [   ]
NASA FMEA #:   2346-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 486
ITEM: LOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

            CRITICALITY   REDUNDANCY SCREENS   CIL
               FLIGHT   ITEM
            HDW/FUNC   A   B   C

   NASA   [3 /1R]   [P]   [F]   [P]   [X] *
    IOA   [3 /1R]   [P]   [F]   [P]   [X]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:

REPORT DATE 03/11/88   C-429

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-487X   BASELINE [   ]
NASA FMEA #:   2346-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 487
ITEM: LOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

              CRITICALITY   REDUNDANCY SCREENS   CIL
                FLIGHT   ITEM
              HDW/FUNC   A   B   C

      NASA [3 /1R]   [P]   [F]   [P]   [X] *
       IOA [3 /1R]   [P]   [F]   [P]   [X]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

            [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-488X   BASELINE [   ]
NASA FMEA #:   2346-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 488
ITEM: LOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2346-3 REV 11/4/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-489X   BASELINE [   ]
NASA FMEA #:   2347-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 489
ITEM: UNLOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                               ADEQUATE   [   ]
                                               INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/11/88   NASA DATA:
ASSESSMENT ID: MPS-490X   BASELINE [   ]
NASA FMEA #:   2347-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 490
ITEM: UNLOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-491X   BASELINE [   ]
NASA FMEA #:   2347-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 491
ITEM: UNLOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2347-3 REV 11/19/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-492X   BASELINE [   ]
NASA FMEA #:   2348-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 492
ITEM: LOCK RPC XOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

            CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
            HDW/FUNC   A   B   C

    NASA [3 /1R]   [P]   [F]   [P]   [X] *
     IOA [3 /1R]   [P]   [F]   [P]   [X]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-493X   BASELINE [   ]
NASA FMEA #:   2348-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 493
ITEM: LOCK RPC XOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-494X   BASELINE [   ]
NASA FMEA #:   2348-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 494
ITEM: LOCK RPC XOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                              INADEQUATE [   ]

REMARKS:
NASA FMEA NO 05-6J-2348-3 REV 11/04/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-495X   BASELINE [   ]
NASA FMEA #:   2349-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 495
ITEM: UNLOCK RPC XOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                           ADEQUATE   [   ]
                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-496X   BASELINE [   ]
NASA FMEA #:   2349-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 496
ITEM: UNLOCK RPC XOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-497X   BASELINE [   ]
NASA FMEA #:   2349-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 497
ITEM: UNLOCK RPC XOVER DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-498X   BASELINE [   ]
NASA FMEA #:   2350-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 498
ITEM: TRANSIENT SUPPRESSOR DIODES (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
REF: MPS-498X.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88
ASSESSMENT ID: MPS-499X
NASA FMEA #:   2351-1

NASA DATA:
  BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 499
ITEM: UNLOCK POS SW MONITOR RESISTORS (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

  [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

                                  ADEQUATE   [   ]
                                INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. THE
FAILURE CAUSES A LOSS OF MONITORING CAPABILITY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-500X   BASELINE [   ]
NASA FMEA #:   2352-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 500
ITEM: LOCK POS SW MON RESISTOR (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
           CRITICALITY    REDUNDANCY SCREENS        CIL
             FLIGHT                                 ITEM
             HDW/FUNC     A        B        C

   NASA   [ 3 /3 ]    [ NA]    [ NA]    [ NA]     [   ] *
    IOA   [ 3 /3 ]    [ NA]    [ NA]    [ NA]     [   ]

COMPARE   [   /   ]   [   ]    [   ]    [   ]     [   ]
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RECOMMENDATIONS: (If different from NASA)

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          [   /   ]   [   ]    [   ]    [   ]        [   ]
                                                 (ADD/DELETE)
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* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-501X   BASELINE [   ]
NASA FMEA #:   2353-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 501
ITEM: RPC AND SOL PWR MON RESISTORS (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-502X   BASELINE [   ]
NASA FMEA #:   2376-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 502
ITEM: LOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-503X   BASELINE [   ]
NASA FMEA #:   2376-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 503
ITEM: LOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-504X   BASELINE [   ]
NASA FMEA #:   2376-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 504
ITEM: LOCK RPC B OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
NASA FMEA NO 05-6J-2376-3 REV 11/04/87 CONTAINS TEXT EXPLAINING
THAT THIS ITEM FAILS SCREEN B. THIS TEXT SHOULD BE DELETED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-505X   BASELINE [   ]
NASA FMEA #:   2377-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 505
ITEM: UNLOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY      REDUNDANCY SCREENS           CIL
                 FLIGHT                                     ITEM
               HDW/FUNC      A          B          C

        NASA  [ 3 /1R ]    [ P ]      [ F ]      [ P ]     [ X ] *
         IOA  [ 3 /1R ]    [ P ]      [ F ]      [ P ]     [ X ]

COMPARE       [   /   ]    [   ]      [   ]      [   ]     [   ]
```

RECOMMENDATIONS: (If different from NASA)

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              [   /   ]    [   ]      [   ]      [   ]        [   ]
                                                          (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88
ASSESSMENT ID: MPS-506X
NASA FMEA #:   2377-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 506
ITEM: UNLOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                          ADEQUATE   [   ]
                          INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-507X   BASELINE [   ]
NASA FMEA #:   2377-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 507
ITEM: UNLOCK RPC C OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/12/88   NASA DATA:
ASSESSMENT ID: MPS-508X   BASELINE [   ]
NASA FMEA #:   2378-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 508
ITEM: BLEED RESISTORS (4)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY    REDUNDANCY SCREENS        CIL
               FLIGHT                                ITEM
             HDW/FUNC      A        B        C

    NASA   [ 3 /3 ]     [ NA]    [ NA]    [ NA]    [    ] *
    IOA    [ 3 /3 ]     [ NA]    [ NA]    [ NA]    [    ]

COMPARE    [   /   ]    [   ]    [   ]    [   ]    [    ]
```

