INDEPENDENT ORBITER ASSESSMENT

ASSESSMENT OF THE ELECTRICAL POWER DISTRIBUTION AND CONTROL SUBSYSTEM
VOLUME 1 OF 3

26 FEBRUARY 1988
INDEPENDENT ORBITER ASSESSMENT
ASSESSMENT OF THE ELECTRICAL POWER DISTRIBUTION
AND CONTROL SUBSYSTEM

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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 first completed an analysis of the Electrical Power Distribution and Control (EPD&C) 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 the NASA FMEA/CIL baseline with proposed Post 51-L updates included. A resolution of each discrepancy from the comparison is provided through additional analysis as required. This report documents the results of that comparison for the Orbiter EPD&C hardware.

The IOA product for the EPD&C analysis consisted of one thousand six hundred and seventy-one (1671) failure mode analysis "worksheets" that resulted in four hundred and sixty-eight (468) potential critical items being identified. Comparison was made to the proposed NASA Post 51-L baseline (as of 31 December 1987) which consisted of four hundred and thirty-five (435) FMEAs and one hundred and fifty-eight (158) CIL items. Differences between the number of IOA worksheets and NASA FMEAs resulted from different levels of analysis (e.g. grouping components into one FMEA versus a worksheet for each component), failure modes not being identified within the original analysis, and the fact that two different schematic sets were used (NASA used Rockwell International assembly drawings and IOA used the Rockwell International integrated schematics). Figure 1 presents a comparison of the proposed of the proposed Post 51-L NASA baseline, with the IOA recommended baseline.

The issues arose due to differences between the NASA and IOA interpretation of the FMEA/CIL preparation instructions, definitions of screen detectability, and some ignorance of flight procedures on the part of IOA. After comparison, there were no discrepancies found that were not already identified by NASA, and the remaining issues are the result of the differences in the schematics used by the NASA and IOA.
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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-built 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
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.
3.0 SUBSYSTEM DESCRIPTION

3.1 Design and Function

The EPD&C subsystem starts at the outputs of the three fuel cells in the EPG subsystem and ends at the using subsystems. DC power from each fuel cell is routed through two wires to one of three main and one of three essential busses. Each main bus can be tied to either of the other two main busses through power contactors and each essential bus is also connected to the other two main busses through diodes and Remote Power Controllers (RPCs). Nine control busses are connected to the three main busses through diodes and RPCs with each control bus receiving power from two main busses. A control bus can be connected to the remaining main bus when the appropriate circuit breaker is closed. Each one of three Orbital Maneuvering Subsystem/Reaction Control Subsystem (OMS/RCS) DC busses are powered by two of three main busses through RPCs and diodes. Three DC busses to the payload (Payload Cabin, Payload Aux, and Payload Emergency busses) are powered through RPCs and diodes from Main DC busses A and B. Larger payload DC loads are powered through power contactors from Main DC busses B and C and Fuel Cell #3.

AC power is generated by connecting each main DC bus to three of nine single-phase invertors, resulting in three three-phase AC busses. The three AC busses are connected to various loads through circuit breakers. These AC busses are further connected to three RCS/OMS AC busses, three Payload Bay Door (PLBD) AC busses, and three Payload Bay Mechanical (PLBM) AC busses.

3.2 Assemblies Description

The EPD&C hardware performs the functions of distributing, sensing, and controlling DC power and inverting, distributing, sensing, and controlling AC power throughout the Orbiter. The EPD&C subsystem is broken down and described by the following fourteen assembly types:

1. Three (3) Main DC Distribution Assemblies (MDDAs) connect the fuel cell outputs through power contactors to the three main DC busses and through diodes and fuses via Panel R1A1 to the three essential busses. Power contactors on the MDDAs allow tying the main busses together. Bus voltage and current levels can be measured directly on Panel F9A2 meters or observed indirectly via General Purpose Computer (GPC) output display via signal conditioners and Multiplexer/Demultiplexers (MDMs). Main and essential DC bus power is connected through fuses to the other assemblies in the system.
Three (3) Mid Power Control Assemblies (MPCAs) contain RPCs to connect main DC bus power to MMCAs, Payload busses (Cabin, Aux, and Emergency), and to essential busses. There are also RPCs which connect Pre-Flight Test Busses to MDDAs which allow Ground Support Equipment (GSE) control and monitor of fuel cells and main DC bus ties.

Four (4) Mid Motor Control Assemblies (MMCA) contain relays to connect the three PLBM and three PLBD AC busses to the three main AC busses. DC power is also routed to the Payload Bay motors and relays.

Three (3) Aft Power Control Assemblies (APCA-4, APCA-5, and APCA-6) contain RPCs that connect power to the three RCS/OMS DC busses, AMCAs, essential busses, and control GSE power to the MMDAs. GSE power is distributed from these assemblies through power contactors. DC power is also routed through fused connections to the ALCAs and the other three APCA.

Three (3) Aft Power Control Assemblies (APCA-1, APCA-2, and APCA-3) contain RPCs that power Master Event Controllers #1 and #2. Fused DC power to the Payload Bay is routed through these assemblies also.

Three (3) Aft Load Control Assemblies (ALCAs) connect Main DC Bus power to various subsystems. They also contain Hybrid Device Controllers to connect GSE power to the essential busses.

Three (3) Aft Motor Control Assemblies (AMCA) connect Main DC Bus power through diodes to the three RCS/OMS DC busses. They also contain the origin of the RCS/OMS AC busses.

Three (3) Forward Power Control Assemblies (FPCAs) contain the circuitry to connect the three main DC busses to the nine control busses. DC power is provided to the AC inverters through fuses and latching relays, RPCs are used to control DC power to FMCAs and fused DC power is provided to the FLCAs.

Three (3) Forward Load Control Assemblies (FLCAs) contain Hybrid Device Controllers to control the nine AC inverters and to allow GSE control of the same inverters.

Three (3) Forward Motor Control Assemblies (FMCAs) route AC and DC power to various subsystems.

Three (3) AC Generation & Distribution Assemblies (AGDAs) provide control and power circuits to the nine AC inverters. Over/under voltage sensors allow inverters to be monitored and disconnected from the AC Bus system.
12. The Flight Deck Panel Controls and Displays (FDPC&D) perform the switching and certain monitoring functions for the routing of power to all subsystems. These panels include L4, R13, R15, R1, R2, 013, 014, 015, 016, 017, 019, F9, F1, F6, C3, A11, A12, A15, and A6.

13. The Mid Deck Panel Controls and Displays (MDPC&D) perform the switching and monitoring functions for power to the inverters and various subsystems. These panels include M030F, M052J, M013Q, and M073C.

14. The Master Event Controllers #1 and #2, certain channels in the Annunciator Control Assemblies, and Current Sensors are grouped in this last category for convenience.

3.3 Hierarchy

Figure 2 illustrates the hierarchy of the EPD&C hardware and the corresponding subassemblies.
Figure 2 - ELECTRICAL POWER DISTRIBUTION & CONTROL SUBSYSTEM OVERVIEW
4.0 ASSESSMENT RESULTS

The IOA analysis of the EPD&C hardware initially generated one thousand six hundred and seventy-one (1671) failure mode analysis worksheets and identified four hundred and sixty-eight (468) Potential Critical Items (PCIs) before starting the assessment process. In order to facilitate comparison, one hundred and eighty-four (184) additional failure mode analysis worksheets were generated. These analysis results were compared to the proposed NASA Post 51-L baseline of four hundred and thirty-five (435) FMEAs and one hundred and fifty-eight (158) CIL items, as of 31 December 1987. Differences between the number of IOA worksheets and NASA FMEAs resulted from different levels of analysis (e.g. grouping components into one FMEA versus a worksheet for each component), failure modes not being identified within the original analysis, and that two different schematic sets were used (NASA used Rockwell International assembly drawings and IOA used the Rockwell International Integrated Schematics).

Table I presents a summary of the quantity of NASA FMEAs assessed, versus the recommended IOA baseline, and any issues identified. The unmapped IOA column is the raw number of IOA failure modes. The mapped IOA column is the number of IOA failure modes after they have been mapped onto the NASA FMEAs. The issues column is the IOA failure modes that were unable to be mapped onto NASA FMEAs.

Table II presents a summary of the quantity of NASA CIL items assessed, versus the recommended IOA baseline, and any issues identified.

Tables III and IV present a summary of the IOA recommended failure criticalities and critical items for the Post 51-L FMEA baseline, respectively. Further discussion of each of these subdivisions and the applicable failure modes and critical items is provided in subsequent paragraphs.

Table V presents the scheme for assigning IOA assessment and analysis worksheet numbers.

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**NOTES:**
1. These two subsystems share three (3) FMEAs/CILs.
2. NASA deleted one (1) FMEA that IOA had not.
3. This subsystem has two (2) FMEAs/CILs that NASA covered in a different subsystem (05-6EB).
TABLE III  Summary of IOA Recommended Failure Criticalities

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TABLE IV  Summary of IOA Recommended Critical Items

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4.1 Assessment Results - Main DC Distribution Assemblies

The IOA analysis of the Main DC Distribution Assemblies generated one hundred and ninety-nine (199) failure mode worksheets and identified one hundred and six (106) Potential Critical Items (PCIs) before starting the assessment. During the assessment, an additional thirteen (13) failure mode worksheets were generated. The two hundred and twelve (212) IOA worksheets map into fifty-seven (57) NASA FMEAs of which twenty-seven (27) are CILs. Of the NASA FMEAs, three (3) are criticality 1/1, thirteen (13) are criticality 2/1R, one (1) is criticality 2/2, twenty-five (25) are criticality 3/1R, and fifteen (15) are criticality 3/3. IOA has four (4) worksheets, all criticality 3/3, that do not map into NASA FMEAs. However, these components are test points on the assemblies and in the current configuration are non-critical. IOA recommends no action on them until they are actually used in a flight circuit. Three (3) NASA FMEA/CILs (05-6-2008A-1, 05-6-2008B-1, and 05-6-2008C-1) contain components that are also on the Aft Power Control Assemblies as noted in Tables I and II. IOA has one (1) additional worksheet that maps into a FMEA that NASA deleted. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.2 Assessment Results - Mid Power Control Assemblies

The IOA analysis of the Mid Power Control Assemblies generated one hundred and fifty-nine (159) failure mode worksheets and identified twenty-one (21) PCIs before starting the assessment. During the assessment, an additional thirteen (13) failure mode worksheets were generated. The one hundred and seventy-two (172) IOA worksheets map into forty-four (44) NASA FMEAs of which six (6) are CILs. Of the NASA FMEAs, three (3) are criticality 2/1R, seventeen (17) are criticality 3/1R, three (3) are criticality 3/2R, and twenty-one (21) are criticality 3/3. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.
4.3 Assessment Results - Mid Motor Control Assemblies

The IOA analysis of the Mid Motor Control Assemblies generated fifty-two (52) failure mode worksheets and identified forty (40) PCIs before starting the assessment. During the assessment, an additional twenty (20) failure mode worksheets were generated. The seventy-two (72) IOA worksheets map into twenty-eight (28) NASA FMEAs of which sixteen (16) are CILs. Of the NASA FMEAs, fifteen (15) are criticality 2/1R, eight (8) are criticality 3/1R, and five (5) are criticality 3/3. Twenty-four (24) of the original IOA analysis worksheets map into two (2) NASA FMEA/CILs (05-6EB-2004-1, and -2) that NASA covers in the Payload Bay Doors/EPD&C Subsystem as noted in Tables I and II. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.4 Assessment Results - Aft Power Control Assemblies 4, 5, & 6

The IOA analysis of the Aft Power Control Assemblies 4, 5, and 6 generated eighty (80) failure mode worksheets and identified twenty-one (21) PCIs before starting the assessment. During the assessment, an additional eight (8) failure mode worksheets were generated. The eighty-eight (88) IOA worksheets map into thirty (30) NASA FMEAs of which twelve (12) are CILs. Of the NASA FMEAs, one (1) is identified as criticality 1/1, two (2) are criticality 2/1R, thirteen (13) are criticality 3/1R, and fourteen (14) are criticality 3/3. Three (3) NASA FMEA/CILs (05-6-2008A-1, 05-6-2008B-1, and 05-6-2008C-1) contain components that are also on the Main DC Distribution Assemblies as noted in Tables I and II. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.5 Assessment Results - Aft Power Control Assemblies 1, 2, & 3

The IOA analysis of the Aft Power Control Assemblies 1, 2, and 3 generated seventy-four (74) failure mode worksheets and identified twenty-six (26) PCIs before starting the assessment. During the assessment, an additional twelve (12) failure mode worksheets were generated. The eighty-six (86) IOA worksheets map into sixteen (16) NASA FMEAs of which five (5) are CILs. Of the NASA FMEAs, two (2) are criticality 2/1R, six (6) are criticality 3/1R, two (2) are criticality 3/2R, and six (6) are criticality 3/3. The IOA has eight (8) criticality 3/1R non-PCI and sixteen (16) criticality 3/3 worksheets that do not map into NASA FMEAs. The NASA EPD&C Subsystem Manager was not sure whether these components were already reevaluated. The discrepancy is the result of NASA using the Rockwell International assembly drawings and the IOA using the Rockwell International integrated schematics. IOA recommends that these components be added to the FMEA/CIL process, unless they are already included in the Solid Rocket Booster FMEAs reevaluation.
4.6 Assessment Results – Aft Load Control Assemblies

The IOA analysis of the Aft Load Control Assemblies generated thirty-nine (39) failure mode worksheets and identified fourteen (14) PCIs before starting the assessment. During the assessment, an additional four (4) failure mode worksheets were generated. The forty-three (43) IOA worksheets map into twelve (12) NASA FMEAs of which six (6) are CILs. Of the NASA FMEAs, two (2) are criticality 1/1, one (1) is criticality 2/1R, eight (8) are criticality 3/1R, and one (1) is criticality 3/3. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.7 Assessment Results – Aft Motor Control Assemblies

The IOA analysis of the Aft Motor Control Assemblies generated twelve (12) failure mode worksheets and identified twelve (12) PCIs before starting the assessment. During the assessment, an additional nine (9) failure mode worksheets were generated. The twenty-one (21) IOA worksheets map into six (6) NASA FMEAs of which three (3) are CILs. Of the NASA FMEAs, three (3) are criticality 3/1R and three are criticality 3/3. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.8 Assessment Results – Forward Power Control Assemblies

The IOA analysis of the Forward Power Control Assemblies generated two hundred and one (201) failure mode worksheets and identified fifty-seven (57) PCIs before starting the assessment. During the assessment, an additional nineteen (19) failure mode worksheets were generated. The two hundred and twenty (220) IOA worksheets map into twenty-four (24) NASA FMEAs of which seven (7) are CILs. Of the NASA FMEAs, one (1) is criticality 1/1, three (3) are criticality 2/1R, eight (8) are criticality 3/1R, and twelve (12) are criticality 3/3. The IOA has six (6) criticality 3/3 worksheets that do not map into NASA FMEAs. However, these components are test points on the assemblies and in the current configuration are non-critical. IOA recommends no action on them until they are actually used in a flight circuit. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.9 Assessment Results – Forward Load Control Assemblies

The IOA analysis of the Forward Load Control Assemblies generated two hundred and ten (210) failure mode worksheets and identified nine (9) PCIs before starting the assessment. During the assessment, two (2) additional failure mode worksheets were generated. The two hundred and twelve (212) IOA worksheets map into thirty-two (32) NASA FMEAs of which seven (7) are CILs. Of the NASA FMEAs, one (1) is criticality 1/1, one (1) is criticality 2/1R, fourteen (14) are criticality 3/1R, and sixteen (16) are criticality 3/3. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.
4.10 Assessment Results - Forward Motor Control Assemblies

The IOA analysis of the Forward Motor Control Assemblies did not generate any failure mode worksheets and did not identify any PCIs before starting the assessment. During the assessment, three (3) failure mode worksheets were generated which map into three (3) NASA FMEAs of which none were CILs. The FMEAs are all criticality 3/3. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.11 Assessment Results - AC Generation & Distribution Assemblies

The IOA analysis of the AC Generation and Distribution Assemblies generated one hundred and ninety-five (195) failure mode worksheets and identified eighteen (18) PCIs before starting the assessment. During the assessment, an additional eleven (11) failure mode worksheets were generated. The two hundred and six (206) IOA worksheets map into twenty-three (23) NASA FMEAs of which four (4) are CILs. Of the NASA FMEAs, three (3) are criticality 2/1R, ten (10) are criticality 3/1R, and ten (10) are criticality 3/3. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.12 Assessment Results - Flight Deck Panel Controls & Displays

The IOA analysis of the Flight Deck Panel Controls and Displays generated two hundred and ninety-eight (298) failure mode worksheets and identified ninety-two (92) PCIs before starting the assessment. During the assessment, an additional forty-six (46) failure mode worksheets were generated. The three hundred and forty-four (344) IOA worksheets map into one hundred and nine (109) NASA FMEAs of which thirty-seven (37) are CILs. Of the NASA FMEAs, three (3) are criticality 1/1, twenty-three (23) are criticality 2/1R, thirty-eight (38) are criticality 3/1R, two (2) are criticality 2/2, four (4) are criticality 3/2R, and thirty-seven (37) are criticality 3/3. Two (2) NASA FMEAs (05-6-2237-3 and 05-6-2238-3), criticality 3/1R non-CIL, were not assessed by the IOA because the FMEA data were not received at the time of this report. IOA expects to agree with NASA on these FMEAs. IOA has fourteen (14) worksheets that do not map into the NASA FMEAs. They are all criticality 3/3 and may be included in another subsystem, perhaps Displays and Controls. IOA recommends that these components be added to the FMEA/CIL process, if they are not already included elsewhere.
4.13 Assessment Results - Mid Deck Panel Controls & Displays

The IOA analysis of the Mid Deck Panel Controls and Displays generated one hundred and twenty-nine (129) failure mode worksheets and identified forty-eight PCIs before starting the assessment. During the assessment, an additional seventeen (17) failure mode worksheets were generated. The one hundred and forty-six (146) IOA worksheets map into forty-four (44) NASA FMEAs of which twenty-four (24) are CILs. Of the NASA FMEAs, sixteen (16) are criticality 2/1R, eight (8) are criticality 3/1R, one (1) is criticality 3/2R, and nineteen (19) are criticality 3/3. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.14 Assessment Results - MECs, ACAs, and Current Sensors

The IOA analysis of the MECs, ACAs, and Current Sensors generated twenty-three (23) failure mode worksheets and identified four (4) PCIs before starting the assessment. During the assessment, seven additional failure mode worksheets were generated. The thirty (30) IOA worksheets map into twelve (12) NASA FMEAs of which nine (9) are CILs. Of the NASA FMEAs, one (1) is criticality 1/1, seven (7) are criticality 2/1R, one (1) is criticality 3/1R, one (1) is criticality 3/2R, and two (2) are criticality 3/3. The IOA has no issues with the NASA FMEA/CIL reevaluation for these assemblies.