RECOMMENDATIONS: (If different from NASA)

```
          [   /   ]     [   ]   [   ]   [   ]        [    ]
                                                  (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                  INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-601X   BASELINE [   ]
NASA FMEA #:   2167-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 601
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

            [3 /3]   [NA]   [NA]   [NA]   [D]
                                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. THE
TOGGLE SWITCH IS NOT USED AT MECO.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-602X   BASELINE [   ]
NASA FMEA #:   2167-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 602
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY    REDUNDANCY SCREENS        CIL
              FLIGHT                                 ITEM
              HDW/FUNC     A       B       C

    NASA    [ 3 /1R ]    [ P ]   [ P ]   [ P ]     [   ] *
     IOA    [ 3 /1R ]    [ P ]   [ P ]   [ P ]     [   ]

COMPARE     [   /   ]    [   ]   [   ]   [   ]     [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
            [   /   ]    [   ]   [   ]   [   ]        [   ]
                                                  (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-603X   BASELINE [   ]
NASA FMEA #:   2167-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 603
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [D]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                           INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. THE TOGGLE
SWITCH IS NOT USED AT MECO.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-604X   BASELINE [   ]
NASA FMEA #:   2168-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 604
ITEM: CIRCUIT BREAKER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-605X   BASELINE [   ]
NASA FMEA #:   2168-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 605
ITEM: CIRCUIT BREAKER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY      REDUNDANCY SCREENS        CIL
                FLIGHT                                   ITEM
               HDW/FUNC     A         B         C

       NASA  [ 3 /1R ]    [ P ]     [ P ]     [ P ]     [    ] *
        IOA  [ 3 /1R ]    [ P ]     [ F ]     [ P ]     [ X ]

COMPARE      [   /   ]    [    ]    [ N ]     [    ]     [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
         [ 3 /1R ]     [ P ]    [ F ]    [ P ]        [ A ]
                                                   (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. THE
FAILURE OF SOME BUT NOT ALL CIRCUIT BREAKERS CAN BE DETECTED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-606X   BASELINE [   ]
NASA FMEA #:   2169-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 606
ITEM: SW SCAN RESISTOR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                       ADEQUATE   [   ]
                                     INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-607X   BASELINE [   ]
NASA FMEA #:   201300-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 607
ITEM: CONTROLLER HEATER CIRCUIT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
          CRITICALITY      REDUNDANCY SCREENS         CIL
             FLIGHT                                   ITEM
            HDW/FUNC      A         B         C

    NASA  [ 3 /3 ]     [ NA]     [ NA]     [ NA]      [   ] *
     IOA  [ 3 /3 ]     [ NA]     [ NA]     [ NA]      [   ]

COMPARE   [   /   ]    [   ]     [   ]     [   ]      [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
          [   /   ]    [   ]     [   ]     [   ]         [   ]
                                                      (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-615X   BASELINE [   ]
NASA FMEA #:   2165-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 615
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-88

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-616X   BASELINE [   ]
NASA FMEA #:   2165-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 616
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

       [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA USES
A FAILURE UNRELATED TO THE SWITCH TO CAUSE AN ABORT. THE ABORT
CRITICALITY IS 2/1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-617X   BASELINE [   ]
NASA FMEA #:   2165-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 617
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

     [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA USES
A FAILURE UNRELATED TO THE SWITCH TO CAUSE AN ABORT. THE ABORT
CRITICALITY IS 2/1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-618X   BASELINE [   ]
NASA FMEA #:   2165-4   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 618
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

      [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA'S
ANALYSIS IS FOR THE ABORT CASE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-619X   BASELINE [   ]
NASA FMEA #:   2166-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 619
ITEM: FUSE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

           CRITICALITY   REDUNDANCY SCREENS   CIL
             FLIGHT   ITEM
           HDW/FUNC   A   B   C

    NASA   [3 /1R]   [P]   [P]   [P]   [   ] *
    IOA   [3 /3]   [NA]   [NA]   [NA]   [   ]

COMPARE   [/N]   [N]   [N]   [N]   [   ]

RECOMMENDATIONS: (If different from NASA)

           [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA'S
ANALYSIS IS FOR THE ABORT CASE.

ASSESSMENT DATE: 2/15/88
ASSESSMENT ID: MPS-620X
NASA FMEA #:   2170-1

NASA DATA:
  BASELINE [   ]
       NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 620
ITEM: FUSE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

     [3 /3]   [NA]   [NA]   [NA]   [D]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDS FMEA REVIEW SUMMARY 8-17-87. NASA'S
ANALYSIS IS FOR AN ABORT. THE MANUAL SHUTDOWN CAPABILITY IS USED
WHEN LIMIT CONTROL IS INHIBITED AND AN ENGINE HELIUM SHUTDOWN
LIMIT VIOLATION OCCURS (I.E., ABORT CASE).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-621X   BASELINE [   ]
NASA FMEA #:   2171-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 621
ITEM: PUSHBUTTON SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [D]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA'S
ANALYSIS IS FOR AN ABORT. THE MANUAL SHUTDOWN CAPABILITY IS USED
WHEN LIMIT CONTROL IS INHIBITED AND AN ENGINE HELIUM SHUTDOWN
LIMIT VIOLATION OCCURS (I.E., ABORT CASE).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-622X   BASELINE [   ]
NASA FMEA #:   2171-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 622
ITEM: PUSHBUTTON SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[N /]	[ ]	[N]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [2 /1R]   [P]   [P]   [P]   [   ]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                               ADEQUATE   [   ]
                                               INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA
ASSUMES THE FAILURE OF A SINGLE WIPER WITHIN THE SWITCH. THIS IS
INCONSISTENT WITH PRIOR DEFINITIONS OF THIS FAILURE MODE. IOA
ASSUMES PREMATURE CLOSURE OF THE SWITCH.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-625X   BASELINE [   ]
NASA FMEA #:   2226-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 625
ITEM: ALL ECO SIM OPEN CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-626X   BASELINE [   ]
NASA FMEA #:   2226-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 626
ITEM: ALL ECO SIM OPEN CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-627X   BASELINE [   ]
NASA FMEA #:   2227-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 627
ITEM: ALL ECO SIM DRY CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-628X   BASELINE [   ]
NASA FMEA #:   2227-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 628
ITEM: ALL ECO SIM DRY CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                            ADEQUATE [   ]
                          INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDS FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-629X   BASELINE [   ]
NASA FMEA #:   2228-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 629
ITEM: ECO SIM WET CMD 1-4 HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-630X
NASA FMEA #: 2228-2

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 630
ITEM: ECO SIM WET CMD 1-4 HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-631X   BASELINE [   ]
NASA FMEA #:   2229-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 631
ITEM: LVL SENSOR SIM OPEN CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [   ]
                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                ADEQUATE   [   ]
                                INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-632X
NASA FMEA #:   2229-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 632
ITEM: LVL SENSOR SIM OPEN CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-633X
NASA FMEA #: 2230-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 633
ITEM: LVL SENSOR SIM DRY CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                ADEQUATE   [ ]
                                INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-634X
NASA FMEA #:   2230-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 634
ITEM: LVL SENSOR SIM DRY CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-635X   BASELINE [   ]
NASA FMEA #:   2231-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 635
ITEM: LVL SENSOR SIM WET CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-636X
NASA FMEA #:   2231-2

NASA DATA:
  BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 636
ITEM: LVL SENSOR SIM WET CMD HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [/]   [   ]   [   ]   [   ]   [   ]
                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                              ADEQUATE   [   ]
                            INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-640X   BASELINE [   ]
NASA FMEA #:   2027-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 640
ITEM: BUS 2 AND 3 UPSTREAM HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

[2 /1R]   [P]   [P]   [P]   [   ]
                                             (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
ONLY AVAILA REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. AN
UNDERLOAD WOULD NOT OCCUR BECAUSE OF THE FIRST FAILURE. SENSORS
ARE AVAILABLE AT 100.15%, 100%, 100%, AND 99.85% AND ARE ALL
POWERED BY A SEPARATE BUS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-641X   BASELINE [   ]
NASA FMEA #:   2027-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 641
ITEM: BUS 2 AND 3 UPSTREAM HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-642X   BASELINE [   ]
NASA FMEA #:   2028-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 642
ITEM: BUS 2 AND 3 DOWNSTREAM AND BUS 1 HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [2 /1R]   [P]   [F]   [P]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. AN
UNDERLOAD WOULD NOT OCCUR BECAUSE OF THE FIRST FAILURE. SENSORS
ARE AVAILABLE AT 100.15%, 100%, AND 99.85% AND ARE ALL POWERED BY
A SEPARATE BUS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-643X   BASELINE [   ]
NASA FMEA #:   2028-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 643
ITEM: BUS 2 AND 3 DOWNSTREAM AND BUS 1 HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                     ADEQUATE   [   ]
                                     INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-644X   BASELINE [   ]
NASA FMEA #:   2232-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 644
ITEM: BUS 4 RPC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[N /]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [3 /1R]   [P]   [P]   [P]   [D]
                                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. PARALLEL
POWER PATHS PROVIDE REDUNDANCY FOR THE FIRST FAILURE. A SECOND
FAILURE WILL NOT ELIMINATE TWO POWER SUPPLIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-645X   BASELINE [   ]
NASA FMEA #:   2232-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 645
ITEM: BUS 4 RPC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

REPORT DATE 03/11/88   C-484

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-646X   BASELINE [   ]
NASA FMEA #:   2233-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 646
ITEM: RPC OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY      REDUNDANCY SCREENS         CIL
                 FLIGHT                                   ITEM
                HDW/FUNC      A        B        C

       NASA   [ 2 /1R ]    [ P ]    [ F ]    [ P ]    [ X ]  *
        IOA   [ 3 /1R ]    [ P ]    [ F ]    [ P ]    [ X ]

COMPARE [ N /   ]          [   ]    [   ]    [   ]    [   ]
```

RECOMMENDATIONS: (If different from NASA)

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       [ 3 /1R ]       [ P ]    [ F ]    [ P ]         [   ]
                                                   (ADD/DELETE)
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* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. PARALLEL
POWER PATHS PROVIDE REDUNDANCY FOR THE FIRST FAILURE. A SECOND
FAILURE WILL NOT ELIMINATE TWO POWER SUPPLIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-647X
NASA FMEA #:   2233-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 647
ITEM: RPC OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE   [   ]
INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-648X   BASELINE [   ]
NASA FMEA #:   2233-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 648
ITEM: RPC OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

    [3 /1R]   [P]   [P]   [P]   [D]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                         INADEQUATE   [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. PARALLEL
POWER PATHS PROVIDE REDUNDANCY FOR THE FIRST FAILURE. A SECOND
FAILURE WILL NOT ELIMINATE TWO POWER SUPPLIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-649X   BASELINE [   ]
NASA FMEA #:   2234-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 649
ITEM: MONITORING RESISTOR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

REPORT DATE 03/11/88   C-488

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-650X   BASELINE [   ]
NASA FMEA #:   2395-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 650
ITEM: BLEED RESISTORS

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

            [/   ]   [   ]   [   ]   [   ]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88
ASSESSMENT ID: MPS-655X
NASA FMEA #:   2256-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 655
ITEM: RPC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                         (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-656X   BASELINE [   ]
NASA FMEA #:   2256-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 656
ITEM: RPC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY    REDUNDANCY SCREENS         CIL
               FLIGHT                                 ITEM
             HDW/FUNC      A         B         C

      NASA  [ 3 /3 ]    [ NA]    [ NA]    [ NA]    [   ] *
       IOA  [ 3 /3 ]    [ NA]    [ NA]    [ NA]    [   ]

COMPARE  [   /   ]      [   ]    [   ]    [   ]    [   ]
```


RECOMMENDATIONS: (If different from NASA)

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         [   /   ]    [   ]    [   ]    [   ]       [   ]
                                                (ADD/DELETE)
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* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88
ASSESSMENT ID: MPS-657X
NASA FMEA #:   2257-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 657
ITEM: HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88
ASSESSMENT ID: MPS-658X
NASA FMEA #:   2257-2

NASA DATA:
BASELINE [   ]
     NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 658
ITEM: HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-659X   BASELINE [   ]
NASA FMEA #:   2258-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 659
ITEM: MONITORING RESISTOR

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY      REDUNDANCY SCREENS        CIL
              FLIGHT                                   ITEM
            HDW/FUNC       A         B         C

    NASA  [ 3 /3  ]    [ NA]    [ NA]    [ NA]      [    ] *
     IOA  [ 3 /3  ]    [ NA]    [ NA]    [ NA]      [    ]

COMPARE   [   /   ]    [   ]    [   ]    [   ]      [    ]
```