4.15 Assessment Results - Why The IOA and The NASA Agree

The IOA has zero (0) real issues with the NASA FMEA/CIL reevaluation for the following reasons:

A. The IOA analyst was unable to obtaining sufficient data on Crew and Flight procedures. The specific areas appear in Appendix F in the resolution codes.

B. The NSTS 22206 document was revised three or four times during the analysis and assessment process and the interpretations of it changed during the process. Initially, the IOA analyst and the NASA Subsystem Manager had differing views on the "B" screen detectability issue. The IOA analyst finally agreed with the NASA argument. Many FMEAs were upgraded to CIL status due to the interpretation of the "failures outside the subsystem" rule. The application of this rule was difficult in the EPD&C subsystem because it interfaces with every system on the vehicle (e.g. where does EPD&C stop and another system begin).

C. The IOA analyst originally did not believe a power bus (the wire or copper strip) could be lost with one failure. A discussion with a Rockwell engineer convinced him otherwise.
5.0 REFERENCES

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


2. VS70-948102 Integrated System Schematic - Solid Rocket Booster Subsystem, Revision 14, 26 September 1985.


10. NSTS 22206, Instructions for Preparation of FMEA and CIL, 10 October 1986.

APPENDIX A
ACRONYMS

AC - Alternating Current
ACA - Annunciator Control Assembly
AOA - Abort Once Around
APCA - Aft Power
ATO - Abort To Orbit
CIL - Critical Items List
CRIT - Criticality
C&W - Caution and Warning System
DC - Direct Current
ECLSS - Environmental Control and Life Support System
EPD&C - Electrical Power Distribution and Control
EPG - Electrical Power Generation
FCP - Fuel Cell Powerplant
FC - Fuel Cell
FMEA - Failure Modes and Effects Analysis
FSSR - Flight System Software Requirement
GAS - Get Away Special
GPC - General Purpose Computer
GSE - Ground Support Equipment
HDC - Hybrid Driver Controller
Hz - Hertz (cycles per second)
IOA - Independent Orbiter Assessment
MEC - Master Events Controller
MDAC - McDonnell Douglas Astronautics Company
MDDA - Main DC Distribution Assembly
MDM - Multiplexer/Demultiplexer
MDDC - Main DC Distribution Assembly
MMCA - Mid Motor Control Assembly
MPCA - Mid Power Control Assembly
NASA - National Aeronautics and Space Administration
NA - Not Applicable
NSTS - National Space Transportation System
OF - Operational Forward
OMRSD - Operational Maintenance Requirements and Specifications Document
PCA - Power Control Assembly
PCI - Potential Critical Item
PLS - Primary Landing Site
PSA - Power Section Assembly
PRCB - Program Requirements Control Board
PRSRS - Power Reactant Storage and Distribution System
RI - Rockwell International
RCS - Reactant Control Subsystem
RPC - Remote Power Controller
RTLS - Return To Landing Site
STS - Space Transportation System
TAL - Transatlantic Abort Landing
TCS - Thermal Control Subsystem
WRS - Water Removal Subsystem
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 NSTS 22206, Instructions For Preparation of FMEA/CIL, October 1986, were used with the following amplifications and additions.

INTACT ABORT DEFINITIONS:

RTLS - begins at transition to OPS 6 and ends at transition to OPS 9, post-flight

TAL - begins at declaration of the abort and ends at transition to OPS 9, post-flight

AOA - begins at declaration of the abort and ends at transition to OPS 9, post-flight

ATO - begins at declaration of the abort and ends at transition to OPS 9, post-flight

CREDIBLE (CAUSE) - 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

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

EARLY MISSION TERMINATION - termination of onorbit phase prior to planned end of mission

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

HIGHEST CRITICALITY - the highest functional criticality determined in the phase-by-phase analysis

MAJOR MODE (MM) - major sub-mode of software operational sequence (OPS)

MC - Memory Configuration of Primary Avionics Software System (PASS)

MISSION - 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

DEORBbit 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 NSTS 22206, Instructions for Preparation of FMEA/CIL, 10 October 1986, 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.
B.3 EPD&C-Specific Ground Rules and Assumptions

1. The failure modes of a resistor shorting (e.g. little or zero resistance) and shorting to ground are not considered for all resistors in this analysis.

   RATIONALE: A shorted resistor will still conduct current to the connected device. All Orbiter electrical components in this subsystem have built-in over-current protection and will continue to operate. A resistor shorting to ground has the same effect as a resistor opening, that is no current will be conducted to the rest of the circuit.

2. The failure modes of most switches, relays, power contactors, hybrid device controllers and remote power controllers are either a) fails open or off or b) fails closed or on. The failure modes a) fails to transfer or b) inadvertent transfer are specified only when the controlled subsystem functions would be adversely effected and specifically cause a higher criticality rating.

   RATIONALE: Criticalities are assigned based on hardware and functional effects. The major percentage of the above components are doubly or triply, redundant in hardware and function. The functional failure of a component has more weight in determining its criticality than the hardware failure. If a switch fails to transfer or inadvertently transfers, it is either failed on and closed or failed off and open.

3. The assumption stated in 22206 that all other subsystems are operational within specifications is not used in this analysis where one or more failures in these subsystems would raise the criticality of the component analyzed.
RATIONALE: Several subsystems in the Orbiter have never been or are not planned to be used in the near future during an actual flight. Examples include but are not limited to, the BFS, fuel cell shutdown and restart, DC bus ties, and RMS jettison. Criticalities are assigned to the components which supply and control power to these functions as if they are required.

4. All components directly related to fuel cell operation are assigned criticalities based on only one fuel cell failing.

RATIONALE: The EPD&C/EPG analysis was conducted under the assumption that two fuel cells had already failed. Therefore, the highest criticalities on fuel cell operations have already been assigned.
APPENDIX C
DETAILED ASSESSMENT

This section contains the IOA assessment worksheets generated during the assessment of this subsystem. The information on these worksheets facilitates the comparison of the NASA FMEA/CIL (Pre and Post 51-L) to the IOA detailed analysis worksheets included 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: 12/07/87
ASSESSMENT ID: EPD&C-5000
NASA FMEA #: 05-6-2389-4
SUBSYSTEM: EPD&C
MDAC ID: 5000
ITEM: RPC, 7.5A (GSE MAIN A OFF)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-2
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5001
NASA FMEA #: 05-6-2389-3

SUBSYSTEM: EPD&C
MDAC ID: 5001
ITEM: RPC, 7.5A (GSE MAIN A OFF)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

REMARKS:

REPORT DATE 02/23/88 C-3
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5002
NASA FMEA #: 05-6-2389-2

SUBSYSTEM: EPD&C
MDAC ID: 5002
ITEM: RPC, 7.5A (GSE MAIN A ON)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88 C-4
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5003
NASA FMEA #: 05-6-2389-1

SUBSYSTEM: EPD&C
MDAC ID: 5003
ITEM: RPC, 7.5A (GSE MAIN A ON)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-5
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5004
NASA FMEA #: 05-6-2048-1

SUBSYSTEM: EPD&C
MDAC ID: 5004
ITEM: SWITCH, MOTORIZED (GSE PWR CONTROL)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-6
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5005
NASA FMEA #: 05-6-2048-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5005
ITEM: SWITCH, MOTORIZED (GSE PWR CONTROL)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88 C-7
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5006
NASA FMEA #: 05-6-2350-1

SUBSYSTEM: EPD&C
MDAC ID: 5006
ITEM: RESISTOR, 1.2K (TO GSE PWR CONT)

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5007
NASA FMEA #: 05-6-2008A-1

SUBSYSTEM: EPD&C
MDAC ID: 5007
ITEM: FUSE, 200A TO MAIN DC DIST ASSY 1

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH THE NASA REEVALUATION AS NASA AGREES THAT THIS FAILURE IS 1R2 FOR INTACT ABORT.

REPORT DATE 02/23/88 C-9
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5008
NASA FMEA #: 05-6-2008A-1

SUBSYSTEM: EPD&C
MDAC ID: 5008
ITEM: FUSE, 200A TO MAIN DC DIST ASSY 1

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH THE NASA REEVALUATION AS NASA AGREES THAT THIS FAILURE IS 1R2 FOR INTACT ABORT.

REPORT DATE 02/23/88 C-10
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5009
NASA FMEA #: 05-6-2257-1
NASA DATA:
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NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5009
ITEM: FUSE, 3A TO GSE MONITOR

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

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REMARKS:

REPORT DATE 02/23/88  C-11
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5010
NASA FMEA #: 05-6-2354-1
SUBSYSTEM: EPD&C
MDAC ID: 5010
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL Retention Rationale: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-12
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5011
NASA FMEA #: 05-6-2354-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5011
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

| CRITICALITY | REDUNDANCY SCREENS | CIL |
| HDW/FUNC | A | B | C |
|------------|-------------------|----|
| NASA | [ 3/3 ] | [ ] | [ ] | [ ] | [ ] | * |
| IOA | [ 3/3 ] | [ ] | [ ] | [ ] | [ ] |
| COMPARE | [ / ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-13
**APPENDIX C
ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/06/87
**ASSESSMENT ID:** EPD&C-5012
**NASA FMEA #:** 05-6-2342-1

**NASA DATA:**

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]
Inadequate [ ]

**REMARKS:**

**REPORT DATE 02/23/88 C-14**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5013
NASA FMEA #: 05-6-2342-1

NASA DATA:
BASELINE [   ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5013
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-15
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5014
NASA FMEA #: 05-6-2336-1

SUBSYSTEM: EPD&C
MDAC ID: 5014
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-16
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5015
NASA FMEA #: 05-6-2334-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5015
ITEM: RESISTOR, 2K 1/4W (TO C&W)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-17
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5016
NASA FMEA #: 05-6-2334-1
SUBSYSTEM: EPD&C
MDAC ID: 5016
ITEM: RESISTOR, 14K 1/4W (TO C&W)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-18
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5017
NASA FMEA #: 05-6-2008A-1

ASSESSMENT ID: EPD&C
MDAC ID: 5017
ITEM: FUSE, 200A TO APCA-4

LEAD ANALYST: K. SCHMECKPEPER

ASAASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION AS NASA AGREES THAT THIS FAILURE IS 1R2 FOR INTACT ABOJRT.

REPORT DATE 02/23/88 C-19
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5018
NASA FMEA #: 05-6-2008A-1
SUBSYSTEM: EPD&C
MDAC ID: 5018
ITEM: FUSE, 200A TO APCA-4
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION AS NASA AGREES THAT THIS FAILURE IS IR2 FOR INTACT ABORT.

REPORT DATE 02/23/88 C-20
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5019
NASA FMEA #: 05-6-2255-1
SUBSYSTEM: EPD&C
MDAC ID: 5019
ITEM: FUSE, 5A TO MPC-1, PPC-1, APAC-4
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-21
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5020
NASA FMEA #: 05-6-2004-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5020
ITEM: SWITCH, MOTORIZED (DC TIE BUS MAIN A)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-22
### APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/04/87  
**ASSESSMENT ID:** EPD&C-5021  
**NASA FMEA #:** 05-6-2004-2

**SUBSYSTEM:**  
**MDAC ID:** 5021  
**ITEM:** SWITCH, MOTORIZED (DC TIE BUS MAIN A)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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* CIL RETENTION RATIONALE: (If applicable)  
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**REMARKS:**

IOA CONCURS WITH NASA RE-EVALUATION CONCERNING TRANSIENTS AFFECTING THE GPCS DURING DE-ORBIT. HOWEVER BUS TIE IS FLIGHT RULED OUT DURING ASCENT.

**REPORT DATE 02/23/88**  
**C-23**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5022
NASA FMEA #: 05-6-2260-1

SUBSYSTEM: EPD&C
MDAC ID: 5022
ITEM: FUSE, 150A TO DC TIE BUS

LEAD ANALYST: K. SCHMECKPEPER

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

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ]

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-24
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5023
NASA FMEA #: 05-6-2260-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5023
ITEM: FUSE, 150A TO DC TIE BUS

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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| IOA [ 3 /1R ] | [ P ] | [ F ] | [ P ] | [ X ]
| COMPARE [ / ] | [ ] | [ N ] | [ ] | [ N ] |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]
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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-25
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5024
NASA FMEA #: 05-6-2260-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5024
ITEM: FUSE, 150A TO DC TIE BUS

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-26
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5025
NASA FMEA #: 05-6-2003-1

SUBSYSTEM: EPD&C
MDAC ID: 5025
ITEM: SWITCH, MOTORIZED (MAIN DC BUS A F/C PWR)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA THAT THIS FAILURE IS 1/1 FOR RTLS ABORT.

REPORT DATE 02/23/88 C-27
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5026
NASA FMEA #: 05-6-2003-2

SUBSYSTEM: EPD&C
MDAC ID: 5026
ITEM: SWITCH, MOTORIZED (MAIN DC BUS A F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH THE NASA REEVALUATION AS IOA DID NOT INITIALLY CONSIDER THE LOSS OF AN ESSENTIAL BUS AS A SINGLE FAILURE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5027
NASA FMEA #: 05-6-2270-1

SUBSYSTEM: EPD&C
MDAC ID: 5027
ITEM: FUSE, 3A TO DC VOLTOMETER

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-29
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5028
NASA FMEA #: 05-6-2242-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5028
ITEM: FUSE, 20A TO ESS BUS 1BC

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-30
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5029
NASA FMEA #: 05-6-2253-1

SUBSYSTEM: EPD&C
MDAC ID: 5029
ITEM: FUSE, 3A TO DC VOLTMETER

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-31
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5030
NASA FMEA #: 05-6-2345A-1
NASA DATA: BASELINE [ ] NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5030
ITEM: SHUNT, DC AMMETER (TO F/C 1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA THAT THIS FAILURE IS 1/1 FOR RTLS ABORT DUE TO HELIUM BLOWDOWN VALVES FAILURE AND PROBLEMS WITH OMS FUEL DUMP.