RECOMMENDATIONS: (If different from NASA)

```
            [   /   ]    [   ]    [   ]    [   ]       [   ]
                                                   (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-660X   BASELINE [   ]
NASA FMEA #:   2259-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 660
ITEM: RPC OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-661X   BASELINE [   ]
NASA FMEA #:   2259-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 661
ITEM: RPC OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [ ]   [ ]   [ ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-662X   BASELINE [ ]
NASA FMEA #: 2259-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 662
ITEM: RPC OUTPUT DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

  [/   ] [   ] [   ] [   ] [   ]
               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
            ADEQUATE [   ]
          INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-663X   BASELINE [   ]
NASA FMEA #:   2380-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 663
ITEM: BLEED RESISTORS

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-667X   BASELINE [   ]
NASA FMEA #:   2161-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 667
ITEM: BACKUP LH2 VLV SWITCH FUSE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[N /]	[N]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [P]   [P]   [D]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. IOA CALLS
COMPUTER DUMP COMMAND REDUNDANT TO THE SWITCH DUMP COMMAND.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-668X   BASELINE [   ]
NASA FMEA #:   2162-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 668
ITEM: DUMP SEQUENCE SWITCH S1

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

                 [/   ]   [   ]   [   ]   [   ]   [   ]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-669X   BASELINE [   ]
NASA FMEA #:   2162-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 669
ITEM: DUMP SEQUENCE SWITCH S1

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[P]	[P]	[X]
COMPARE	[/]	[N]	[N]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

    [2 /1R]   [P]   [P]   [P]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87.
INSTRUMENTATION WOULD DETECT THE FAILURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-670X   BASELINE [   ]
NASA FMEA #:   2163-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 670
ITEM: BACKUP LH2 VALVE SWITCH S2

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[N /]	[N]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [P]   [P]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. IOA CALLS
COMPUTER DUMP COMMAND REDUNDANT TO THE SWITCH DUMP COMMAND.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88
ASSESSMENT ID: MPS-671X
NASA FMEA #: 2163-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 671
ITEM: BACKUP LH2 VALVE SWITCH S2

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-672X   BASELINE [   ]
NASA FMEA #:   2163-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 672
ITEM: BACKUP LH2 VALVE SWITCH S2

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [1 /1]   [NA]   [NA]   [NA]   [A]
                                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. PROPELLANT
VENTING DURING BOOST COULD CAUSE FIRE/EXPLOSION. SOFTWARE
INHIBITS WERE NOT CONSIDERED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-673X   BASELINE [   ]
NASA FMEA #:   2163-4   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 673
ITEM: BACKUP LH2 VALVE SWITCH S2

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
           CRITICALITY    REDUNDANCY SCREENS        CIL
             FLIGHT                                 ITEM
            HDW/FUNC      A        B        C

  NASA    [ 2 /1R ]    [ F ]    [ F ]    [ P ]    [ X ] *
   IOA    [ 2 /1R ]    [ P ]    [ P ]    [ P ]    [ X ]

COMPARE   [   /   ]    [ N ]    [ N ]    [   ]    [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
          [ 2 /1R ]    [ P ]    [ P ]    [ P ]      [   ]
                                                 (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. THE
FAILURE IS DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-675X   BASELINE [   ]
NASA FMEA #:   2023-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 675
ITEM: LIMIT RESISTORS

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/09/88   NASA DATA:
ASSESSMENT ID: MPS-676X   BASELINE [   ]
NASA FMEA #:   2396-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 676
ITEM: BLEED RESISTORS

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/   ]   [   ]   [   ]   [   ]   [   ]
                                               (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-680X   BASELINE [   ]
NASA FMEA #:   2416-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 680
ITEM: STATUS LIGHT

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [D]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                              ADEQUATE   [   ]
                                            INADEQUATE   [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA
VIOLATES NTS 22206 3.3.3F.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-681X   BASELINE [   ]
NASA FMEA #:   2407-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 681
ITEM: METER M1 (PC)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

           [3 /3]   [NA]   [NA]   [NA]   [D]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA
VIOLATES NTS 22206 3.3.3F.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-682X   BASELINE [   ]
NASA FMEA #:   2408-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 682
ITEM: METER M2 (LO2/LH2 MANF. PRESSURE)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-87. NASA
VIOLATES NTS 22206 3.3.3F.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-683X   BASELINE [   ]
NASA FMEA #:   2409-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 683
ITEM: METER M4 (HELIUM PRESSURE)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]

REMARKS:
NASA VIOLATES NTS 22206 2.3.3F. ONLY AVAIL REF: MPS/EPDC FMEA
REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-684X   BASELINE [   ]
NASA FMEA #:   2410-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 684
ITEM: TOGGLE SWITCH (TANK/REG SELECT FOR METER M4)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [D]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
NASA VIOLATES NTS 22206 2.3.3F. ONLY AVAIL REF: MPS/EPDC FMEA
REVIEW SUMMARY 8-17-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-801X   BASELINE [   ]
NASA FMEA #:   2018-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 801
ITEM: LH2 FEED MANIFOLD RTLS PRESS VALVES REMOTE POWER
CONTROLLERS (4)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:
ABORT CRITICALITY IS 2/1R FOR AN RTLS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88
ASSESSMENT ID: MPS-802X
NASA FMEA #:   2019-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 802
ITEM: LH2 FEED MANIFOLD RTLS PRESS VALVES RPC A OUTPUT
DIODE (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
CRITICALITY IS 2/1R FOR AN RTLS ABORT

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-803X   BASELINE [   ]
NASA FMEA #:   2048-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 803
ITEM: LH2 FEED MANIFOLD RTLS PRESS VALVES HYBRID
DRIVER CONTROLLERS (4)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
CRITICALITY IS 2/1R FOR AN RTLS ABORT

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-804X   BASELINE [   ]
NASA FMEA #:   2382-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 804
ITEM: LH2 FEED MANIFOLD RTLS PRESS VALVES RPC C OUTPUT
DIODE (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                     (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]

REMARKS:
CRITICALITY IS 2/1R FOR AN RTLS ABORT

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-805X   BASELINE [   ]
NASA FMEA #:   2383-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 805
ITEM: LH2 FEED MANIFOLD RTLS PRESS VALVES RPC C
CROSSOVER DIODES (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY     REDUNDANCY SCREENS          CIL
                 FLIGHT                                   ITEM
              HDW/FUNC      A        B        C

      NASA   [ 3 /3 ]    [ NA]    [ NA]    [ NA]      [    ] *
       IOA   [ 3 /3 ]    [ NA]    [ NA]    [ NA]      [    ]

  COMPARE    [   /   ]   [    ]   [    ]   [    ]      [    ]
```

RECOMMENDATIONS: (If different from NASA)

```
              [   /   ]    [    ]   [    ]   [    ]       [    ]
                                                       (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
THE FAILURE IS CRITICALITY 1/1 DURING AN RTLS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-806X   BASELINE [   ]
NASA FMEA #:   2050-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 806
ITEM: HELIUM SUPPLY BLOWDOWN VALVES HYBRID DRIVER
CONTROLLER

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

      [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                              ADEQUATE   [   ]
                                            INADEQUATE   [   ]
REMARKS:
CRITICALITY FOR AN ABORT IS 1/1.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-807X   BASELINE [   ]
NASA FMEA #:   2111-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 807
ITEM: HELIUM ISOLATION B VALVE TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-808X   BASELINE [   ]
NASA FMEA #:   2114-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 808
ITEM: HELIUM ISOLATION "B" VALVE SWITCH BLOCKING DIODE

LEAD ANALYST: MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

    [3 /1R]   [P]   [F]   [P]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
A LOSS OF ALL REDUNDANCY COULD RESULT IN AN EXPLOSION DUE TO LACK
OF HELIUM PURGE IN A SSME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/01/88   NASA DATA:
ASSESSMENT ID: MPS-809X   BASELINE [   ]
NASA FMEA #:   2115-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 809
ITEM: HELIUM ISOLATION "B" VALVE RPC OUTPUT DIODE (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

       [3 /1R]   [P]   [P]   [P]   [D]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                          INADEQUATE   [   ]
REMARKS:
THE FAILURE IS DETECTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-810X   BASELINE [   ]
NASA FMEA #:   2117-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 810
ITEM: HELIUM ISOLATION "A" VALVE TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-811X   BASELINE [   ]
NASA FMEA #:   2119-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 811
ITEM: HELIUM ISOLATION "A" VALVE SWITCH BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [P]   [A]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
LOSS OF ALL REDUNDANCY COULD RESULT IN AN EXPLOSION DUE TO LACK
OF HELIUM PURGE IN A SSME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-812X
NASA FMEA #: 2119-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 812
ITEM: HELIUM ISOLATION "A" VALVE SWITCH BLOCKING DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
LOSS OF ALL REDUNDNCY COULD RESULT IN AN EXPLOSION DUE TO LACK OF HELIUM PURGE IN A SSME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-813X   BASELINE [   ]
NASA FMEA #:   2120-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 813
ITEM: HELIUM ISOLATION VALVE TRANSIENT SUPPRESSION
DIODES

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

      [3 /1R]   [P]   [F]   [P]   [A]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
LOSS OF ALL REDUNDANCY COULD RESULT IN AN EXPLOSION DUE TO LACK
OF HELIUM PURGE IN A SSME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-814X   BASELINE [   ]
NASA FMEA #:   2300-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 814
ITEM: FUSES (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                               ADEQUATE [   ]
                             INADEQUATE [   ]

REMARKS:
PARALLEL PATH MASKS THE FAILURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-815X   BASELINE [   ]
NASA FMEA #:   2301-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 815
ITEM: HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]

REMARKS:
ONLY AVAILABLE REF: EPDC/MPS FMEA REVIEW SUMMARY 8-17-87 AFT
PURGE AFTER A NOMINAL MISSION IS NON-CRITICAL. CRITICALITY FOR
AN ABORT IS 2/1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-816X   BASELINE [   ]
NASA FMEA #:   2301-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 816
ITEM: HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [P]   [P]   [   ]
                                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                               ADEQUATE   [   ]
                                               INADEQUATE [   ]
REMARKS:
OPENING OF ALL REDUNDANT VALVES WOULD VENT HELIUM SUPPLY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-817X   BASELINE [   ]
NASA FMEA #:   2302-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 817
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                    INADEQUATE   [   ]
REMARKS:
CRITICALITY FOR AN ABORT IS 2/1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88
ASSESSMENT ID: MPS-818X
NASA FMEA #: 2302-2

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 818
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
A LOSS OF ALL REDUNDANCY COULD RESULT IN THE LOSS OF HELIUM
SUPPLY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/02/88   NASA DATA:
ASSESSMENT ID: MPS-819X   BASELINE [   ]
NASA FMEA #:   2302-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 819
ITEM: TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

       [3 /3]   [NA]   [NA]   [NA]   [D]
                                                   (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
AFT PURGE AFTER A NOMINAL MISSION IS NON-CRITICAL. CRITICALITY
FOR AN ABORT IS 2/1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-820X   BASELINE [   ]
NASA FMEA #:   2131-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 820
ITEM: HELIUM CROSSOVER VALVE TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [NA]   [P]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                              ADEQUATE   [   ]
                                              INADEQUATE [   ]
REMARKS:
THE NASA SCENARIO CALLS THE LOSS OF A SECOND UNRELATED ENGINE
REDUNDANCY. THE SWITCH IS STANDBY REDUNDANT. NSTS 22206 2.3.3L
REQUIRES ASSIGNMENT OF 3/1R FOR FAILURES RESULTING IN AN ENGINE
SHUTDOWN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-821X   BASELINE [   ]
NASA FMEA #:   2131-4   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 821
ITEM: HELIUM CROSSOVER VALVE TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [NA]   [P]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY. THE SWITCH IS
STANDBY REDUNDANT. NSTS 22206 2.3.3L REQUIRES ASSIGNMENT OF 3/1R
FOR FAILURES RESULTING IN AN ENGINE SHUTDOWN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-822X   BASELINE [   ]
NASA FMEA #:   2132-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 822
ITEM: HELIUM CROSSOVER VALVE CIRCUIT HDC

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                              ADEQUATE   [   ]
                                              INADEQUATE [   ]
REMARKS:
THE NASA SCENARIO CALLS THE LOSS OF A SECOND UNRELATED ENGINE
REDUNDANCY. NSTS 22206 2.3.3L REQUIRES ASSIGNMENT OF 3/1R FOR
FAILURES RESULTING IN AN ENGINE SHUTDOWN. NSTS 22206 2.3.3L
REQUIRES ASSIGNMENT OF 3/1R FOR FAILURES RESULTING IN AN
ENGINE SHUTDOWN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-823X   BASELINE [   ]
NASA FMEA #:   2133-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 823
ITEM: HELIUM CROSSOVER VALVE CIRCUIT BLOCKING DIODES
(2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY       REDUNDANCY SCREENS          CIL
              FLIGHT                                       ITEM
            HDW/FUNC        A          B          C

    NASA  [ 3 /3 ]      [ NA]      [ NA]      [ NA]      [   ] *
     IOA  [ 3 /3 ]      [ NA]      [ NA]      [ NA]      [   ]

COMPARE   [   /   ]     [   ]      [   ]      [   ]      [   ]
```

RECOMMENDATIONS: (If different from NASA)

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          [   /   ]     [   ]      [   ]      [   ]          [   ]
                                                        (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                          INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-824X   BASELINE [   ]
NASA FMEA #:   2311-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 824
ITEM: LO2 MANIFOLD REPRESS VALVES CIRCUIT FUSE (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
           CRITICALITY      REDUNDANCY SCREENS          CIL
              FLIGHT                                    ITEM
           HDW/FUNC      A         B         C

    NASA  [ 3 /3  ]   [ NA]    [ NA]     [ NA]       [   ] *
     IOA  [ 3 /3  ]   [ NA]    [ NA]     [ NA]       [   ]

COMPARE   [   /   ]   [   ]    [   ]     [   ]       [   ]
```

RECOMMENDATIONS: (If different from NASA)

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          [   /   ]   [   ]    [   ]     [   ]          [   ]
                                                    (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-825X   BASELINE [   ]
NASA FMEA #:   2312-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 825
ITEM: LO2 MANIFOLD REPRESS VALVES TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                         INADEQUATE   [   ]
REMARKS:

.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-826X   BASELINE [   ]
NASA FMEA #:   2313-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 826
ITEM: LO2 MANIFOLD REPRESS VALVES CIRCUIT HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
            CRITICALITY     REDUNDANCY SCREENS        CIL
               FLIGHT                                 ITEM
             HDW/FUNC      A        B        C

   NASA    [ 2 /1R ]    [ P ]    [ P ]    [ P ]    [ X ] *
    IOA    [ 2 /1R ]    [ P ]    [ P ]    [ P ]    [ X ]

COMPARE    [   /   ]    [   ]    [   ]    [   ]    [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]    [   ]    [   ]    [   ]        [   ]
                                                   (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-827X   BASELINE [   ]
NASA FMEA #:   N/A   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 827
ITEM: LO2 MANIFOLD REPRESS VALVES CIRCUIT MDM OA3

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
          CRITICALITY     REDUNDANCY SCREENS          CIL
             FLIGHT                                    ITEM
            HDW/FUNC      A        B        C

   NASA   [   /   ]    [   ]    [   ]    [   ]      [   ] *
    IOA   [ 3 /3  ]    [ NA]    [ NA]    [ NA]      [   ]

COMPARE   [ N /N  ]    [ N ]    [ N ]    [ N ]      [   ]
```

RECOMMENDATIONS: (If different from NASA)

```
          [ 3 /3  ]    [ NA]    [ NA]    [ NA]         [   ]
                                                   (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-828X   BASELINE [   ]
NASA FMEA #:   2310-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 828
ITEM: LH2 MANIFOLD REPRESS VALVES CIRCUIT FUSE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

```
              CRITICALITY     REDUNDANCY SCREENS        CIL
                 FLIGHT                                 ITEM
              HDW/FUNC        A        B        C

      NASA  [ 3 /3  ]     [ NA]    [ NA]    [ NA]    [    ] *
      IOA   [ 3 /3  ]     [ NA]    [ NA]    [ NA]    [    ]

COMPARE    [   /   ]      [    ]   [    ]   [    ]    [    ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]      [    ]   [    ]   [    ]          [    ]
                                                     (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-829X   BASELINE [   ]
NASA FMEA #:   2064-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 829
ITEM: LH2 MANIFOLD REPRESS VALVES TOGGLE SWITCH

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]

REMARKS:

REPORT DATE 03/11/88   C-541

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-830X   BASELINE [   ]
NASA FMEA #:   2065-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 830
ITEM: LH2 MANIFOLD REPRESS VALVES CIRCUIT HDC III (2)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                   ADEQUATE   [   ]
                                   INADEQUATE [   ]
REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-831X   BASELINE [   ]
NASA FMEA #:   N/A   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 831
ITEM: LH2 MANIFOLD REPRESS VALVES CIRCUIT MONITOR MDM
OA2

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

          [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                              ADEQUATE   [   ]
                                              INADEQUATE [   ]
REMARKS:

.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/03/88   NASA DATA:
ASSESSMENT ID: MPS-832X   BASELINE [   ]
NASA FMEA #:   2135-1   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 832
ITEM: TRANSIENT SUPPRESSION DIODE

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

       [3 /1R]   [P]   [F]   [P]   [A]
                                                       (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
FAILURES COULD LEAD TO GROUNDING OF THE OPEN POWER SOLENOID.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-833X   BASELINE [   ]
NASA FMEA #:   2141-5   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 833
ITEM: TOGGLE SWITCH, 2P3T (3)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[NA]	[P]	[ ] *
IOA	[3 /1R]	[P]	[NA]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

           [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                      INADEQUATE   [   ]
REMARKS:
NASA CALLS LOSS OF AN UNRELATED ENGINE A REDUNDANT FAILURE. NSTS
22206 2.3.3L REQUIRES ASSIGNMENT OF 3/1R FOR FAILURES RESULTING
IN AN ENGINE SHUTDOWN.
ONLY AVAIL REF: MPS/EPDC FMEA REVIEW SUMMARY 8-17-88.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-834X   BASELINE [   ]
NASA FMEA #:   2141-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 834
ITEM: HYBRID DRIVER, TYPE I (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                        INADEQUATE   [   ]
REMARKS:
NASA ASSUMES A HELIUM LEAK WHICH IS CRITICALITY 1/1 BY ITSELF TO
GET THEIR 1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/04/88   NASA DATA:
ASSESSMENT ID: MPS-835X   BASELINE [   ]
NASA FMEA #:   2143-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 835
ITEM: REMOTE POWER CONTROLLER (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [3 /3]   [NA]   [NA]   [NA]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
NASA ASSUMES A HELIUM LEAK WHICH IS CRITICALITY 1/1 BY ITSELF TO
GET THEIR 1R.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-836X   BASELINE [   ]
NASA FMEA #:   2144-3   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 836
ITEM: ISOLATION DIODES (6)

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[N]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

   [3 /1R]   [P]   [P]   [P]   [D]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
THE NASA SCENARIO CAUSES THE LOSS OF ONE ENGINE (LOSS OF
MISSION). THE SHORT TO GROUND WILL BE DETECTED. NSTS 22206
2.3.3L REQUIRES ASSIGNMENT OF 3/1R FOR FAILURES RESULTING IN AN
ENGINE SHUTDOWN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-837X   BASELINE [   ]
NASA FMEA #:   2145-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 837
ITEM: ISOLATION DIODES

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[F]	[P]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /1R]   [P]   [F]   [P]   [A]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                           INADEQUATE [   ]
REMARKS:
THE LOSS OF ONE ENGINE COULD RESULT IF ALL REDUNDANCY WERE LOST.
THE FAILURE IS NOT READILY DETECTABLE. NSTS 22206 2.3.3L
REQUIRES ASSIGNMENT OF 3/1R FOR FAILURES RESULTING IN AN ENGINE
SHUTDOWN.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/05/88   NASA DATA:
ASSESSMENT ID: MPS-838X   BASELINE [   ]
NASA FMEA #:   2146-2   NEW [X]

SUBSYSTEM: EPD&C/MPS
MDAC ID: 838
ITEM: ISOLATION DIODES

LEAD ANALYST: B. SLAUGHTER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-901X   BASELINE [   ]
NASA FMEA #:   0602-5   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 901
ITEM: LO2 MANIFOLD REPRESS REGULATOR (PR5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[N /]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [2 /1R]   [P]   [F]   [P]   [   ]
                                                          (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                           ADEQUATE   [   ]
                                           INADEQUATE [   ]
REMARKS:
REGULATOR WILL REMAIN OPEN, PRESSURIZING THE MANIFOLD. FAILURE
OF RELIEF SYSTEM DURING ENTRY MAY CAUSE MANIFOLD RUPTURE. NO
HAZARD DURING DUMP PRESSURIZATION.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-902X   BASELINE [   ]
NASA FMEA #:   0629-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 902
ITEM: LH2 MANIFOLD REPRESSURIZATION REGULATOR (PR6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

       [3 /1R]   [P]   [P]   [P]   [   ]
                                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
THREE FAILURES MUST OCCUR BEFORE HELIUM WILL BE INJECTED INTO THE
LH2 MANIFOLD. NO EFFECT PRE-MECO. FAILURE OF RELIEF SYSTEM
(FOUR FAILURES TOTAL) DURING ON-ORBIT OPERATIONS CAN CAUSE
MANIFOLD OVERPRESSURIZATION AND RUPTURE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-903X   BASELINE [   ]
NASA FMEA #:   0251-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 903
ITEM: PNEUMATIC HELIUM SUPPLY RELIEF VALVE (RV4)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/   ]   [   ]   [   ]   [   ]   [   ]
                                              (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-904X   BASELINE [   ]
NASA FMEA #:   0247-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 904
ITEM: LH2 FEED MANIFOLD RTLS REPRESSURIZTION ORIFICE
(RP9)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[2 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/15/88   NASA DATA:
ASSESSMENT ID: MPS-905X   BASELINE [   ]
NASA FMEA #:   0145-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 905
ITEM: PNEUMATIC HELIUM SUPPLY FILTER (FL5)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                  (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-906X   BASELINE [   ]
NASA FMEA #:   0253-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 906
ITEM: ENGINE HELIUM LINE (CV25,26,36,37,41,42 TO
LV1,2,3,4,5,6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
           CRITICALITY    REDUNDANCY SCREENS         CIL
              FLIGHT                                 ITEM
           HDW/FUNC        A       B       C

    NASA  [ 1 /1  ]     [ NA]   [ NA]   [ NA]     [ X ] *
     IOA  [ 1 /1  ]     [ NA]   [ NA]   [ NA]     [   ]

COMPARE   [   /   ]     [   ]   [   ]   [   ]     [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
           [   /   ]   [   ]   [   ]   [   ]       [   ]
                                                (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-907X   BASELINE [   ]
NASA FMEA #:   0254-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 907
ITEM: ENGINE HELIUM SUPPLY LINE (LV1,2,3,4 TO
PR1,2,3,7,8,9)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88
ASSESSMENT ID: MPS-908X
NASA FMEA #: 0111-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 908
ITEM: ENGINE HELIUM SUPPLY LINE (PR1,2,3,7,8,9 TO CV5,6,7,29,40,45)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-909X   BASELINE [   ]
NASA FMEA #:   0235-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 909
ITEM: ENGINE HELIUM SUPPLY LINE (CV5,6,7,29,40,45 TO
SSME)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

      [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-910X   BASELINE [   ]
NASA FMEA #:   0115-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 910
ITEM: HELIUM INTERCONNECT IN LINE (LV59,61,63 TO
CV27,38,43)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
            CRITICALITY      REDUNDANCY SCREENS          CIL
               FLIGHT                                    ITEM
             HDW/FUNC       A         B         C

      NASA   [ 1 /1  ]    [ NA]     [ NA]     [ NA]     [ X ] *
       IOA   [ 1 /1  ]    [ NA]     [ NA]     [ NA]     [   ]