REPORT DATE 02/23/88 C-32
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5031
NASA FMEA #: 05-6-2388A-2

SUBSYSTEM: EPD&C
MDAC ID: 5031
ITEM: RPC, 7.5A (DC TIE BUS MAIN A)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-33
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5032
NASA FMEA #: 05-6-2388A-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5032
ITEM: RPC, 7.5A (DC TIE BUS MAIN A)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-34
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5033  
**NASA FMEA #:** 05-6-2388B-2  
**SUBSYSTEM:**  
**ITEM:**  
**LEAD ANALYST:** K. SCHMECKPEPER  

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

**REPORT DATE** 02/23/88  
**C-35**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
NASA DATA: BASELINE
ASSESSMENT ID: EPD&C-5034 NEW [ X ]
NASA FMEA #: 05-6-2388B-1

SUBSYSTEM: EPD&C
MDAC ID: 5034
ITEM: RPC, 7.5A (DC TIE BUS MAIN A)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

CRITICALITY REDUNDANCY SCREENS
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IOA [ 3 /3 ] [ ] [ ] [ ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO THIS FAILURE ALONG WITH INADVERTENT POWER ON THE PREFLIGHT TEST BUS WOULD PREVENT A BUS TIE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5035
NASA FMEA #: 05-6-2387A-2
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: EPD&C
MDAC ID: 5035
ITEM: RPC, 7.5A (MAIN DC BUS A F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-37
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5036
NASA FMEA #: 05-6-2387A-1
SUBSYSTEM: EPD&C
MDAC ID: 5036
ITEM: RPC, 7.5A (MAIN DC BUS A F/C PWR)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5037
NASA FME A #: 05-6-2387B-2

SUBSYSTEM: EPD&C
MDAC ID: 5037
ITEM: RPC, 7.5A (MAIN DC BUS A F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5038
NASA FMEA #: 05-6-2387B-1
NASA ID: EPD&C
MDAC ID: 5038
ITEM: RPC, 7.5A (MAIN DC BUS A F/C PWR)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]

Inadequate [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO THIS FAILURE ALONG WITH INADVERTENT POWER ON THE PREFLIGHT TEST BUS WOULD DISCONNECT A MAIN DC BUS FROM THE FUEL CELL. IF A BUS TIE COULD NOT BE PERFORMED THE BUS WOULD BE LOST.
# APPENDIX C
## ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/04/87  
**ASSESSMENT ID:** EPD&C-5039  
**NASA FMEA #:** 05-6-2207-1

**NASA DATA:**  
- BASELINE [ ]  
- NEW [ x ]

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5039  
**ITEM:** DIODE, ISOLATION 35A

**LEAD ANALYST:** K. SCHMECKPEPER

## ASSESSMENT:

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## RECOMMENDATIONS:

(If different from NASA)

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 *(ADD/DELETE)*

* CIL RETENTION RATIONALE: (If applicable)

- ADEQUATE [ ]
- INADEQUATE [ ]

## REMARKS:

**REPORT DATE 02/23/88** C-41
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5039A
NASA FMEA #: 05-6-2207-3
SUBSYSTEM: EPD&C
MDAC ID: 5039
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

(ADD/DELETE)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-42
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5040
NASA FMEA #: 05-6-2207-2

SUBSYSTEM: EPD&C
MDAC ID: 5040
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-43
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/04/87  
**ASSESSMENT ID:** EPD&C-5041  
**NASA FMEA #:** 05-6-2207-1

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5041  
**ITEM:** DIODE, ISOLATION 35A

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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(If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88**  C-44
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5041A
NASA FMEA #: 05-6-2207-3

SUBSYSTEM: EPD&C
MDAC ID: 5041
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

REMARKS:

REPORT DATE 02/23/88 C-45
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5042
NASA FMEA #: 05-6-2207-2
SUBSYSTEM: EPD&C
MDAC ID: 5042
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)
Adequate [ ]
Inadequate [ ]

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-46
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5043
NASA FMEA #: 05-6-2207-1

SUBSYSTEM: EPD&C
MDAC ID: 5043
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-47
### APPENDIX C
#### ASSESSMENT WORKSHEET

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**NASA DATA:**  
**ASSESSMENT ID:** EPD&C-5043A  
**NASA FMEA #:** 05-6-2207-3  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5043  
**ITEM:** DIODE, ISOLATION 35A  
**LEAD ANALYST:** K. SCHMECKPEPER

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(If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

| ADEQUATE | [ ] |
| INADEQUATE | [ ] |

**REMARKS:**

**REPORT DATE 02/23/88**  
**C-48**
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/19/87  
**ASSESSMENT ID:** EPD&C-5044  
**NASA FMEA #:** 05-6-2207-2

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5044  
**ITEM:** DIODE, ISOLATION 35A

**LEAD ANALYST:** K. SCHMECKPEPER

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* **CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

**REPORT DATE 02/23/88**  
**C-49**
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/19/87  
**NASA DATA:**  
**ASSESSMENT ID:** EPD&C-5045  
**NASA FMEA #:** 05-6-2207-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5045  
**ITEM:** DIODE, ISOLATION 35A  
**LEAD ANALYST:** K. SCHMECKPEPER

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**RECOMMENDATIONS:** (If different from NASA)

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(ADD/DELETE)

* **CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA DUE TO FUEL CELL SAFING CONCERNS.

**REPORT DATE 02/23/88**

C-50
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5045A
NASA FMEA #: 05-6-2207-3
NASDA DATA:
BASELINE [    ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5045
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-51
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5046
NASA FMEA #: 05-6-2207-2
SUBSYSTEM: EPD&C
MDAC ID: 5046
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-52
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5047
NASA FMEA #: 05-6-2212-1

SUBSYSTEM: EPD&C
MDAC ID: 5047
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE A)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5047
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE A)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS OPEN, FAILS CLOSED IN "OFF" POSITION. IOA CONCURS WITH NASA'S REEVALUATION AS THIS IS A STANDBY FUNCTION.

REPORT DATE 02/23/88
## APPENDIX C

### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/05/87  
**ASSESSMENT ID:** EPD&C-5047A  
**NASA FMEA #:** 05-6-2212-2

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5047  
**ITEM:** SWITCH, TOGGLE SPDT (MAIN BUS TIE A)

**LEAD ANALYST:** K. SCHMECKPEPER

### ASSESSMENT:

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**RECOMMENDATIONS:** (If different from NASA)

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(ADD/DELETE)

**CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [X]  
INADEQUATE [ ]

**REMARKS:**

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**REPORT DATE** 02/23/88  
**C-54**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5048
NASA FMEA #: 05-6-2212-3

SUBSYSTEM: EPD&C
MDAC ID: 5048
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE A)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS CLOSED IN "ON" POSITION, SHORTS (CONTACT TO CONTACT). IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-55
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5049
NASA FMEA #: 05-6-2211-1
SUBSYSTEM: EPD&C
MDAC ID: 5049
ITEM: SWITCH, TOGGLE SPDT (FC/MN BUS A)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS TO TRANSFER TO "OFF", SHORTS TO GROUND, FAILS CLOSED IN "ON". IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-56
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5050
NASA FMEA #: 05-6-2211-3
NASA DATA: BASELINE [ ]
NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5050
ITEM: SWITCH, TOGGLE SPDT (FC/MN BUS A)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS CLOSED IN "OFF" POSITION. IOA CONCURS WITH NASA'S REEVALUATION AND AGREES THAT THIS FAILURE IS CRIT 1 DURING INTACT ABOGT.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5051
NASA FMEA #: 05-6-2241-1
SUBSYSTEM: EPD&C
MDAC ID: 5051
ITEM: CIRCUIT BREAKER, 5A THERMAL (MAIN A CONTR)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-58
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5052
NASA FMEA #: 05-6-2241-2

NASA DATA:
BASELINE [  ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5052
ITEM: CIRCUIT BREAKER, 5A THERMAL (MAIN A CONTR)

LEAD ANALYST: K. SCHMECKPEPER

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IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] [ ] [ ]

ADD/DELETE

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-59
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5053
NASA FMEA #: 05-6-2183-1
SUBSYSTEM: EPD&C
MDAC ID: 5053
ITEM: DIODE, ISOLATION 12A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS WITH THE NASA AFTER LEARNING OF THE FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-60
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5054
NASA FMEA #: 05-6-2183-2

SUBSYSTEM: EPD&C
MDAC ID: 5054
ITEM: DIODE, ISOLATION 12A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88  C-61
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5055
NASA FMEA #: 05-6-2184-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5055
ITEM: DIODE, ISOLATION 12A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA AFTER LEARNING OF FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-62
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5056
NASA FMEA #: 05-6-2184-1

SUBSYSTEM: EPD&C
MDAC ID: 5056
ITEM: DIODE, ISOLATION 12A

LEAD ANALYST: K. SCHMECKPEPER

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NEW [ X ]

ASSESSMENT:

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS WITH NASA AFTER FURTHER EXAMINATION OF THE CIRCUIT.
APPENDIX C

ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5057
NASA FMEA #: 05-6-2263-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5057
ITEM: CIRCUIT BREAKER, 5A (MN A CONTR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

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

RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-64
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5058
NASA FMEA #: 05-6-2263-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5058
ITEM: CIRCUIT BREAKER, 5A (MN A CONTR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-65
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 12/07/87  
**NASA DATA:**  
**ASSESSMENT ID:** EPD&C-5059  
**NASA FMEA #:** 05-6-2278-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5059  
**ITEM:** FUSE, 35A  
**LEAD ANALYST:** K. SCHMECKPEPER  

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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

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

**REMARKS:**

**REPORT DATE 02/23/88**  
C-66
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5060
NASA FMEA #: 05-6-2278-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5060
ITEM: FUSE, 35A
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.

REPORT DATE 02/23/88 C-67 C-2
### APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/07/87  
**NASA DATA:** BASELINE [ ]  
**ASSESSMENT ID:** EPD&C-5061  
**NASA FMEA #:** 05-6-2278-1  
**NEW [ X ]**  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5061  
**ITEM:** FUSE, 35A  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:**  
(If different from NASA)

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(ADD/DELETE)

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

**REMARKS:**

IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.

**REPORT DATE 02/23/88 C-68**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87  NASA DATA:
ASSESSMENT ID:  EPD&C-5062  BASELINE [ ]
NASA FMEA #:  05-6-2278-1  NEW [ X ]

SUBSYSTEM:  EPD&C
MDAC ID:  5062
ITEM:  FUSE, 35A

LEAD ANALYST:  K. SCHMECKPEPER

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RECOMMENDATIONS:  (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.

REPORT DATE 02/23/88  C-69
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5063
NASA FMEA #: 05-6-2280-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5063
ITEM: FUSE, 15A TO A6A1 PANEL (FUSE 8) & A14 PANEL (RCS/OMS HTRS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88 C-70
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5064
NASA FMEA #: 05-6-2601-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5064
ITEM: FUSE, 5A TO RESISTORS TO MN A CONT BUS PWR, ESS BUS SOURCE 3AB, ESS BUS SOURCE 2CA

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-71
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
NASA DATA:
ASSESSMENT ID: EPD&C-5065
NASA FMEA #: NEW # UNKNOWN
SUBSYSTEM: EPD&C
MDAC ID: 5065
ITEM: FUSE, 5A TO RMS PWR (FUSE 1), RMS HTRS (RESISTORS) & RJDA MANF DRS (FUSES 9 & 12)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-72
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87  NASA DATA:
ASSESSMENT ID: EPD&C-5066  BASELINE [ ]
NASA FMEA #: 05-6-2181-1  NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5066
ITEM: DIODE, ISOLATION 12A (TO CONT BUS BC1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS.

REPORT DATE 02/23/88  C-73
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5067
NASA FMEA #: 05-6-2181-2

SUBSYSTEM: EPD&C
MDAC ID: 5067
ITEM: DIODE, ISOLATION 12A (TO CONT BUS BC1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-74
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5068
NASA FMEA #: 05-6-2181-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5068
ITEM: DIODE, ISOLATION 12A (TO CONT BUS BC2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS.

REPORT DATE 02/23/88 C-75
### APPENDIX C
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/19/87  
**ASSESSMENT ID:** EPD&C-5069  
**NASA FMEA #:** 05-6-2181-2  
**NASA DATA:**  
- BASELINE [ ]  
- NEW [ X ]  

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5069  
**ITEM:** DIODE, ISOLATION 12A (TO CONT BUS BC2)  

**LEAD ANALYST:** K. SCHMECKPEPER

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)  

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

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**REPORT DATE 02/23/88**  
C-76
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5070
NASA FMEA #: 05-6-2181-1

SUBSYSTEM: EPD&C
MDAC ID: 5070
ITEM: DIODE, ISOLATION 12A (TO CONT BUS BC3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS.

REPORT DATE 02/23/88 C-77
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5071
NASA FMEA #: 05-6-2181-2

SUBSYSTEM: EPD&C
MDAC ID: 5071
ITEM: DIODE, ISOLATION 12A (TO CONT BUS BC3)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-78
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5072
NASA FMEA #: 05-6-2225-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5072
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN A)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-79
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5073  
**NASA FMEA #:** 05-6-2225-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5073  
**ITEM:** SWITCH, TOGGLE (DC UTIL PWR MN A)  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* **CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

**REPORT DATE** 02/23/88  
C-80
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5074
NASA FMEA #: 05-6-2225-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5074
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN A)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-81
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5075  
**NASA FMEA #:** 05-6-2225-1  
**NASA DATA:**  
- **BASELINE:** [   ]
- **NEW:** [ X ]

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5075  
**ITEM:** SWITCH, TOGGLE (DC UTIL PWR MN A)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)  
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* **CIL RETENTION RATIONALE:** (If applicable)  
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**REMARKS:**

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**REPORT DATE 02/23/88**  
**C-82**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5076
NASA FMEA #: 05-6-2263-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5076
ITEM: CIRCUIT BREAKER, 5A (MN C CONTR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-83
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5077
NASA FMEA #: 05-6-2263-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5077
ITEM: CIRCUIT BREAKER, 5A (MN C CONTR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-84
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5078
NASA FMEA #: 05-6-2247-1

SUBSYSTEM: EPD&C
MDAC ID: 5078
ITEM: CIRCUIT BREAKER, 10A (MN A UTIL PWR 019/M052J)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-85
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5079
NASA FMEA #: 05-6-2247-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5079
ITEM: CIRCUIT BREAKER, 10A (MN A UTIL PWR 019/M052J)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] *
IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]
COMPARE [ / ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-86
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5080
NASA FMEA #: 05-6-2261-1
NASA DATA:
BASELINE [
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5080
ITEM: CIRCUIT BREAKER, 10A (CONT BUS BC1, BC2, BC3)

LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AS A CIRCUIT BREAKER "POP" IS NOT READILY DETECTABLE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5081
NASA FMEA #: 05-6-2261-2

SUBSYSTEM: EPD&C
MDAC ID: 5081
ITEM: CIRCUIT BREAKER, 10A (CONT BUS BC1, BC2, BC3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5082
NASA FMEA #: 05-6-2703-1

SUBSYSTEM: EPD&C
MDAC ID: 5082
ITEM: RESISTOR, 1.2K 2W (TO MPCA-1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

CRITICALITY
FLIGHT
HDW/FUNC

REDUNDANCY SCREENS

CIL ITEM

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

IOA [ 2 /1R ] [ P ] [ F ] [ P ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITER THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88 C-89
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5082A
NASA FMEA #: 05-6-2703-2

SUBSYSTEM: EPD&C
MDAC ID: 5082
ITEM: RESISTOR, 1.2K 2W (TO MPCA-1)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-90
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5083
NASA FMEA #: 05-6-2653-2

SUBSYSTEM: EPD&C
MDAC ID: 5083
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN A MID 1)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AS IOA WAS UNAWARE OF THE "PSYCHOTIC GPC" CONCERN.

REPORT DATE 02/23/88 C-91
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5084
NASA FMEA #: 05-6-2653-1
SUBSYSTEM: EPD&C
MDAC ID: 5084
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN A MID 1)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5085
NASA FMEA #: 05-6-2006-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5085
ITEM: FUSE, 150A TO FPCA-1

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-93
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5086
NASA FMEA #: 05-6-2006-1

NASA DATA:

BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5086
ITEM: FUSE, 150A TO FPCA-1
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [   ]

REMARKS:

REPORT DATE 02/23/88 C-94
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5087
NASA FMEA #: 05-6-2006-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5087
ITEM: FUSE, 150A TO FPCA-1

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:

REPORT DATE 02/23/88 C-95
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5088
NASA FMEA #: 05-6-2354-1
NASA ID: EPD&C-5088
SUBSYSTEM: MDAC
MDAC ID: ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-96
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5089
NASA FMEA #: 05-6-2807-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5089
ITEM: RPC, 5A (FMCA-1 PWR CONT)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:

REPORT DATE 02/23/88 C-97
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5090
NASA FMEA #: 05-6-2807-1

SUBSYSTEM: EPD&C
MDAC ID: 5090
ITEM: RPC, 5A (FMCA-1 PWR CONT)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B". GROUND CAN DETERMINE STATE OF RPC VIA OPERATIONAL STATUS MEASUREMENTS.

REPORT DATE 02/23/88 C-98
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5091
NASA FMEA #: 05-6-2006-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5091
ITEM: FUSE, 150A TO MAIN DC DIST ASSY 1

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-99
## APPENDIX C

### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/04/87  
**ASSESSMENT ID:** EPD&C-5092  
**NASA FMEA #:** 05-6-2006-1  
**NASA DATA:** BASELINE [ ] NEW [ X ]

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5092  
**ITEM:** FUSE, 150A TO MAIN DC DIST ASSY 1

**LEAD ANALYST:** K. SCHMECKPEPER

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

**RECOMMENDATIONS:** (If different from NASA)

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

**REMARKS:**

**REPORT DATE 02/23/88 C-100**
APPENDIX C  
ASSESSMENT WORKSHEET

ASSessment Date: 6/04/87  
Assessment ID: EPD&C-5093  
NASA FMEA #: 05-6-2006-1

SubsyStem: EPD&C  
MDAC ID: 5093  
Item: FUSE, 150A TO MAIN DC DIST ASSY 1

Lead Analyst: K. Schmeckpeper

Assessment:

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Recommendations: (If different from NASA)

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(ADD/DELETE)

* CIL retention rationale: (If applicable)

Adequate [ X ]

Inadequate [ ]

Remarks:

Report date 02/23/88 C-101
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87   NASA DATA:
ASSESSMENT ID:  EPD&C-5094   BASELINE [ ]
NASA FMEA #: NOT FOUND   NEW [ ]

SUBSYSTEM:  EPD&C
MDAC ID:  5094
ITEM:  RESISTOR, 5.1K TO TEST POINTS

LEAD ANALYST:  K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS:  (If different from NASA)

[ ] / [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS COMPONENT HAS NO CONNECTION TO FLIGHT HARDWARE OR IS A TEST POINT. THEREFORE NASA DID NOT INCLUDE IT IN THEIR FMEAS. IOA CONCURS.