COMPARE    [   /   ]      [    ]    [    ]    [    ]     [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
            [  /   ]      [    ]    [    ]    [    ]       [    ]
                                                       (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                         ADEQUATE   [   ]
                                       INADEQUATE   [   ]

REMARKS:
HAZARD EXISTS WHEN INTERCONNECT IN VALVES ARE OPEN (MECO TO
MECO+20 SEC). AT ALL OTHER TIMES, THIS FAILURE IS 2/1R.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/16/88   NASA DATA:
ASSESSMENT ID: MPS-911X   BASELINE [   ]
NASA FMEA #:   0116-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 911
ITEM: HELIUM INTERCONNECT OUT LINE (LV60,62,64 TO
CV28,39,44)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                            ADEQUATE   [   ]
                                            INADEQUATE [   ]
REMARKS:
HAZARD EXISTS WHEN INTERCONNECT OUT VALVES ARE OPEN (MECO+20
SEC). WHEN THE VALVES ARE CLOSED, THIS FAILURE IS 2/1R.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-912X
NASA FMEA #:   0704-1

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 912
ITEM: HELIUM METALLIC BOSS SEALS (K SEALS)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

| | CRITICALITY FLIGHT HDW/FUNC | REDUNDANCY SCREENS | | | CIL ITEM |
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA CIL WORKSHEET OF 10-15-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-913X   BASELINE [   ]
NASA FMEA #:   0705-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 913
ITEM: NAFLEX HELIUM TANK SEALS (FOR TK4)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                                 (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-914X   BASELINE [   ]
NASA FMEA #:   0706-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 914
ITEM: COMBINATION HELIUM TANK SEALS (FOR TK6, 8, 10)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

         [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-915X
NASA FMEA #:   0626-8

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 915
ITEM: ENGINE HELIUM SUPPLY PRESSURE TRANSDUCERS (3)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
THERE ARE FOUR PRESSURE TRANSDUCERS THAT ALL SHOULD INDICATE THE
SAME PRESSURE DURING FILL. FAILURE OF ALL FOUR CAN CAUSE T ANK
UNDERFILL AND LOSS OF VEHICLE DURING ASCENT. FAILURE OF
INDICTOR(S) DURING ASCENT WILL HAVE NO EFFECT.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-916X   BASELINE [   ]
NASA FMEA #:   0626-9   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 916
ITEM: PNEUMATIC HELIUM SUPPLY PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                            (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
FOUR PRESSURE TRANSDUCERS (INCLUDES ENGINE TRANSDUCERS) ALL
SHOULD INDICATE THE SAME PRESSURE DURING TANK FILL. FAILURE OF
ALL FOUR CAN CAUSE TANK UNDERFILL AND LOSS OF VEHICLE DURING
ASCENT. FAILURE OF INDICATOR(S) DURING ASCENT WILL HAVE NO
EFFECT.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-917X   BASELINE [   ]
NASA FMEA #:   0626-10   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 917
ITEM: ENGINE HELIUM REGULATOR OUTLET PRESSURE
TRANSDUCERS (6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

            CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
             HDW/FUNC   A   B   C

     NASA [3 /1R]   [P]   [F]   [P]   [X] *
      IOA [3 /1R]   [P]   [F]   [P]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [N]

RECOMMENDATIONS: (If different from NASA)

           [3 /3]   [NA]   [NA]   [NA]   [D]
                                                      (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
FAILURE OF TRANSDUCER WILL HAVE NO EFFECT. NO REDUNDANCY. A
LEAK IS NOT A LOSS OF REDUNDANCY.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88   NASA DATA:
ASSESSMENT ID: MPS-918X   BASELINE [   ]
NASA FMEA #:   0626-11   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 918
ITEM: PNEUMATIC HELIUM REGULATOR OUTLET PRESSURE
TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

           [3 /3]   [NA]   [NA]   [NA]   [D]
                                                           (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
FAILURE OF TRANSDUCER WILL HAVE NO EFFECT. NO REDUNDANCY. A
LEAK IS NOT A LOSS OF REDUNDANCY.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-919X
NASA FMEA #:   0626-12

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 919
ITEM: HELIUM ACCUMULATOR PRESSURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[P]	[F]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[3 /3]   [NA]   [NA]   [NA]   [D]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
TRANSDUCER FAILURE WILL HAVE NO EFFECT. NO REDUNDANCY. A LEAK
IS NOT A LOSS OF REDUNDACY.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-920X
NASA FMEA #:   0627-6

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 920
ITEM: ENGINE HELIUM SUPPLY TEMPERATURE TRANSDUCERS (6)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[P]	[ ] *
IOA	[3 /1R]	[P]	[P]	[P]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
MULTIPLE FAILURE OF TRANSDUCERS MAY ALLOW STRUCTURAL TEMPERATURE
LIMITS TO BE VIOLATED DURING TANK FILL AND CAUSE RUPTURE AND LOSS
OF VEHICLE. FAILURE DURING ASCENT WILL HAVE NO EFFECT.
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-921X   NASA DATA:
NASA FMEA #:   0627-7   BASELINE [   ]
                                                      NEW [X]

SUBSYSTEM: MPS
MDAC ID: 921
ITEM: PNEUMATIC HELIUM SUPPLY TEMPERATURE TRANSDUCER

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

            CRITICALITY   REDUNDANCY SCREENS   CIL
              FLIGHT   ITEM
            HDW/FUNC   A   B   C

     NASA [3 /3]   [NA]   [NA]   [NA]   [   ] *
     IOA   [3 /3]   [NA]   [NA]   [NA]   [   ]

COMPARE   [/   ]   [   ]   [   ]   [   ]   [   ]

RECOMMENDATIONS: (If different from NASA)

          [/   ]   [   ]   [   ]   [   ]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
REF: RI/NASA FMEA/CIL REVIEW MEETING NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-922X
NASA FMEA #:   0409-4

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 922
ITEM: GN2 PURGE DISCONNECT (PD14)

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS			CIL ITEM
		A	B	C	
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [   ]   [   ]   [   ]   [   ]
                                        (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                    ADEQUATE   [   ]
                                    INADEQUATE [   ]

REMARKS:
POSSIBLE OVERPRESSURIZATION AND/OR SHARPNEL DAMAGE.
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-923X   NASA DATA:
NASA FMEA #:   0426-1   BASELINE [   ]
                                        NEW [X]

SUBSYSTEM: MPS
MDAC ID: 923
ITEM: GN2 PURGE LINE

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

```
            CRITICALITY     REDUNDANCY SCREENS        CIL
               FLIGHT                                 ITEM
              HDW/FUNC      A        B        C

     NASA   [ 1 /1  ]     [ NA]    [ NA]    [ NA]     [ X ]  *
     IOA    [ 1 /1  ]     [ NA]    [ NA]    [ NA]     [   ]

COMPARE     [   /   ]     [   ]    [   ]    [   ]     [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
         [   /   ]    [   ]    [   ]    [   ]      [   ]
                                               (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
REF: RI/NASA CIL OF 12-23-87 AND RI/NASA FMEA/CIL REVIEW MEETING
NOTES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 2/17/88
ASSESSMENT ID: MPS-924X
NASA FMEA #:   0901-1

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 924
ITEM: STRUCTURAL ATTACH POINTS

LEAD ANALYST: W.J. MCNICOLL

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[/]	[ ]	[ ]	[ ]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

[/]   [ ]   [ ]   [ ]   [D]
                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [ ]
INADEQUATE [ ]

REMARKS:
NSTS 22206 2.3.1 DOES NOT REQUIRE A FMEA FOR STRUCTURE. DELETE
0901-1.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-1001   BASELINE [   ]
NASA FMEA #:   NA   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 1001
ITEM: GO2 PRESSURE ISOLATION CHECK VALVE (CV18, 19, 20)

LEAD ANALYST: K.A. HOLDEN

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /2R]	[P]	[F]	[P]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [ ]   [ ]   [ ]   [ ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
THIS WORKSHEET SHOULD BE COMBINED WITH MPS-1005, WHICH IS THE
WORST CASE FOR THIS FAILURE MODE. MPS-1005 MATCHES AND AGREES
WITH 0514-1. THE VEHICLE'S ACCELERATION HAS A MUCH LARGER EFFECT
ON THE LO2 NET POSITIVE SUCTION PRESSURE (NPSP) THAN THE
ULLAGE PRESSURE DOES. THEREFORE, NEITHER CAVITATION AT THE LPOT
NOR LOSS OF LO2 IS VALID. HOWEVER, THE LOSS OF GO2 ULLAGE
PRESSURE CAUSES AN OPPOSITE PRESSURE DIFFERENTIAL THAN WHAT THE
LO2 TANK WAS DESIGNED FOR. THIS COULD CAUSE THE LO2 TANK TO
BUCKLE DUE TO AERODYNAMIC LOADS ON A TANK WHICH IS NOT
PRESSURIZED. THERE ARE 3 SUCH CHECK VALVES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-1002   BASELINE [   ]
NASA FMEA #:   0514-2   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 1002
ITEM: GO2 PRESSURE ISOLATION CHECK VALVE (CV18, 19,
20)

LEAD ANALYST: K.A. HOLDEN

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[NA]	[P]	[X] *
IOA	[/NA]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[ ]	[N]	[N]

RECOMMENDATIONS: (If different from NASA)

        [3 /1R]   [P]   [F]   [F]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                        ADEQUATE   [   ]
                                        INADEQUATE [   ]
REMARKS:
THE IOA CRITICALITY FOR AN ABORT WAS ORIGINALLY REPORTED AS A 1/1
DUE TO ULLAGE PRESSURE LOST THROUGH A SHUTDOWN ENGINE. THE MAIN
OXIDIZER VALVE, WHICH IS CLOSED DURING AN ENGINE SHUTDOWN, ADDS 2
LEVELS OF REDUNDANCY TO THIS FAILURE MODE. THE LOSS
OF LO2 ULLAGE PRESSURE COULD CAUSE A PRESSURE DIFFERENTIAL
BETWEEN THE INSIDE AND OUTSIDE OF THE TANK THAT THE TANK WAS NOT
DESIGNED TO HOLD. THE RESULTANT LACK OF PRESSURE IN THE TANK
COULD CAUSE THE TANK TO BUCKLER DUE TO THE ATMOSPHERE FORCES.
NASA INFORMATION IS BASED ON THE NASA/RI CRITICAL ITEMS LIST OF
12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-1003   BASELINE [   ]
NASA FMEA #:   0514-4   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 1003
ITEM: GO2 PRESSURE ISOLATION CHECK VALVE (CV18, 19, 20)

LEAD ANALYST: K.A. HOLDEN

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [/]   [   ]   [   ]   [   ]   [   ]
                                                (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                       ADEQUATE   [   ]
                                       INADEQUATE [   ]
REMARKS:
NASA INFORMATION IS BASED ON THE RI/NASA CRITICAL ITEMS LIST OF
12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88
ASSESSMENT ID: MPS-1004
NASA FMEA #:   0514-3

NASA DATA:
BASELINE [   ]
NEW [X]

SUBSYSTEM: MPS
MDAC ID: 1004
ITEM: GO2 PRESSURE ISOLATION CHECK VALVE (CV18, 19 20)

LEAD ANALYST: K.A. HOLDEN

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[ ]	[ ]	[ ]	[N]

RECOMMENDATIONS: (If different from NASA)

[/   ]   [   ]   [   ]   [   ]   [   ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE   [   ]
INADEQUATE [   ]

REMARKS:
THE HEAT EXCHANGER IN THE SSME IS DESIGNED TO HANDLE O2 AT ABOUT
3700 PSIA. HELIUM LEAKING INTO THE HEAT EXCHANGER AT 20 PSIA
WOULD NOT HAVE ANY SIGNIFICANT EFFECT. THEREFORE, IT IS 3/3.
NASA INFORMATION IS BASED ON NASA FMEA/CIL REVIEW MEETING NOTES
(REF. J. BORCHES).

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-1005   BASELINE [   ]
NASA FMEA #:   0514-1   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 1005
ITEM: GO2 PRESSURE ISOLATION CHECK VALVE (CV18, 19, 20)

LEAD ANALYST: K.A. HOLDEN

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]

RECOMMENDATIONS: (If different from NASA)

        [1 /1]   [NA]   [NA]   [NA]   [   ]
                                                    (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
                                          ADEQUATE   [   ]
                                          INADEQUATE [   ]
REMARKS:
FAILURE OF THE CHECK VALVE TO OPEN WILL ALOOW INCREASING GO2
PRESSURE TO RUPTURE THE HEAT EXCHANGER, POSSIBLY RESULTING IN
ENGINE EXPLOSION. NASA/RI INFORMATION IS TAKEN FROM THE RI/NASA
CRITICAL ITEMS LIST OF 12-23-87.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/20/88   NASA DATA:
ASSESSMENT ID: MPS-1006   BASELINE [   ]
NASA FMEA #:   NA   NEW [X]

SUBSYSTEM: MPS
MDAC ID: 1006
ITEM: GO2 PRESSURE ISOLATION CHECK VALVE (CV18, 19, 20)

LEAD ANALYST: K.A. HOLDEN

ASSESSMENT:

```
              CRITICALITY    REDUNDANCY SCREENS        CIL
                 FLIGHT                                 ITEM
               HDW/FUNC      A       B       C

     NASA   [   /   ]    [   ]   [   ]   [   ]      [   ] *
      IOA   [ 1 /1  ]    [ NA]   [ NA]   [ NA]      [ X ]

COMPARE     [ N /N  ]    [ N ]   [ N ]   [ N ]      [ N ]
```

RECOMMENDATIONS: (If different from NASA)

```
            [ 1 /1  ]    [ NA]   [ NA]   [ NA]        [   ]
                                                   (ADD/DELETE)
```

* CIL RETENTION RATIONALE: (If applicable)
                                      ADEQUATE   [   ]
                                      INADEQUATE [   ]
REMARKS:
THE BURNING OF THIS VALVE COULD CAUSE A HOLE WHICH WOULD ALLOW
HOT GO2 TO ENTER THE AFT COMPARTMENT. THIS WOULD RESULT IN
OVERPRESSURIZATION AND A POSSIBLE FIRE/EXPLOSION.

MCDONNELL DOUGLAS ASTRONAUTICS COMPANY –
ENGINEERING SERVICES
16055 SPACE CENTER BLVD, HOUSTON, TEXAS 77062