REPORT DATE 02/23/88   C-102
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5095
NASA FMEA #: 05-6-2351-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5095
ITEM: RESISTOR, 1.8K 1/4W (TO SIG COND OF1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS: 

REPORT DATE 02/23/88  C-103
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5096
NASA FMEA #: 05-6-2294-1
SUBSYSTEM: EPD&C
MDAC ID: 5096
ITEM: FUSE, 35A TO FLCA-1
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA'S EVALUATION BECAUSE THE IOA ANALYST WAS UNAWARE OF THE SINGLE STRING FIRE SUPPRESSION SYSTEM.

REPORT DATE 02/23/88 C-104
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5097
NASA FMEA #: 05-6-2707-1

SUBSYSTEM: EPD&C
MDAC ID: 5097
ITEM: RESISTOR, 1.2K 2W (TO FPCA-1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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IOA [ 2 /1R ] [ P ] [ F ] [ P ] [ X ]
COMPARE [ / ] [ ] [ N ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA OPERATIONAL STATUS MEASUREMENTS.

REPORT DATE 02/23/88  C-105
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5097A
NASA FMEA #: 05-6-2707-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5097
ITEM: RESISTOR, 1.2K 2W (TO FPCA-I)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88  C-106
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5098
NASA FMEA #: 05-6-2657-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5098
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN A FWD 1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS.

REPORT DATE 02/23/88 C-107
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5099
NASA FMEA #: 05-6-2657-2
SUBSYSTEM: EPD&C
MDAC ID: 5099
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN A FWD 1)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-108
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5100
NASA FMEA #: 05-6-2295-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5100
ITEM: FUSE, 150A TO MPCA-1

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT. THIS FUSE IS ACTUALLY 100 AMPS WITH THE CORRESPONDING PART NUMBER. AN ERROR WAS MADE IN THE INTEGRATED SCHEMATICS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5101
NASA FMEA #: 05-6-2354-1

SUBSYSTEM: EPD&C
MDAC ID: 5101
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-110
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5102
NASA FMEA #: 05-6-2803-2
SUBSYSTEM: EPD&C
MDAC ID: 5102
ITEM: RPC, 5A (TO MMCA-I)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA - IOA UNAWARE OF "PSYCHOTIC GPC" PROBLEM.

REPORT DATE 02/23/88 C-111
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5103
NASA FMEA #: 05-6-2803-1
NASA DATA: BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5103
ITEM: RPC, 5A (TO MMCA-1)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-112
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5104
NASA FMEA #: 05-6-2299-1

SUBSYSTEM: EPD&C
MDAC ID: 5104
ITEM: FUSE, 35A TO H2/O2 HTR CONT ASSY #1

LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-113
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

ASSESSMENT DATE: 6/06/87  
NASA DATA: 
ASSESSMENT ID: EPD&C-5105  
NASA FMEA #: 05-6-2299-1  
SUBSYSTEM: EPD&C  
MDAC ID: 5105  
ITEM: FUSE, 50A TO H2/O2 HTR CONT ASSY #3  
LEAD ANALYST: K. SCHMECKPEPER  

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**RECOMMENDATIONS:**  
(If different from NASA)  
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(ADD/DELETE)

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

**REMARKS:**  
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88  
C-114
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5106
NASA FMEA #: 05-6-2010-1

SUBSYSTEM: EPD&C
MDAC ID: 5106
ITEM: FUSE, 150A TO APCA-1

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA THAT SCREEN "B" IS PASS.

REPORT DATE 02/23/88    C-115
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5107
NASA FMEA #: 05-6-2293A-1

SUBSYSTEM: EPD&C
MDAC ID: 5107
ITEM: FUSE, 100A TO ALCA-1

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA REEVALUATION FOR NOMINAL FLIGHT AND WE BOTH AGREE ON CRITICALITY 1/1 FOR RTLS ABORT.

REPORT DATE 02/23/88 C-116
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5108
NASA FMEA #: 05-6-2351-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5108
ITEM: RESISTOR, 1.8K 1/4W (TO SIG COND OA1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-117
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5109
NASA FMEA #: 05-6-2701-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5109
ITEM: RESISTOR, 1.2K 2W (TO APCA-4)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88 C-118
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5109A
NASA FMEA #: 05-6-2701-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5109
ITEM: RESISTOR, 1.2K 2W (TO APCA-4)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-119
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5110
NASA FMEA #: 05-6-2651-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5110
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC M N A AFT 1)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE CREW CAN MONITOR THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88
C-120
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5111
NASA FMEA #: 05-6-2651-2

SUBSYSTEM: EPD&C
MDAC ID: 5111
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN A AFT 1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-121
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5112
NASA FMEA #: 05-6-2801-1

SUBSYSTEM: EPD&C
MDAC ID: 5112
ITEM: RPC, 5A (TO AMCA-I)
LEAD ANALYST: K. SCHMECKPEPER

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IOA [ 2 /1R ] [ P ] [ F ] [ P ] [ X ]
COMPARISON [ / ] [ ] [ N ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE RPC STATE WITH THE MCA OPERATIONAL STATUS MEASUREMENT.

REPORT DATE 02/23/88 C-122

NASA DATA:
BASELINE [ ]
NEW [ X ]

REPORT DATE 02/23/88 C-122
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5113  
**NASA FMEA #:** 05-6-2801-2

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5113  
**ITEM:** RPC, 5A (TO AMCA-1)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:** CRITICALITY REDUNDANCY SCREENS

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88**  
**C-123**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5114
NASA FMEA #: 05-6-2704-1

SUBSYSTEM: EPD&C
MDAC ID: 5114
ITEM: RESISTOR, 1.2K 2W (TO MPCA-1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88 C-124
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5114A
NASA FMEA #: 05-6-2704-2

SUBSYSTEM: EPD&C
MDAC ID: 5114
ITEM: RESISTOR, 1.2K 2W (TO MPCA-1)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [  ]
NEW [ X ]

CRITICALITY
FLIGHT
HDW/FUNC

REDUNDANCY SCREENS
A
B
C

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] *
IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]
COMPARE [ / ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88
C-125
**APPENDIX C**

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**RECOMMENDATIONS:** (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

**REMARKS:**

THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITER THE MOTOR OPERATION TIME.

**REPORT DATE 02/23/88**

C-126
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5116
NASA FMEA #: 05-6-2654-2

SUBSYSTEM: EPD&C
MDAC ID: 5116
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN A MID 3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AS IOA WAS UNAWARE OF THE "PSYCHOTIC GPC" CONCERN.

REPORT DATE 02/23/88 C-127
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5117
NASA FMEA #: 05-6-2804-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5117
ITEM: RPC, 5A (TO MMCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA - IOA UNAWARE OF "PSYCHOTIC GPC" PROBLEM.

REPORT DATE 02/23/88 C-128
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5118
NASA FMEA #: 05-6-2804-1

SUBSYSTEM: EPD&C
MDAC ID: 5118
ITEM: RPC, 5A (TO MMCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-129
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5119
NASA FMEA #: 05-6-2389-4
SUBSYSTEM: EPD&C
MDAC ID: 5119
ITEM: RPC, 7.5A (GSE MAIN B OFF)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-130
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5120
NASA FMEA #: 05-6-2389-3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5120
ITEM: RPC, 7.5A (GSE MAIN B OFF)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-131
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5121
NASA FMEA #: 05-6-2389-2

SUBSYSTEM: EPD&C
MDAC ID: 5121
ITEM: RPC, 7.5A (GSE MAIN B ON)

LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

ITEM

CRITICALITY
FLIGHT
HDW/FUNC

NASA [ 3 /3 ]
IOA [ 3 /3 ]
COMPARE [ / ]

RECOMMENDATIONS: (If different from NASA)

* CIL RETENTION RATIONALE: (If applicable)

REMARKS:

REPORT DATE 02/23/88 C-132
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5122
NASA FMEA #: 05-6-2389-1

SUBSYSTEM: EPD&C
MDAC ID: 5122
ITEM: RPC, 7.5A (GSE MAIN B ON)

LEAD ANALYST: K. SCHMECKPEPER

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| IOA | [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] |
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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-133
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5123
NASA FMEA #: 05-6-2048-1

SUBSYSTEM: EPD&C
MDAC ID: 5123
ITEM: SWITCH, MOTORIZED (GSE PWR CONTROL)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-134
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5124
NASA FMEA #: 05-6-2048-2

SUBSYSTEM: EPD&C
MDAC ID: 5124
ITEM: SWITCH, MOTORIZED (GSE PWR CONTROL)
LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88 C-135
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5125
NASA FMEA #: 05-6-2008B-1
SUBSYSTEM: EPD&C
MDAC ID: 5125
ITEM: FUSE, 200A TO MAIN DC DIST ASSY 2
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
INOA CONCURS WITH THE NASA REEVALUATION FOR THE REASONS LISTED IN THE FMEA/CIL. SCREEN "C" DIFFERENCE WAS A TYPO.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5126
NASA FMEA #: 05-6-2008B-1
NASDA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5126
ITEM: FUSE, 200A TO MAIN DC DIST ASSY 2

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION FOR THE REASONS LISTED IN THE FMEA/CIL. SCREEN "C" DIFFERENCE WAS A TYPO.

REPORT DATE 02/23/88 C-137
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
NASA DATA:
ASSESSMENT ID: EPD&C-5127
NASA FMEA #: 05-6-2257-1
SUBSYSTEM: EPD&C
MDAC ID: 5127
ITEM: FUSE, 3A TO GSE MONITOR
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-138
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5128
NASA FMEA #: 05-6-2350-1

SUBSYSTEM: EPD&C
MDAC ID: 5128
ITEM: RESISTOR, 1.2K (TO GSE PWR CONT)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-139
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5129
NASA FMEA #: 05-6-2354-1

SUBSYSTEM: EPD&C
MDAC ID: 5129
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5130
NASA FMEA #: 05-6-2354-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5130
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS:
(If different from NASA)
[ / ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-141
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5131
NASA FMEA #: 05-6-2336-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5131
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-142
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  NASA DATA:
ASSESSMENT ID: EPD&C-5132  BASELINE [ ]
NASA FMEA #: 05-6-2342-1  NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5132
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF3)

LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-143
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5133
NASA FMEA #: 05-6-2342-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5133
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-144
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5134
NASA FMEA #: 05-6-2334-1
SUBSYSTEM: EPD&C
MDAC ID: 5134
ITEM: RESISTOR, 2K 1/4W (TO C&W)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-145
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  NASA DATA:
ASSESSMENT ID: EPD&C-5135  BASELINE [ ]
NASA FMEA #: 05-6-2334-1  NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5135
ITEM: RESISTOR, 14K 1/4W (TO C&W)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-146
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5136
NASA FMEA #: 05-6-2345B-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5136
ITEM: SHUNT, DC AMMETER (TO F/C 2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA DUE TO A CHANGE IN NSTS 22206 CONCERNING HAZARDS TO POPULATION FROM THE EXTERNAL TANK.

REPORT DATE 02/23/88 C-147
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5137
NASA FMEA #: 05-6-2253-1
SUBSYSTEM: EPD&C
MDAC ID: 5137
ITEM: FUSE, 3A TO DC VOLTOMETER
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-148
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5138
NASA FMEA #: 05-6-2270-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5138
ITEM: FUSE, 3A TO DC VOLTMETER

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

| CRITICALLY REDUNDANCY SCREENS | CIL |
| FLIGHT | A | B | C |
| HDW/FUNC |
| NASA | [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] | * |
| IOA | [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] |
| COMPARE | [ / ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-149
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5139
NASA FMEA #: 05-6-2242-1
SUBSYSTEM: EPD&C
MDAC ID: 5139
ITEM: FUSE, 20A TO ESS BUS 2CA
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88   C-150
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5140
NASA FMEA #: 05-6-2260-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5140
ITEM: FUSE, 200A TO DC TIE BUS

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-151
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  
ASSESSMENT ID: EPD&C-5141  
NASA FMEA #: 05-6-2260-1

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: EPD&C  
MDAC ID: 5141  
ITEM: FUSE, 200A TO DC TIE BUS

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88  C-152
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5142
NASA FMEA #: 05-6-2260-1

SUBSYSTEM: EPD&C
MDAC ID: 5142
ITEM: FUSE, 150A TO DC TIE BUS
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-153
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5143
NASA FMEA #: 05-6-2260-1
SUBSYSTEM: EPD&C
MDAC ID: 5143
ITEM: FUSE, 150A TO DC TIE BUS
LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-154
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5144
NASA FMEA #: 05-6-2260-1
NASA DATA:
BASELINE [   ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5144
ITEM: FUSE, 150A TO DC TIE BUS

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-155
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5145
NASA FMEA #: 05-6-2255-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5145
ITEM: FUSE, 5A TO MPCA-2, FPCA-2, APCA-5

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-156
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5146
NASA FMEA #: 05-6-2008B-1
NASA DATA: BASELINE [ ] NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5146
ITEM: FUSE, 200A TO APCA-5
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION FOR THE REASONS LISTED IN THE FMEA/CIL. SCREEN "C" DIFFERENCE WAS A TYPO.

REPORT DATE 02/23/88 C-157
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5147
NASA FMEA #: 05-6-2008B-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5147
ITEM: FUSE, 200A TO APCA-5

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH THE NASA REEVALUATION FOR THE REASONS LISTED IN THE FMEA/CIL. SCREEN "C" DIFFERENCE WAS A TYPO.

REPORT DATE 02/23/88 C-158
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5148
NASA FMEA #: 05-6-2004-1
ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5148
NASA FMEA #: 05-6-2004-1

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SUBSYSTEM: EPD&C
MDAC ID: 5148
ITEM: SWITCH, MOTORIZED (DC TIE BUS MAIN B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-159
**APPENDIX C**

**ASSESSMENT WORKSHEET**

ASSESSMENT DATE: 6/04/87

ASSESSMENT ID: EPD&C-5149

NASA FMEA #: 05-6-2004-2

**NASA DATA:**

BASELINE [ ]

NEW [ X ]

SUBSYSTEM: EPD&C

MDAC ID: 5149

ITEM: SWITCH, MOTORIZED (DC TIE BUS MAIN B)

LEAD ANALYST: K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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*(ADD/DELETE)*

*CIL RETENTION RATIONALE:* (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA RE-EVALUATION CONCERNING TRANSIENTS AFFECTING THE GPCS DURING DE-ORBIT. HOWEVER BUS TIE IS FLIGHT RULED OUT DURING ASCENT.

**REPORT DATE** 02/23/88  C-160
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5150
NASA FMEA #: 05-6-2003-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5150
ITEM: SWITCH, MOTORIZED (MAIN DC BUS B F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION AS IOA DID NOT INITIALLY CONSIDER THE LOSS OF AN ESSENTIAL BUS AS A SINGLE FAILURE.

REPORT DATE 02/23/88 C-161
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5151
NASA FMEA #: 05-6-2003-1
SUBSYSTEM: EPD&C
MDAC ID: 5151
ITEM: SWITCH, MOTORIZED (MAIN DC BUS B F/C PWR)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA THAT THIS FAILURE IS 1/1 FOR RTLS ABORT.

REPORT DATE 02/23/88 C-162
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5152
NASA FMEA #: 05-6-2003-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5152
ITEM: SWITCH, MOTORIZED (MAIN DC BUS C F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA THAT THIS FAILURE IS 1/1 FOR RTLS ABORT.

REPORT DATE 02/23/88 C-163
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5153
NASA FMEA #: 05-6-2003-2
NASA DATA: BASELINE [ ] NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5153
ITEM: SWITCH, MOTORIZED (MAIN DC BUS C F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION AS IOA DID NOT INITIALLY CONSIDER THE LOSS OF AN ESSENTIAL BUS AS A SINGLE FAILURE.

REPORT DATE 02/23/88 C-164
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5154
NASA FMEA #: 05-6-2004-2
NASA DATA:
BASELINE [ ] NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5154
ITEM: SWITCH, MOTORIZED (DC TIE BUS MAIN C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA RE-EVALUATION CONCERNING TRANSIENTS
AFFECTING THE GPCS DURING DE-ORBIT. HOWEVER BUS TIE IS FLIGHT
RULED OUT DURING ASCENT.

REPORT DATE 02/23/88 C-165
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5155
NASA FMEA #: 05-6-2004-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5155
ITEM: SWITCH, MOTORIZED (DC TIE BUS MAIN C)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-166
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5156
NASA FMEA #: 05-6-2388A-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5156
ITEM: RPC, 7.5A (DC TIE BUS MAIN B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-167
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5157
NASA FMEA #: 05-6-2388A-1
SUBSYSTEM: EPD&C
MDAC ID: 5157
ITEM: RPC, 7.5A (DC TIE BUS MAIN B)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88    C-168
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5158
NASA FMEA #: 05-6-2388B-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5158
ITEM: RPC, 7.5A (DC TIE BUS MAIN B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-169
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5159
NASA FMEA #: 05-6-2388B-1
SUBSYSTEM: EPD&C
MDAC ID: 5159
ITEM: RPC, 7.5A (DC TIE BUS MAIN B)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5159
ITEM: RPC, 7.5A (DC TIE BUS MAIN B)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO THIS FAILURE ALONG WITH INADVERTENT POWER ON THE PREFLIGHT TEST BUS WOULD PREVENT A BUS TIE.

REPORT DATE 02/23/88 C-170
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5160
NASA FMEA #: 05-6-2387A-2

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: EPD&C
MDAC ID: 5160
ITEM: RPC, 7.5A (MAIN DC BUS B F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-171
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5161
NASA FMEA #: 05-6-2387A-1
SUBSYSTEM: EPD&C
MDAC ID: 5161
ITEM: RPC, 7.5A (MAIN DC BUS B F/C PWR)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-172
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87  
ASSESSMENT ID: EPD&C-5162  
NASA FMEA #: 05-6-2387B-2

NASA DATA:
BASELINE [ ]  
NEW [ ]

SUBSYSTEM: EPD&C  
MDAC ID: 5162  
ITEM: RPC, 7.5A (MAIN DC BUS B F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-173
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5163
NASA FMEA #: 05-6-2387B-1
SUBSYSTEM: EPD&C
MDAC ID: 5163
ITEM: RPC, 7.5A (MAIN DC BUS B F/C PWR)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO THIS FAILURE ALONG WITH INADVERTENT POWER ON THE PREFLIGHT TEST BUS WOULD DISCONNECT A MAIN DC BUS FROM THE FUEL CELL. IF A BUS TIE COULD NOT BE PERFORMED THE BUS WOULD BE LOST.

REPORT DATE 02/23/88 C-174
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5164
NASA FMEA #: 05-6-2207-1
NASA DATA:
BASELINE [ ]
NEW [ x ]
SUBSYSTEM: EPD&C
MDAC ID: 5164
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-175
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5164A
NASA FMEA #: 05-6-2207-3
SUBSYSTEM: EPD&C
MDAC ID: 5164
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-176
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5165
NASA FMEA #: 05-6-2207-2

SUBSYSTEM: EPD&C
MDAC ID: 5165
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-177
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5166
NASA FMEA #: 05-6-2207-1
SUBSYSTEM: EPD&C
MDAC ID: 5166
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-178
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5166A
NASA FMEA #: 05-6-2207-3

SUBSYSTEM: EPD&C
MDAC ID: 5166
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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NASA DATA:

RECOMMENDATIONS: (If different from NASA)

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REPORT DATE 02/23/88 C-179
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5167
NASA FMEA #: 05-6-2207-2
SUBSYSTEM: EPD&C
MDAC ID: 5167
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-180
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5168
NASA FMEA #: 05-6-2207-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5168
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-181
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5168A
NASA FMEA #: 05-6-2207-3

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: EPD&C  
MDAC ID: 5168
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS:  (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-182
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5169
NASA FMEA #: 05-6-2207-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5169
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-183
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5170
NASA FMEA #: 05-6-2207-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5170
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88  C-184
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5170A
NASA FMEA #: 05-6-2207-3

SUBSYSTEM: EPD&C
MDAC ID: 5170
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-185
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5171
NASA FMEA #: 05-6-2207-2

SUBSYSTEM: EPD&C
MDAC ID: 5171
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-186
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5172
NASA FMEA #: 05-6-2263-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5172
ITEM: CIRCUIT BREAKER, 5A (MN B CONTR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-187
ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5173
NASA FMEA #: 05-6-2263-2

SUBSYSTEM: EPD&C
MDAC ID: 5173
ITEM: CIRCUIT BREAKER, 5A (MN B CONTR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA) [ / ] [ ] [ ] [ ] [ ] [ ]

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

REMARKS:

REPORT DATE 02/23/88 C-188

NASA DATA:
BASELINE [ ]
NEW [ x ]
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5174
NASA FMEA #: 05-6-2241-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5174
ITEM: CIRCUIT BREAKER, 5A THERMAL (MAIN B CONTR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-189
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5175
NASA FMEA #: 05-6-2241-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5175
ITEM: CIRCUIT BREAKER, 5A THERMAL (MAIN B CONTR)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:

REPORT DATE 02/23/88 C-190
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5176
NASA FMEA #: 05-6-2183-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5176
ITEM: DIODE, ISOLATION 12A
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: *(If different from NASA)*

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*(ADD/DELETE)*

* CIL RETENTION RATIONALE: *(If applicable)*

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS WITH THE NASA AFTER LEARNING OF THE FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-191
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5177
NASA FMEA #: 05-6-2183-2

SUBSYSTEM: EPD&C
MDAC ID: 5177
ITEM: DIODE, ISOLATION 12A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88 C-192
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5178
NASA FMEA #: 05-6-2184-1

SUBSYSTEM: EPD&C
MDAC ID: 5178
ITEM: DIODE, ISOLATION 12A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS WITH NASA AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88  C-193
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/05/87  
**NASA DATA:**   
**ASSESSMENT ID:** EPD&C-5179  
**BASELINE [ ]**  
**NASA FMEA #:** 05-6-2184-2  
**NEW [ X ]**  

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5179  
**ITEM:** DIODE, ISOLATION 12A

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]  
INADEQUATE [ ]

**REMARKS:**  
IOA CONCURS WITH NASA AFTER LEARNING OF FUEL CELL SAFING CONCERNS.

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**REPORT DATE 02/23/88**  
**C-194**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5180
NASA FMEA #: 05-6-2212-1

SUBSYSTEM: EPD&C
MDAC ID: 5180
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS OPEN, FAILS CLOSED IN "OFF" POSITION. IOA CONCURS WITH NASA'S REEVALUATION AS THIS IS A STANDBY FUNCTION.

REPORT DATE 02/23/88 C-195
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5180A
NASA FMEA #: 05-6-2212-2

SUBSYSTEM: EPD&C
MDAC ID: 5180
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE B)
LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ]

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

REMARKS: 

REPORT DATE 02/23/88 C-196
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5181
NASA FMEA #: 05-6-2212-3

SUBSYSTEM: EPD&C
MDAC ID: 5181
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] (ADD/DELETE)

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

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS CLOSED IN "ON" POSITION, SHORTS (CONTACT TO CONTACT). IOA CONCURS WITH NASA'S REEVALUATION.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5182
NASA FMEA #: 05-6-2211-1

SUBSYSTEM: EPD&C
MDAC ID: 5182
ITEM: SWITCH, TOGGLE SPDT (FC/MN BUS B)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS TO TRANSFER TO "OFF", SHORTS TO GROUND, FAILS CLOSED IN "ON". IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5183
NASA FMEA #: 05-6-2211-3

ASSESSMENT ID: EPD&C-5183
NASA FMEA #: 05-6-2211-3

SUBSYSTEM: EPD&C
MDAC ID: 5183
ITEM: SWITCH, TOGGLE SPDT (FC/MN BUS B)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ ]

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] (ADD/DELETE)

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

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS CLOSED IN "OFF" POSITION. IOA CONCURS WITH NASA'S REEVALUATION AND AGREES THAT THIS FAILURE IS CRIT 1 DURING INTACT ABORT.

REPORT DATE 02/23/88 C-199
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
ASSESSMENT ID: EPD&C-5184
NASA FMEA #: 05-6-2228-1
SUBSYSTEM: EPD&C
MDAC ID: 5184
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD AFT MN B)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS TO TRANSFER, FAILS TO OPEN, FAILS TO CLOSE. IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-200
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87  NASA DATA:
ASSESSMENT ID: EPD&C-5184A  BASELINE [ ]
NASA FMEA #: 05-6-2228-3  NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5184
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD AFT MN B)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(RECOMMENDATIONS) (ADD/DELETE)

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

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS COMPONENT. IOA CONCURS WITH NASA'S ANALYSIS.

REPORT DATE 02/23/88  C-201
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
NASA DATA:
ASSESSMENT ID: EPD&C-5185
NASA FMEA #: 05-6-2228-2
SUBSYSTEM: EPD&C
MDAC ID: 5185
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD AFT MN B)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: SHORTS. IOA CONCURS WITH NASA'S REEVALUATION.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5186
NASA FMEA #: 05-6-2392-1
SUBSYSTEM: EPD&C
MDAC ID: 5186
ITEM: RELAY (TO AFT PAYLOAD BUS)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-203
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5187
NASA FMEA #: 05-6-2392-2

SUBSYSTEM: EPD&C
MDAC ID: 5187
ITEM: RELAY (TO AFT PAYLOAD BUS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-204
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5188
NASA FMEA #: 05-6-2288-1

SUBSYSTEM: EPD&C
MDAC ID: 5188
ITEM: FUSE, 80A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-205
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5189
NASA FMEA #: 05-6-2243-1
SUBSYSTEM: EPD&C
MDAC ID: 5189
ITEM: RESISTOR, 5.1K
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-206
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5190
NASA FMEA #: 05-6-2278-1

SUBSYSTEM: EPD&C
MDAC ID: 5190
ITEM: FUSE, 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.

REPORT DATE 02/23/88 C-207
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5191
NASA FMEA #: 05-6-2278-1

SUBSYSTEM: EPD&C
MDAC ID: 5191
ITEM: FUSE, 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.

REPORT DATE 02/23/88 C-208
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5192
NASA FMEA #: NEW # UNKNOWN

SUBSYSTEM: EPD&C
MDAC ID: 5192
ITEM: FUSE, 10A TO RMS PWR & RJDA
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-209
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5193
NASA FMEA #: 05-6-2601-1
SUBSYSTEM: EPD&C
MDAC ID: 5193
ITEM: FUSE, 5A TO RESISTORS TO CONT BUS PWR MN B, ESS Busses 1BC & 3AB
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable) ADEQUATE [ ] INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-210
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5194
NASA FMEA #: 05-6-2280-1
SUBSYSTEM: EPD&C
MDAC ID: 5194
ITEM: FUSE, 15A TO A14 PANEL (RCS/OMS HTRS)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88 C-211
## APPENDIX C
### ASSESSMENT WORKSHEET

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(If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

### REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.

REPORT DATE 02/23/88   C-212
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5196
NASA FMEA #: 05-6-2278-1
SUBSYSTEM: EPD&C
MDAC ID: 5196
ITEM: FUSE, 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.

REPORT DATE 02/23/88  C-213
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5197
NASA FMEA #: 05-6-2247-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5197
ITEM: CIRCUIT BREAKER, 10A (MN B UTIL PWR F1/M013Q)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-214
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5198
NASA FMEA #: 05-6-2247-1

SUBSYSTEM: EPD&C
MDAC ID: 5198
ITEM: CIRCUIT BREAKER, 10A (MN B UTIL PWR F1/M013Q)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-215
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5199
NASA FMEA #: 05-6-2261-1
SUBSYSTEM: EPD&C
MDAC ID: 5199
ITEM: CIRCUIT BREAKER, 10A (CONT BUS CA1, CA2, CA3)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AS A CIRCUIT BREAKER "POP" IS NOT READILY DETECTABLE.

REPORT DATE 02/23/88 C-216
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5200
NASA FMEA #: 05-6-2261-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5200
ITEM: CIRCUIT BREAKER, 10A (CONT BUS CA1, CA2, CA3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-217
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5201
NASA FMEA #: 05-6-2225-1
SUBSYSTEM: EPD&C
MDAC ID: 5201
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN B)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-218
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5202
NASA FMEA #: 05-6-2225-1

SUBSYSTEM: EPD&C
MDAC ID: 5202
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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* CIL RETENTION RATIONALE: (If applicable)
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REMARKS:

REPORT DATE 02/23/88 C-219
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5203
NASA FMEA #: 05-6-2225-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5203
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

REMARKS:

REPORT DATE 02/23/88 C-220
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5204
NASA FMEA #: 05-6-2225-1

SUBSYSTEM: EPD&C
MDAC ID: 5204
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-221
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5205
NASA FMEA #: 05-6-2707-1

SUBSYSTEM: EPD&C
MDAC ID: 5205
ITEM: RESISTOR, 1.2K 2W (TO FPCA-2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
The "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87  ASSESSMENT ID: EPD&C-5205A  NASA FMEA #: 05-6-2707-2
NASA DATA:
BASELINE [ ]  NEW [ X ]
SUBSYSTEM: EPD&C  MDAC ID: 5205  ITEM: RESISTOR, 1.2K 2W (TO FPCA-2)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-223
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5206
NASA FMEA #: 05-6-2657-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5206
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B FWD 2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5207
NASA FMEA #: 05-6-2657-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5207
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B FWD 2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-225
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5208
NASA FMEA #: 05-6-2006-1

SUBSYSTEM: EPD&C
MDAC ID: 5208
ITEM: FUSE, 150A TO FPCA-2

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-226
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5209
NASA FMEA #: 05-6-2006-1

SUBSYSTEM: EPD&C
MDAC ID: 5209
ITEM: FUSE, 150A TO FPCA-2
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-227
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5210
NASA FMEA #: 05-6-2006-1

SUBSYSTEM: EPD&C
MDAC ID: 5210
ITEM: FUSE, 150A TO FPCA-2

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

REPORT DATE 02/23/88 C-228
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5211
NASA FMEA #: 05-6-2354-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5211
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-229
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5212
NASA FMEA #: 05-6-2807-2

SUBSYSTEM: EPD&C
MDAC ID: 5212
ITEM: RPC, 5A (FMCA-2 PWR CONT)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-230
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87  
ASSESSMENT ID: EPD&C-5213  
NASA FMEA #: 05-6-2807-1  

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: EPD&C  
MDAC ID: 5213  
ITEM: RPC, 5A (FMCA-2 PWR CONT)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B". GROUND CAN DETERMINE STATE OF RPC VIA OPERATIONAL STATUS MEASUREMENTS.

REPORT DATE 02/23/88  C-231
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5214
NASA FMEA #: 05-6-2006-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5214
ITEM: FUSE, 150A TO MAIN DC DIST ASSY 2

LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-232
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5215
NASA FMEA #: 05-6-2006-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5215
ITEM: FUSE, 150A TO MAIN DC DIST ASSY 2

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-233
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5216
NASA FMEA #: 05-6-2006-1

SUBSYSTEM: EPD&C
MDAC ID: 5216
ITEM: FUSE, 150A TO MAIN DC DIST ASSY 2
LEAD ANALYST: K. SCHMECKPEPER

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| IOA        | [3 /1R] | [ P ] | [ F ] | [ P ] | [ X ] |

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-234
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5217
NASA FMEA #: 05-6-2294-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5217
ITEM: FUSE, 35A TO FLCA-2

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA AGREES WITH NASA'S EVALUATION BECAUSE THE IOA ANALYST WAS UNAWARE OF THE SINGLE STRING FIRE SUPPRESSION SYSTEM.

REPORT DATE 02/23/88 C-235
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87  
ASSESSMENT ID: EPD&C-5218  
NASA FMEA #: NOT FOUND  
SUBSYSTEM: EPD&C  
MDAC ID: 5218  
ITEM: RESISTOR, 5.1K  
LEAD ANALYST: K. SCHMECKPEPER  

ASSESSMENT:

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| IOA         | [ 3 /3 ] | [ ]  | [ ]  | [ ]  | [ ]    |
| COMPARE     | [ N /N ] | [ ]  | [ ]  | [ ]  | [ ]    |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

REMARKS:

THIS COMPONENT HAS NO CONNECTION TO FLIGHT HARDWARE OR IS A TEST POINT. THEREFORE NASA DID NOT INCLUDE IT IN THEIR FMEAS. IOA CONCURS.

REPORT DATE 02/23/88 C-236
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5219
NASA FMEA #: 05-6-2351-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5219
ITEM: RESISTOR, 1.8K 1/4W (TO SIG COND OF2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-237
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5220
NASA FMEA #: 05-6-2705-1

NASA DATA: BASELINE [ ]
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5220
ITEM: RESISTOR, 1.2K 2W (TO MPCA-2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITORE THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITORE THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88 C-238
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5220A
NASA FMEA #: 05-6-2705-2

SUBSYSTEM: EPD&C
MDAC ID: 5220
ITEM: RESISTOR, 1.2K 2W (TO MPCA-2)
ASSESSMENT: CRITICALITY

NASA DATA:
BASELINE [ ]
NEW [ X ]

NASA FMEA #:
05-6-2705-2

SUBSYSTEM: EPD&C
MDAC ID: 5220
ITEM: RESISTOR, 1.2K 2W (TO MPCA-2)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

CRITICALITY

REDUNDANCY SCREENS

CIL ITEM

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IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]

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

RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-239
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5221
NASA FMEA #: 05-6-2655-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5221
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B MID 1)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITER THE MOTOR OPERATION TIME.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5222
NASA FMEA #: 05-6-2655-2

SUBSYSTEM: EPD&C
MDAC ID: 5222
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B MID 1)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:

REPORT DATE 02/23/88 C-241
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5223
NASA FMEA #: 05-6-2703-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5223
ITEM: RESISTOR, 1.2K 2W (TO MPCA-2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88 C-242
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87  NASA DATA:
ASSESSMENT ID: EPD&C-5223A  BASELINE [ ]
NASA FMEA #: 05-6-2703-2  NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5223
ITEM: RESISTOR, 1.2K 2W (TO MPCA-2)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:

REPORT DATE 02/23/88  C-243
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/08/87

**ASSESSMENT ID:** EPD&C-5224

**NASA ID:** EPD&C-5224

**ITEM:** SWITCH, TOGGLE SPST (MCA LOGIC MN B MID 2)

**LEAD ANALYST:** K. SCHMECKPEPER

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**COMPARE**

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**RECOMMENDATIONS:** (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* **CIL RETENTION RATIONALE:** (If applicable)

**ADEQUATE** [ X ]

**INADEQUATE** [ ]

**REMARKS:**

THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITER THE MOTOR OPERATION TIME.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5225
NASA FMEA #: 05-6-2653-2

SUBSYSTEM: EPD&C
MDAC ID: 5225
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B MID 2)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(* ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AS IOA WAS UNAWARE OF THE "PSYCHOTIC GPC" CONCERN.
### APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/08/87  
**ASSESSMENT ID:** EPD&C-5226  
**NASA FMEA #:** 05-6-2705-1  
**NASA DATA:**  
BASELINE [ ]  
NEW [ X ]

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5226  
**ITEM:** RESISTOR, 1.2K 2W (TO MPCA-2)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**COMPARE [ ] [ ] [ N ] [ ] [ ]**

**RECOMMENDATIONS:**  
(If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

**REMARKS:**

THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.

**REPORT DATE** 02/23/88  
**C-246**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5226A
NASA FMEA #: 05-6-2705-2

SUBSYSTEM: EPD&C
MDAC ID: 5226
ITEM: RESISTOR, 1.2K 2W (TO MPCA-2)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

ITEM:
RESISTOR, 1.2K 2W (TO MPCA-2)

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-247
APPENDIX C
ASSESSMENT WORKSHEET

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| SUBSYSTEM: EPD&C | MDAC ID: 5227 | ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B MID 3) |

| LEAD ANALYST: K. SCHMECKPEPER |

| ASSESSMENT: CRITICALITY REDUNDANCY SCREENS CIL ITEM |
|--------------------|-------------|--------------|
| CRITICALITY FLIGHT HDW/FUNC | A | B | C |
| NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] * |
| IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] |
| COMPARE [ / ] [ ] [ ] [ ] [ ] [ ] |

| RECOMMENDATIONS: (If different from NASA) |
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* CIL RETENTION RATIONALE: (If applicable) [ ] | ADEQUATE [ ] |
| INADEQUATE [ ] |

| REMARKS: |

REPORT DATE 02/23/88 C-248
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5228
NASA FMEA #: 05-6-2655-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5228
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B MID 3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88 C-249
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5229
NASA FMEA #: 05-6-2703-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5229
ITEM: RESISTOR, 1.2K 2W (TO MPCA-2)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:
The "B" SCREEN PASSES because the ground can monitor the MCA operational status measurements and the crew can monitor the motor operation time.

REPORT DATE 02/23/88 C-250
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5229A
NASA FMEA #: 05-6-2703-2

SUBSYSTEM: EPD&C
MDAC ID: 5229
ITEM: RESISTOR, 1.2K 2W (TO MPCA-2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-251
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5230
NASA FMEA #: 05-6-2653-2
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5230
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B MID 4)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AS IOA WAS UNAWARE OF THE "PSYCHOTIC GPC" CONCERN.

REPORT DATE 02/23/88 C-252
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5231
NASA FMEA #: 05-6-2653-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5231
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B MID 4)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88 C-253
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5232
NASA FMEA #: 05-6-2295-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5232
ITEM: FUSE, 100A TO MPCA-2

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5233
NASA FMEA #: 05-6-2354-1

SUBSYSTEM: EPD&C
MDAC ID: 5233
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-255
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5234
NASA FMEA #: 05-6-2805-2
NASA ID: 12/17/87
ASSESSMENT ID: EPD&C-5234
NASA FMEA #: 05-6-2805-2
SUBSYSTEM: EPD&C
MDAC ID: 5234
ITEM: RPC, 5A (TO MMCA-1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-256
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/17/87  
**ASSESSMENT ID:** EPD&C-5235  
**NASA FMEA #:** 05-6-2805-1  
**SUBSYSTEM:**  
**MDAC ID:** 5235  
**ITEM:** RPC, 5A (TO MMCA-1)  
**LEAD ANALYST:** K. SCHMECKPEPER

### ASSESSMENT:

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### RECOMMENDATIONS:  
(If different from NASA)

(ADD/DELETE)

* CIL RETENTION RATIONALE:  
(If applicable)

**ADEQUATE** [X]  
**INADEQUATE** [ ]

**REPORT DATE 02/23/88**  
C-257
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 12/17/87  
**ASSESSMENT ID:** EPD&C-5236  
**NASA FMEA #:** 05-6-2803-2  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5236  
**ITEM:** RPC, 5A (TO MMCA-2)  
**LEAD ANALYST:** K. SCHMECKPEPER

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| IOA          | [ 3 /3 ]  | [ ]   | [ ]   | [ ]   | [ ]    |
| COMPARE      | [ /N ]    | [ N ] | [ N ] | [ N ] | [ N ]  |

**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

- ADEQUATE [ X ]
- INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA - IOA UNAWARE OF "PSYCHOTIC GPC" PROBLEM.

**REPORT DATE 02/23/88**

C-258
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5237
NASA FMEA #: 05-6-2803-1
SUBSYSTEM: EPD&C
MDAC ID: 5237
ITEM: RPC, 5A (TO MMCA-2)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

| ADEQUATE | [ X ] |
| INADEQUATE | [ ] |

REMARKS:

REPORT DATE 02/23/88 C-259
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5238
NASA FMEA #: 05-6-2805-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5238
ITEM: RPC, 5A (TO MMCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-260
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5239
NASA FMEA #: 05-6-2805-2

SUBSYSTEM: EPD&C
MDAC ID: 5239
ITEM: RPC, 5A (TO MMCA-3)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONAL: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-261
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5240
NASA FMEA #: 05-6-2803-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5240
ITEM: RPC, 5A (TO MMCA-4)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA - IOA UNAWARE OF "PSYCHOTIC GPC" PROBLEM.

REPORT DATE 02/23/88 C-262
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87  
ASSESSMENT ID: EPD&C-5241  
NASA FMEA #: 05-6-2803-1  
ASSESSMENT DATE: 12/17/87  
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ASSESSMENT ID: EPD&C-5241  
NASA FMEA #: 05-6-2803-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C  
MDAC ID: 5241  
ITEM: RPC, 5A (TO MMCA-4)  
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MDAC ID: 5241  
ITEM: RPC, 5A (TO MMCA-4)

LEAD ANALYST: K. SCHMECKPEPER  
LEAD ANALYST: K. SCHMECKPEPER  
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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)
Adequate [ X ]
Inadequate [ ]

REMARKS:

REPORT DATE 02/23/88  
C-263
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5242
NASA FMEA #: 05-6-2299-1
SUBSYSTEM: EPD&C
MDAC ID: 5242
ITEM: FUSE, 35A TO H2/O2 HTR CONT ASSY #2
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-264
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5243
NASA FMEA #: 05-6-2299-1

SUBSYSTEM: EPD&C
MDAC ID: 5243
ITEM: Fuse, 50A to H2/O2 HTR CONT ASSY #3

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88   C-265
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5244
NASA FMEA #: 05-6-2299-1

SUBSYSTEM: EPD&C
MDAC ID: 5244
ITEM: FUSE, 50A TO H2/O2 HTR CONT ASSY #4

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B."
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5245
NASA FMEA #: 05-6-2010-1

SUBSYSTEM: EPD&C
MDAC ID: 5245
ITEM: FUSE, 150A TO APCA-2

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA THAT SCREEN "B" IS PASS.

REPORT DATE 02/23/88 C-267
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5246
NASA FMEA #: 05-6-2293B-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5246
ITEM: FUSE, 100A TO ALCA-2

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-268
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5247
NASA FMEA #: 05-6-2351-1

SUBSYSTEM: EPD&C
MDAC ID: 5247
ITEM: RESISTOR, 1.8K 1/4W (TO SIG COND OA2)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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*CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-269
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 12/08/87  
**ASSESSMENT ID:** EPD&C-5248  
**NASA FMEA #:** 05-6-2701-1

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**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* **CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

**REMARKS:**

THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.

**REPORT DATE 02/23/88**

C-270
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5248A
NASA FMEA #: 05-6-2701-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5248
ITEM: RESISTOR, 1.2K 2W (TO APCA-5)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-271
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5249
NASA FMEA #: 05-6-2651-1

NASA DATA: BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5249
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B AFT 2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
Adequate [ X ]
Inadequate [ ]

REMARKS:
The "B" screen passes because the crew can monitor the motor operation time.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5250
NASA FMEA #: 05-6-2651-2
SLUBSYSTEM: EPD&C
MDAC ID: 5250
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B AFT 2)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5250
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN B AFT 2)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] * [ ]
IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]
COMPARE [ / ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-273
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5251
NASA FMEA #: 05-6-2801-1

SUBSYSTEM: EPD&C
MDAC ID: 5251
ITEM: RPC, 5A (TO AMCA-2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] (ADD/DELETE)

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

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE RPC STATE WITH THE MCA OPERATIONAL STATUS MEASUREMENT.

REPORT DATE 02/23/88 C-274
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5252
NASA FMEA #: 05-6-2801-2
SUBSYSTEM: EPD&C
MDAC ID: 5252
ITEM: RPC, 5A (TO AMCA-2)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-275
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5253
NASA FMEA #: 05-6-2333-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5253
ITEM: RESISTOR, 1.2K 2W (TO P/L AUX BUS - MPCA-1)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88   C-276
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/02/87
ASSESSMENT ID: EPD&C-5253A
NASA FMEA #: 05-6-2333-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5253
ITEM: RESISTOR, 1.2K 2W (TO P/L AUX BUS - MPCA-1)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-277
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5254
NASA FMEA #: 05-6-2333-1

SUBSYSTEM: EPD&C
MDAC ID: 5254
ITEM: RESISTOR, 1.2K 2W (TO P/L AUX BUS - MPC-2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

| ADEQUATE | INADEQUATE |

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-278
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/02/87
ASSESSMENT ID: EPD&C-5254A
NASA FMEA #: 05-6-2333-2

SUBSYSTEM: EPD&C
MDAC ID: 5254
ITEM: RESISTOR, 1.2K 2W (TO P/L AUX BUS - MPCA-2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-279
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5255
NASA FMEA #: 05-6-2333-1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5255
ITEM: RESISTOR, 1.2K 2W (TO P/L CABIN BUS - MPCA-2)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-280
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/02/87
ASSESSMENT ID: EPD&C-5255A
NASA FMEA #: 05-6-2333-2
NASA DATA:
BASELINE []
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5255
ITEM: RESISTOR, 1.2K 2W (TO P/L CABIN BUS - MPCA-2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

* CIL RETENTION RATIONALE: (If applicable)

REMARKS:

REPORT DATE 02/23/88 C-281
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5256
NASA FMEA #: 05-6-2333-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5256
ITEM: RESISTOR, 1.2K 2W (TO P/L CABIN BUS - MPCA-1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]
Inadequate [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-282
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/02/87
ASSESSMENT ID: EPD&C-5256A
NASA FMEA #: 05-6-2333-2
ASSESSMENT DATE: 7/02/87
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5256
ITEM: RESISTOR, 1.2K 2W (TO P/L CABIN BUS - MPCA-1)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-283
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5257
NASA FMEA #: 05-6-2234-2
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5257
ITEM: SWITCH, TOGGLE DPDT (PAYLOAD AUX)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS" TO THIS FMEA. IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5258
NASA FMEA #: 05-6-2234-1
SUBSYSTEM: EPD&C
MDAC ID: 5258
ITEM: SWITCH, TOGGLE DPDT (PAYLOAD AUX)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

CRITICALITY

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| IOA      | [ 3 /2R ] | [ P ]  | [ P ]  | [ P ]  | [ ]    |
| COMPARE  | [ N /N ]  | [ N ]  | [ N ]  | [ N ]  | [ N ]  |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-285
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/06/87  
**NASA DATA:**  
**BASELINE [ ]**  
**NEW [ X ]**  

**SUBSYSTEM:** MDAC  
**ID:** EPD&C  
**ITEM:** SWITCH, TOGGLE SPDT (PAYLOAD CABIN)  
**LEAD ANALYST:** K. SCHMECKPEPER  

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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(ADD/DELETE)

* **CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

NASA HAS ADDED THE FAILURE MODE "SHORTS" TO THIS FMEA. IOA CONCURS WITH NASA'S REEVALUATION.

**REPORT DATE 02/23/88 C-286**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5260
NASA FMEA #: 05-6-2233-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5260
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-287
ASSESSMENT DATE: 6/06/87  
ASSESSMENT ID: EPD&C-5261  
NASA FMEA #: 05-6-2326-1  
SUBSYSTEM: EPD&C  
MDAC ID: 5261  
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF4)  
LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5262
NASA FMEA #: 05-6-2326-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5262
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF4)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-289
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5263
NASA FMEA #: 05-6-2326-1

SUBSYSTEM: EPD&C
MDAC ID: 5263
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF4)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-290
**APPENDIX C**
**ASSESSMENT WORKSHEET**

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5264
NASA FMEA #: 05-6-2394-1

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SUBSYSTEM: EPD&C
MDAC ID: 5264
ITEM: RPC, 20A TO P/L AUX & P/L EMERGENCY BUSSES

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-291
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5265  
**NASA FMEA #:** 05-6-2394-2

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5265  
**ITEM:** RPC, 20A TO P/L AUX & P/L EMERGENCY BUSSES

**LEAD ANALYST:** K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

**REMARKS:**

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**REPORT DATE 02/23/88**  
**C-292**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5266
NASA FMEA #: 05-6-2395-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5266
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-293
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5267
NASA FMEA #: 05-6-2395-1

NASA DATA:
BASELINE [ ]
NEW [ x ]

SUBSYSTEM: EPD&C
MDAC ID: 5267
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-294
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87                      NASA DATA:
ASSESSMENT ID: EPD&C-5268                       BASELINE [ ]
NASA FMEA #: 05-6-2395-2                        NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5268
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88          C-295
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5269
NASA FMEA #: 05-6-2395-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5269
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-296
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5270  
**NASA FMEA #:** 05-6-2395-2  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5270  
**ITEM:** RPC, 15A TO PAYLOAD CABIN  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88 C-297**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5271
NASA FMEA #: 05-6-2395-1
SUBSYSTEM: EPD&C
MDAC ID: 5271
ITEM: RPC, 15A TO PAYLOAD CABIN
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-298
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5272
NASA FMEA #: 05-6-2322-1

SUBSYSTEM: EPD&C
MDAC ID: 5272
ITEM: RESISTOR, 1.8K (TO MDM OF1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-299
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5273
NASA FMEA #: 05-6-2321-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5273
ITEM: RESISTOR, 2.2K (TO MDM OF1)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88  C-300
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5274
NASA FMEA #: 05-6-2205-1

SUBSYSTEM: EPD&C
MDAC ID: 5274
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-301
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5275
NASA FMEA #: 05-6-2205-2

SUBSYSTEM: EPD&C
MDAC ID: 5275
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-302
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5276
NASA FMEA #: 05-6-2205-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5276
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-303
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5277
NASA FMEA #: 05-6-2205-1

ASSESSMENT ID: EPD&C
MDAC ID: 5277
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM:
MDAC ID:
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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-304
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5278
NASA FMEA #: 05-6-2205-1

SUBSYSTEM: EPD&C
MDAC ID: 5278
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-305
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5279
NASA FMEA #: 05-6-2205-2

SUBSYSTEM: EPD&C
MDAC ID: 5279
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-306
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5280
NASA FMEA #: 05-6-2205-2

SUBSYSTEM: EPD&C
MDAC ID: 5280
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA’S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-307
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5281
NASA FMEA #: 05-6-2205-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5281
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-308
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5282
NASA FMEA #: 05-6-2205-1

SUBSYSTEM: EPD&C
MDAC ID: 5282
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-309
# APPENDIX C
## ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/01/88  
**ASSESSMENT ID:** EPD&C-5283  
**NASA FMEA #:** 05-6-2205-2  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5283  
**ITEM:** DIODE, ISOLATION 35A (TO PAYLOAD CABIN)  
**LEAD ANALYST:** K. SCHMECKPEPER

**NASA DATA:**  
**BASELINE [ ]**  
**NEW [ X ]**

**SUBSYSTEM:** EPD&C  
**ITEM:** DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

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### CIL RETENTION RATIONALE: (If applicable)

**ADEQUATE [ ]**  
**INADEQUATE [ ]**

**REMARKS:**

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

**REPORT DATE** 02/23/88  
**C-310**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5284
NASA FMEA #: 05-6-2205-2

SUBSYSTEM: EPD&C
MDAC ID: 5284
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-311
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5285
NASA FMEA #: 05-6-2205-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5285
ITEM: DIODE, ISOLATION 35A (TO PAYLOAD CABIN)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-312
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5286
NASA FMEA #: 05-6-2395-2

SUBSYSTEM: EPD&C
MDAC ID: 5286
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-313
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5287
NASA FMEA #: 05-6-2395-1
SUBSYSTEM: EPD&C
MDAC ID: 5287
ITEM: RPC, 15A TO PAYLOAD CABIN
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-314
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5288
NASA FMEA #: 05-6-2395-2

SUBSYSTEM: EPD&C
MDAC ID: 5288
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-315
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5289
NASA FMEA #: 05-6-2395-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5289
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-316
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5290
NASA FMEA #: 05-6-2395-2

SUBSYSTEM: EPD&C
MDAC ID: 5290
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-317
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5291
NASA FMEA #: 05-6-2395-1

SUBSYSTEM: EPD&C
MDAC ID: 5291
ITEM: RPC, 15A TO PAYLOAD CABIN

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS:  (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-318
APPENDIX C
ASSESSMENT WORKSHEET

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SUBSYSTEM: EPD&C
MDAC ID: 5292
ITEM: RPC, 20A TO P/L AUX & P/L EMERGENCY BUSSES

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-319
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5293
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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REPORT DATE 02/23/88 C-320
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5294
NASA FMEA #: 05-6-2322-1

SUBSYSTEM: EPD&C
MDAC ID: 5294
ITEM: RESISTOR, 1.8K (TO MDM OF2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-321
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  
ASSESSMENT ID: EPD&C-5295  
NASA FMEA #: 05-6-2321-1  
NASA DATA:
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: EPD&C  
MDAC ID: 5295  
ITEM: RESISTOR, 2.2K (TO MDM OF2)  
LEAD ANALYST: K. SCHMECKPEPER

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(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88  C-322
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5296
NASA FMEA #: 05-6-2396-1

SUBSYSTEM: EPD&C
MDAC ID: 5296
ITEM: RPC, 7.5A (P/L PWR KILL MAIN B/C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER LEARNING MORE ABOUT PAYLOAD POWER REQUIREMENTS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
NASA DATA:
ASSESSMENT ID: EPD&C-5297
NASA FMEA #: 05-6-2396-2
NASA FMEA #: 05-6-2396-2

SUBSYSTEM: EPD&C
MDAC ID: 5297
ITEM: RPC, 7.5A (P/L PWR KILL MAIN B/C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER LEARNING MORE ABOUT PAYLOAD POWER REQUIREMENTS.

REPORT DATE 02/23/88 C-324
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/04/87  
**ASSESSMENT ID:** EPD&C-5298  
**NASA FMEA #:** 05-6-2209-1

**NASA DATA:**  
Baseline [ ]  
New [ X ]

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5298  
**ITEM:** DIODE, ISOLATION 35A (TO MAIN DC DIST ASSY #2 - P/L PWR KILL)

**LEAD ANALYST:** K. SCHMECKPEER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* **CIL RETENTION RATIONALE:** (If applicable)  
  Adequate [ ]  
  Inadequate [ ]

**REMARKS:**

IOA CONCURS WITH NASA'S SCREEN "B".

**REPORT DATE** 02/23/88  C-325
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5299
NASA FMEA #: 05-6-2209-2
SUBSYSTEM: EPD&C
MDAC ID: 5299
ITEM: DIODE, ISOLATION 35A (TO MAIN DC DIST ASSY #2 - P/L PWR KILL)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-326
**APPENDIX C**

**ASSESSMENT WORKSHEET**

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**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5300  
**ITEM:** DIODE, ISOLATION 35A (TO MAIN DC DIST ASSY #3 - P/L PWR KILL)  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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*(ADD/DELETE)*

**CIL RETENTION RATIONALE:** (If applicable)

| ADEQUATE [ ] |
| INADEQUATE [ ] |

**REMARKS:**

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

**REPORT DATE 02/23/88 C-327**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5301
NASA FMEA #: 05-6-2209-1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5301
ITEM: DIODE, ISOLATION 35A (TO MAIN DC DIST ASSY #3 - P/L PWR KILL)
LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-328
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5302
NASA FMEA #: 05-6-2210-1

SUBSYSTEM: EPD&C
MDAC ID: 5302
ITEM: DIODE, ISOLATION 35A (TO P/L PWR KILL - FC#3)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ] INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA RE-EVALUATION AS IOA WAS UNAWARE OF NSTS PROGRAM POLICY NOT TO SUPPLY PAYLOAD POWER DIRECTLY FROM FUEL CELL 3.

REPORT DATE 02/23/88 C-329
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/04/87  
**ASSESSMENT ID:** EPD&C-5303  
**NASA FMEA #:** 05-6-2210-2

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5303  
**ITEM:** DIODE, ISOLATION 35A (TO P/L PWR KILL - FC#3)  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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*(ADD/DELETE)*

**CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
NASA DATA:
ASSESSMENT ID: EPD&C-5304
BASELINE [ ]
NASA FMEA #: 05-6-2397-1
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5304
ITEM: RPC, 7.5A (P/L PWR KILL F/C#3)

LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER LEARNING MORE ABOUT PAYLOAD POWER REQUIREMENTS.

REPORT DATE 02/23/88 C-331
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/13/87  
**ASSESSMENT ID:** EPD&C-5305  
**NASA FMEA #:** 05-6-2397-2

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5305  
**ITEM:** RPC, 7.5A (P/L PWR KILL F/C#3)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* **CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA'S REEVALUATION AFTER LEARNING MORE ABOUT PAYLOAD POWER REQUIREMENTS.

**REPORT DATE** 02/23/88  
**C-332**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
NASA DATA:
ASSESSMENT ID: EPD&C-5306
BASELINE [ ]
NASA FMEA #: 05-6-2227-1
NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5306
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD PRI MN B)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS TO TRANSFER, FAILS TO OPEN, FAILS TO CLOSE. IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-333
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/18/87  
**NASA DATA:**  
**ASSESSMENT ID:** EPD&C-5306A  
**NASA FMEA #:** 05-6-2227-3  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5306  
**ITEM:** SWITCH, TOGGLE SPDT (PAYLOAD PRI MN B)  
**LEAD ANALYST:** K. SCHMECKPEPER

### ASSESSMENT:

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* *CIL RETENTION RATIONALE: (If applicable)*

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### REMARKS:

**REPORT DATE 02/23/88**  
**C-334**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
ASSESSMENT ID: EPD&C-5307
NASA FMEA #: 05-6-2227-2

SUBSYSTEM: EPD&C
MDAC ID: 5307
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD PRI MN B)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: SHORTS. IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-335
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
ASSESSMENT ID: EPD&C-5308
NASA FMEA #: 05-6-2226-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5308
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD PRI F/C#3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAIL TO TRANSFER, FAILS TO OPEN, FAILS TO CLOSE. IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-336
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
ASSESSMENT ID: EPD&C-5308A
NASA FMEA #: 05-6-2226-3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5308
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD PRI F/C#3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-337
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
ASSESSMENT ID: EPD&C-5309
NASA FMEA #: 05-6-2226-2

SUBSYSTEM: EPD&C
MDAC ID: 5309
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD PRI F/C#3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS CLOSED IN "ON" POSITION. IOA CONCURS WITH NASA'S REEVALUATION.
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87  
ASSESSMENT ID: EPD&C-5310  
NASA FMEA #: 05-6-2227-1  

ASSESSMENT ID: EPD&C  
MDAC ID: 5310  
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD PRI MN C)  
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS TO TRANSFER, FAILS TO OPEN, FAILS TO CLOSE. IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88  C-339
ASSESSMENT DATE: 12/18/87
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5310
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD PRI MN C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-340
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
ASSESSMENT ID: EPD&C-5311
NASA FMEA #: 05-6-2227-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5311
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD PRI MN C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: SHORTS. IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-341
# APPENDIX C

## ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/04/87  
**ASSESSMENT ID:** EPD&C-5312  
**NASA FMEA #:** 05-6-2141-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5312  
**ITEM:** SWITCH, MOTORIZED (MAIN DC BUS B TO PAYLOAD)  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:** CRITICALITY REDUNDANCY SCREENS  

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**RECOMMENDATIONS:** (If different from NASA)  

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*(ADD/DELETE)*

* CIL RETENTION RATIONALE: (If applicable)  

APEQUATE | [ ]  
INADEQUATE | [ ]

**REMARKS:**  
IOA CONCURS WITH NASA AFTER FURTHER ANALYSIS.

**REPORT DATE** 02/23/88  
**C-342**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5313
NASA FMEA #: 05-6-2141-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5313
ITEM: SWITCH, MOTORIZED (MAIN DC BUS B TO PAYLOAD)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-343
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5314
NASA FMEA #: 05-6-2323-1
NASA DATA:
BASELINE [ ] NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5314
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF3)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-344
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5315
NASA FMEA #: 05-6-2324-1

SUBSYSTEM: EPD&C
MDAC ID: 5315
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REPORT DATE 02/23/88 C-345
ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5315A
NASA FMEA #: 05-6-2324-2
SUBSYSTEM: EPD&C
MDAC ID: 5315
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(REPORT DATE 02/23/88)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REPORT DATE 02/23/88 C-346
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5316
NASA FMEA #: 05-6-2606-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5316
ITEM: FUSE, 150A TO MAIN DC DIST ASSY 3 (PAYLOAD)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA’S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-347
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5317  
**NASA FMEA #:** 05-6-2606-1

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5317  
**ITEM:** FUSE, 150A TO MAIN DC DIST ASSY 3 (PAYLOAD)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

**REPORT DATE** 02/23/88  
**C-348**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5318
NASA FMEA #: 05-6-2240-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5318
ITEM: SWITCH, TOGGLE SPDT (FC 3 STRUCT RTN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER LEARNING OF MCR11954.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
NASA DATA:
BASELINE [ ]
NEW [ X ]

NASA FMEA #: 05-6-2240-2
SUBSYSTEM: EPD&C
MDAC ID: 5318
ITEM: SWITCH, TOGGLE SPDT (FC 3 STRUCT RTN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER LEARNING OF MCR11954.

REPORT DATE 02/23/88 C-350
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5319
NASA FMEA #: 05-6-2240-3

SUBSYSTEM: EPD&C
MDAC ID: 5319
ITEM: SWITCH, TOGGLE SPDT (FC 3 STRUCT RTN)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER LEARNING OF MCR11954.

REPORT DATE 02/23/88 C-351
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5320  
**NASA FMEA #:** 05-6-2606-1  
**NASA DATA:**  
- **BASELINE:** [ ]  
- **NEW:** [ X ]

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5320  
**ITEM:** FUSE, 150A TO PAYLOAD  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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(ADD/DELETE)

**CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

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**REPORT DATE 02/23/88 C-352**
APPENDIX C
ASSESSMENT WORKSHEET

ASSMENT DATE: 6/06/87
ASSMENT ID: EPD&C-5321
NASA FMEA #: 05-6-2606-1

SUBSYSTEM: EPD&C
MDAC ID: 5321
ITEM: FUSE, 150A TO PAYLOAD

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-353
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5322
NASA FMEA #: 05-6-2289-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5322
ITEM: FUSE, 200A TO PAYLOAD

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT. IOA DID NOT CONSIDER A SINGLE STRING POWERED PAYLOAD.

REPORT DATE 02/23/88 C-354
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5323
NASA FMEA #: 05-6-2289-1
SUBSYSTEM: EPD&C
MDAC ID: 5323
ITEM: FUSE, 200A TO PAYLOAD
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT. IOA DID NOT CONSIDER A SINGLE STRING POWERED PAYLOAD.

REPORT DATE 02/23/88 C-355
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5324
NASA FMEA #: 05-6-2289-1
SUBSYSTEM: EPD&C
MDAC ID: 5324
ITEM: FUSE, 200A TO PAYLOAD
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT. IOA DID NOT CONSIDER A SINGLE STRING POWERED PAYLOAD.

REPORT DATE 02/23/88 C-356
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5325
NASA FMEA #: 05-6-2289-1

SUBSYSTEM: EPD&C
MDAC ID: 5325
ITEM: FUSE, 200A TO PAYLOAD

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT. IOA DID NOT CONSIDER A SINGLE STRING POWERED PAYLOAD.

REPORT DATE 02/23/88 C-357
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5326
NASA FMEA #: 05-6-2324-1
SUBSYSTEM: EPD&C
MDAC ID: 5326
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88
C-358
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5326A
NASA FMEA #: 05-6-2324-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5326
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-359
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5327
NASA FMEA #: 05-6-2324-1

SUBSYSTEM: EPD&C
MDAC ID: 5327
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-360
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5327A
NASA FMEA #: 05-6-2324-2

SUBSYSTEM: EPD&C
MDAC ID: 5327
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-361
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
NASA DATA:
ASSESSMENT ID: EPD&C-5328
NASA FMEA #: 05-6-2323-1
SUBSYSTEM: EPD&C
MDAC ID: 5328
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF3)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-362
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5329
NASA FMEA #: 05-6-2323-1
SUBSYSTEM: EPD&C
MDAC ID: 5329
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF3)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [   ]
NEW [   X   ]

ASSESSMENT:

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

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:

REPORT DATE 02/23/88 C-363
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5330
NASA FMEA #: 05-6-2208-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5330
ITEM: DIODE, ISOLATION 35A (TO DC RETURN FROM P/L BAY)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREENS.

REPORT DATE 02/23/88 C-364
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5331
NASA FMEA #: 05-6-2208-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5331
ITEM: DIODE, ISOLATION 35A (TO DC RETURN FROM P/L BAY)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-365
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5332
NASA FMEA #: 05-6-2208-2
SUBSYSTEM: EPD&C
MDAC ID: 5332
ITEM: DIODE, ISOLATION 35A (TO DC RETURN FROM P/L BAY)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-366
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
NASA DATA:
ASSESSMENT ID: EPD&C-5333
NASA FMEA #: 05-6-2208-1
SUBSYSTEM: EPD&C
MDAC ID: 5333
ITEM: DIODE, ISOLATION 35A (TO DC RETURN FROM P/L BAY)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREENS.

REPORT DATE 02/23/88 C-367
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/19/87
**ASSESSMENT ID:** EPD&C-5334
**NASA FMEA #:** 05-6-2140-1

**SUBSYSTEM:** EPD&C
**MDAC ID:** 5334
**ITEM:** SWITCH, MOTORIZED (F/C 3 TO PAYLOAD)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**NASA DATA:**

- **BASELINE** [ ]
- **NEW** [ X ]

**RECOMMENDATIONS:** (If different from NASA)

- [ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

- ADEQUATE [ ]
- INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT.

**REPORT DATE 02/23/88 C-368**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5335
NASA FMEA #: 05-6-2140-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5335
ITEM: SWITCH, MOTORIZED (F/C 3 TO PAYLOAD)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ X ]
Inadequate [ ]

REMARKS:
IOA CONCURS WITH NASA AFTER LEARNING OF THE FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-369
ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5336
NASA FMEA #: 05-6-2142-1
SUBSYSTEM: EPD&C
MDAC ID: 5336
ITEM: SWITCH, MOTORIZED (F/C 3 STRUCTURE RETURN)
LEAD ANALYST: K. SCHMECKPEPER

CRITICALITY
FLIGHT
HDW/FUNC
NASA [ 1 /1 ] [ ] [ ] [ ] [X ] *
IOA [ 2 /1R ] [ P ] [ P ] [ P ] [ X ]
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] (ADD/DELETE)

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

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE TO "FAILS OPEN" - IOA CONCURS WITH THE NASA REEVALUATION.

REPORT DATE 02/23/88 C-370
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87  
ASSESSMENT ID: EPD&C-5337  
NASA FMEA #: 05-6-2142-2  
SUBSYSTEM: EPD&C  
MDAC ID: 5337  
ITEM: SWITCH, MOTORIZED (F/C 3 STRUCTURE RETURN)  
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE TO "FAILS CLOSED" - IOA CONCURS WITH THE NASA REEVALUATION.

REPORT DATE 02/23/88  C-371
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5338
NASA FMEA #: 05-6-2141-1

NASA DATA:
BASELINE [   ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5338
ITEM: SWITCH, MOTORIZED (MAIN DC BUS C TO PAYLOAD)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA AFTER FURTHER ANALYSIS.

REPORT DATE 02/23/88 C-372
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5339
NASA FMEA #: 05-6-2141-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5339
ITEM: SWITCH, MOTORIZED (MAIN DC BUS C TO PAYLOAD)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-373
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5340
NASA FMEA #: 05-6-2389-4

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5340
ITEM: RPC, 7.5A (GSE MAIN C OFF)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(REMINDER: CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-374
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5341
NASA FMEA #: 05-6-2389-3

NASA DATA:
BASELINE [ ]
NEW [ x ]

SUBSYSTEM: EPD&C
MDAC ID: 5341
ITEM: RPC, 7.5A (GSE MAIN C OFF)

LEAD ANALYST: K.\SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-375
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/07/87  
**ASSESSMENT ID:** EPD&C-5342  
**NASA FMEA #:** 05-6-2389-2  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5342  
**ITEM:** RPC, 7.5A (GSE MAIN C ON)  
**LEAD ANALYST:** K. SCHMECKPEPER

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**RECOMMENDATIONS:** (If different from NASA)  
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* **CIL RETENTION RATIONALE:** (If applicable)  
  ADEQUATE [ ]  
  INADEQUATE [ ]

**REMARKS:**

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**REPORT DATE** 02/23/88  
**C-376**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5343
NASA FMEA #: 05-6-2389-1

SUBSYSTEM: EPD&C
MDAC ID: 5343
ITEM: RPC, 7.5A (GSE MAIN C ON)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
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REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-377
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5344
NASA FMEA #: 05-6-2048-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5344
ITEM: SWITCH, MOTORIZED (GSE PWR CONTROL)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-378
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5345
NASA FMEA #: 05-6-2048-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5345
ITEM: SWITCH, MOTORIZED (GSE PWR CONTROL)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88  C-379
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5346
NASA FMEA #: 05-6-2008C-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5346
ITEM: FUSE, 200A TO MAIN DC DIST ASSY 3
LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT. SCREEN "C" DIFFERENCE WAS A TYPO.
**APPENDIX C**

**ASSESSMENT WORKSHEET**

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**RECOMMENDATIONS:** (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

**REMARS:**

IOA CONCURS WITH THE NASA REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT. SCREEN "C" DIFFERENCE WAS A TYPO.

**REPORT DATE 02/23/88** C-381
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5348
NASA FMEA #: 05-6-2257-1

SUBSYSTEM: EPD&C
MDAC ID: 5348
ITEM: FUSE, 3A TO GSE MONITOR
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-382
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5349
NASA FMEA #: 05-6-2350-1

SUBSYSTEM: EPD&C
MDAC ID: 5349
ITEM: RESISTOR, 1.2K (TO GSE PWR CONT)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)
[ / ]   [ ]   [ ]   [ ]   [ ]   [ ]

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

REMARKS:

REPORT DATE 02/23/88 C-383
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5350
NASA FMEA #: 05-6-2354-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5350
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:

REPORT DATE 02/23/88 C-384
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5351
NASA FMEA #: 05-6-2354-1

SUBSYSTEM: EPD&C
MDAC ID: 5351
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-385
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5352
NASA FMEA #: 05-6-2342-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5352
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REPORT DATE 02/23/88 C-386
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5353
NASA FMEA #: 05-6-2342-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5353
ITEM: RESISTOR, 5.1K 1/4W (TO MDM OF3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-387
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5354
NASA FMEA #: 05-6-2336-1
SUBSYSTEM: EPD&C
MDAC ID: 5354
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-388
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5355
NASA FMEA #: 05-6-2334-1

SUBSYSTEM: EPD&C
MDAC ID: 5355
ITEM: RESISTOR, 2K 1/4W (TO C&W)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-389
### Appendix C

#### Assessment Worksheet

**Assessment Date:** 6/06/87  
**Assessment ID:** EPD&C-5356  
**NASA FMEA #:** 05-6-2334-1  
**NASA Data:**  
**Baseline:** [ ]  
**New:** [x]

**Subsystem:** EPD&C  
**MDAC ID:** 5356  
**Item:** RESISTOR, 14K 1/4W (TO C&W)

**Lead Analyst:** K. Schmeckpeper

#### Assessment:

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**Recommendations:** (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL Retention Rationale: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**Remarks:**

**Report Date:** 02/23/88  
**C-390**
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 12/07/87  
**ASSESSMENT ID:** EPD&C-5357  
**NASA FMEA #:** 05-6-2345C-1

**NASA DATA:**  
BASELINE [ ]  
NEW [ X ]

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5357  
**ITEM:** SHUNT, DC AMMETER (TO F/C 3)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:**  
(If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE:  
(If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

**REMARKS:**

IOA AGREES WITH NASA THAT THIS FAILURE IS 1/1 FOR RTLS ABORT DUE TO HELIUM BLOWDOWN VALVES FAILURE AND PROBLEMS WITH OMS FUEL DUMP.

**REPORT DATE 02/23/88**  
**C-391**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5358
NASA FMEA #: 05-6-2008C-1

SUBSYSTEM: EPD&C
MDAC ID: 5358
ITEM: FUSE, 200A TO APCA-6

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH THE NASA REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT. SCREEN "C" DIFFERENCE WAS A Typo.

REPORT DATE 02/23/88 C-392
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5359
NASA FMEA #: 05-6-2008C-1

SUBSYSTEM: EPD&C
MDAC ID: 5359
ITEM: FUSE, 200A TO APCA-6
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

NASA [3 /1R] [P] [F] [P] [X] *
IOA [2 /1R] [P] [F] [F] [X]
COMPARE [N /] [ ] [ ] [N] [ ]

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION AFTER FURTHER ANALYSIS OF
THE CIRCUIT. SCREEN "C" DIFFERENCE WAS A TYPO.

REPORT DATE 02/23/88 C-393
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5360
NASA FMEA #: 05-6-2255-1

SUBSYSTEM: EPD&C
MDAC ID: 5360
ITEM: FUSE, 5A TO MPCA-3, FPCA-3, APCA-6

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-394
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5361
NASA PMEA #: 05-6-2260-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5361
ITEM: FUSE, 200A TO DC TIE BUS

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88       C-395
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5362
ASSESSMENT ID: EPD&C-5362
NASA FMEA #: 05-6-2260-1
NASA FMEA #: 05-6-2260-1
SUBSYSTEM: EPD&C
SUBSYSTEM: EPD&C
MDAC ID: 5362
MDAC ID: 5362
ITEM: FUSE, 200A TO DC TIE BUS
ITEM: FUSE, 200A TO DC TIE BUS
LEAD ANALYST: K. SCHMECKPEPER
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-396
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5363
NASA FMEA #: NOT FOUND

SUBSYSTEM: EPD&C
MDAC ID: 5363
ITEM: FUSE, 10A (NO LOAD CONNECTED)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS COMPONENT HAS NO CONNECTION TO FLIGHT HARDWARE OR IS A TEST POINT. THEREFORE NASA DID NOT INCLUDE IT IN THEIR FMEAS. IOA CONCURS.
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/01/88  
**NASA DATA:**  
- **BASELINE** [ ]  
- **NEW** [ X ]  

**ASSESSMENT ID:** EPD&C-5364  
**NASA FMEA #:** 5-6-2242-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5364  
**ITEM:** FUSE, 20A TO ESS BUS 3AB  
**LEAD ANALYST:** K. SCHMECKPEPER

### ASSESSMENT:

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### RECOMMENDATIONS:

(If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

**ADEQUATE** [ ]  
**INADEQUATE** [ ]

### REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

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**REPORT DATE 02/23/88**  
**C-398**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5365
NASA FMEA #: 05-6-2270-1

SUBSYSTEM: EPD&C
MDAC ID: 5365
ITEM: FUSE, 3A TO DC VOLTOMETER

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-399
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/06/87

**ASSESSMENT ID:** EPD&C-5366

**NASA FMEA #:** 05-6-2253-1

**SUBSYSTEM:** EPD&C

**MDAC ID:** 5366

**ITEM:** FUSE, 3A TO DC VOLTMETER

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** *(If different from NASA)*

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*(ADD/DELETE)*

**CIL RETENTION RATIONALE:** *(If applicable)*

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88**

C-400
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5367
NASA FMEA #: 05-6-2241-1

SUBSYSTEM: EPD&C
MDAC ID: 5367
ITEM: CIRCUIT BREAKER, 5A THERMAL (MAIN C CONTR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-401
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  
ASSESSMENT ID: EPD&C-5368  
NASA FMEA #: 05-6-2241-2

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM:  
MDAC ID: 5368  
ITEM: CIRCUIT BREAKER, 5A THERMAL (MAIN C CONTR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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| IOA | 3 /3 ] | [ ] | [ ] | [ ] | [ ] | [ ] | |
| COMPARE | [ / ] | [ ] | [ ] | [ ] | [ ] | [ ] | |

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88   C-402
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5369
NASA FMEA #: 05-6-2212-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5369
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS OPEN, FAILS CLOSED IN "OFF" POSITION. IOA CONCURS WITH NASA'S REEVALUATION AS THIS IS A STANDBY FUNCTION.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5369A
NASA FMEA #: 05-6-2212-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5369
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE C)

LEAD ANALYST: K. SCHMECKPEPER

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 ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-404
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5370
NASA FMEA #: 05-6-2212-3

SUBSYSTEM: EPD&C
MDAC ID: 5370
ITEM: SWITCH, TOGGLE SPDT (MAIN BUS TIE C)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

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REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS CLOSED IN "ON" POSITION, SHORTS (CONTACT TO CONTACT). IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-405
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5371
NASA FMEA #: 05-6-2211-1

SUBSYSTEM: EPD&C
MDAC ID: 5371
ITEM: SWITCH, TOGGLE DPDT (FC/MN BUS C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

NASA [ 2 /1R ] [ P ] [ NA] [ P ] [ X ] *
IOA [ 3 /1R ] [ P ] [ P ] [ P ] [  ]

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

RECOMMENDATIONS: (If different from NASA)

[  ] [  ] [  ] [  ] [  ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [  ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS TO TRANSFER TO "OFF", SHORTS TO GROUND, FAILS CLOSED IN "ON". IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/05/87
ASSESSMENT ID: EPD&C-5372
NASA FMEA #: 05-6-2211-3
SUBSYSTEM: EPD&C
MDAC ID: 5372
ITEM: SWITCH, TOGGLE DPDT (FC/MN BUS C)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS CLOSED IN "OFF" POSITION. IOA CONCURS WITH NASA'S REEVALUATION AND AGREES THAT THIS FAILURE IS CRIT 1 DURING INTACT ABORT.

REPORT DATE 02/23/88 C-407
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
ASSESSMENT ID: EPD&C-5373
NASA FMEA #: 05-6-2228-1

SUBSYSTEM: MDAC
MDAC ID: 5373
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD AFT MN C)

LEAD ANALYST: K. Schmeckpeper

ASSESSMENT:

CRITICALITY REDUNDANCY SCREENS CIL ITEM

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA HAS REDEFINED THIS FAILURE MODE AS: FAILS TO TRANSFER, FAILS TO OPEN, FAILS TO CLOSE. IOA CONCURS WITH NASA'S REEVALUATION.

REPORT DATE 02/23/88 C-408
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
NASA DATA:
ASSESSMENT ID:  EPD&C-5373A
NASA FMEA #:  05-6-2228-3
SUBSYSTEM:  EPD&C
MDAC ID:  5373
ITEM:  SWITCH, TOGGLE SPDT (PAYLOAD AFT MN C)
LEAD ANALYST:  K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS:  (If different from NASA)
[ / ] [ ] [ ] [ ] [ ]

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

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS COMPONENT. IOA CONCURS WITH NASA'S ANALYSIS.

REPORT DATE 02/23/88  C-409
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/18/87
ASSESSMENT ID: EPD&C-5374
NASA FMEA #: 05-6-2228-2

SUBSYSTEM: EPD&C
MDAC ID: 5374
ITEM: SWITCH, TOGGLE SPDT (PAYLOAD AFT MN C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA HAS REDEFINED THIS FAILURE MODE AS: SHORTS. IOA CONCURS WITH NASA'S REEVALUATION.
APPENDIX C
ASSESSMENT WORKSHEET

ASSessment Date: 6/06/87
Assessment ID: EPD&C-5375
NASA FMEA #: 05-6-2392-1

Subsystem: EPD&C
MDAC ID: 5375
Item: RELAY (TO AFT PAYLOAD BUS)
Lead Analyst: K. SCHMECKPEPER

Assessment:

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Recommendations: (If different from NASA)

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

* CIL Retention Rationale: (If applicable)

Adequate [ ]
Inadequate [ ]

Remarks:

Report Date 02/23/88 C-411
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5376
NASA FMEA #: 05-6-2392-2
SUBSYSTEM: EPD&C
MDAC ID: 5376
ITEM: RELAY (TO AFT PAYLOAD BUS)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-412
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5377
NASA FMEA #: 05-6-2288-1
SUBSYSTEM: EPD&C
MDAC ID: 5377
ITEM: FUSE, 80A TO AFT P/L MN C
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5378
NASA FMEA #: 05-6-2243-1
SUBSYSTEM: EPD&C
MDAC ID: 5378
ITEM: RESISTOR, 5.1K
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-414
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5379
NASA FMEA #: 05-6-2388A-2

SUBSYSTEM: EPD&C
MDAC ID: 5379
ITEM: RPC, 7.5A (DC TIE BUS MAIN C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-415
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5380
NASA FMEA #: 05-6-2388A-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5380
ITEM: RPC, 7.5A (DC TIE BUS MAIN C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5381
NASA FMEA #: 05-6-2388B-2
SUBSYSTEM: EPD&C
MDAC ID: 5381
ITEM: RPC, 7.5A (DC TIE BUS MAIN C)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-417
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5382
NASA FMEA #: 05-6-2388B-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5382
ITEM: RPC, 7.5A (DC TIE BUS MAIN C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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| IOA | 3 /3 | [ ] | [ ] | [ ] | [ ] |
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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO THIS FAILURE ALONG WITH INADVERTENT POWER ON THE PREFLIGHT TEST BUS WOULD PREVENT A BUS TIE.

REPORT DATE 02/23/88 C-418
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5383
NASA FMEA #: 05-6-2387A-2
SUBSYSTEM: EPD&C
MDAC ID: 5383
ITEM: RPC, 7.5A (MAIN DC BUS C F/C PWR)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5384
NASA FMEA #: 05-6-2387A-1
NASA DATA: BASELINE [ ] NEW [ ]

SUBSYSTEM: EPD&C
MDAC ID: 5384
ITEM: RPC, 7.5A (MAIN DC BUS C F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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| IOA  | [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| COMPARE | [ /N ] | [ N ] | [ N ] | [ N ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-420
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5385
NASA FMEA #: 05-6-2387B-2

SUBSYSTEM: EPD&C
MDAC ID: 5385
ITEM: RPC, 7.5A (MAIN DC BUS C F/C PWR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-421
APPENDIX C

ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5386
NASA FMEA #: 05-6-2387B-1

SUBSYSTEM: EPD&C
MDAC ID: 5386
ITEM: RPC, 7.5A (MAIN DC BUS C F/C PWR)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
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NEW [ ]

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RECOMMENDATIONS: (If different from NASA)

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(REPEAT DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO THIS FAILURE ALONG WITH INADVERTENT POWER ON THE PREFLIGHT TEST BUS WOULD DISCONNECT A MAIN DC BUS FROM THE FUEL CELL. IF A BUS TIE COULD NOT BE PERFORMED THE BUS WOULD BE LOST.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5387
NASA FMEA #: 05-6-2207-1

NASA DATA:
BASELINE [ ]
NEW [X ]

SUBSYSTEM: EPD&C
MDAC ID: 5387
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-423
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5387A
NASA FMEA #: 05-6-2207-3
SUBSYSTEM: EPD&C
MDAC ID: 5387
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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| [ P ] |

COMPARISON:

| COMPARE |
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| [ ] |

| NASA DATA: |
| BASELINE [ ] |
| NEW [ X ] |

RECOMMENDATIONS: (If different from NASA)

| [ ] |
| [ ] |

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

REMARKS:

REPORT DATE 02/23/88 C-424
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5388
NASA FMEA #: 05-6-2207-2
ASSESSMENT ID: EPD&C-5388
MDAC ID: 5388
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM:
MDAC ID: EPD&C
ITEM: DIODE, ISOLATION 35A

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-425
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5389
NASA FMEA #: 05-6-2207-2
SUBSYSTEM: EPD&C
MDAC ID: 5389
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5390
NASA FMEA #: 05-6-2207-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5390
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-427
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5390A
NASA FMEA #: 05-6-2207-3

SUBSYSTEM: EPD&C
MDAC ID: 5390
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-428
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5391
NASA FMEA #: 05-6-2207-1

SUBSYSTEM: MDAC
MDAC ID: EPD&C
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-429
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: EPD&C-5391A
NASA FMEA #: 05-6-2207-3

SUBSYSTEM: EPD&C
MDAC ID: 5391
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-430
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5392
NASA FMEA #: 05-6-2207-2
SUBSYSTEM: EPD&C
MDAC ID: 5392
ITEM: DIODE, ISOLATION 35A
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-431
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5393
NASA FMEA #: 05-6-2207-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5393
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-432
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/19/87  
**NASA DATA:**  
**BASELINE** [ ]  
**NEW** [ X ]

**ASSESSMENT ID:** EPD&C-5394  
**NASA FMEA #:** 05-6-2207-1

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5394  
**ITEM:** DIODE, ISOLATION 35A

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA DUE TO FUEL CELL SAFING CONCERNS.

**REPORT DATE 02/23/88**

C-433
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87  
ASSESSMENT ID: EPD&C-5394A  
NASA FMEA #: 05-6-2207-3

NASA DATA:
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: EPD&C  
MDAC ID: 5394  
ITEM: DIODE, ISOLATION 35A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-434
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5395
NASA FMEA #: 05-6-2278-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5395
ITEM: FUSE, 35A

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.

REPORT DATE 02/23/88 C-435
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5396
NASA FMEA #: 05-6-2278-1
SUBSYSTEM: EPD&C
MDAC ID: 5396
ITEM: FUSE, 35A
LEAD ANALYST: K. SCHMECKPEPER

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

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5397
NASA FMEA #: NEW # UNKNOWN

SUBSYSTEM: EPD&C
MDAC ID: 5397
ITEM: FUSE, 5A TO RJDA

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5398
NASA FMEA #: 05-6-2280-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM:
MDAC ID:
ITEM:
FUSE, 15A TO A14 PANEL (RCS/OMS HTRS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-438
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5399
NASA FMEA #: 05-6-2601-1

SUBSYSTEM: EPD&C
MDAC ID: 5399
ITEM: FUSE, 5A TO RESISTORS TO CONT BUS MAIN C, ESS BUSSES 1BC & 2CA

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-439
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5400
NASA FMEA #: DELETED
SUBSYSTEM: EPD&C
MDAC ID: 5400
ITEM: FUSE, 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
WIRING CHANGE HAS DISCONNECTED THIS FUSE FROM ALL LOADS. THEREFORE, NASA HAS DELETED THIS FMEA NUMBER.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5401
NASA FMEA #: 05-6-2278-1
SUBSYSTEM: EPD&C
MDAC ID: 5401
ITEM: FUSE, 35A
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

| CRITICALLY REDUNDANCY SCREENS CIL |
|---|---|---|---|---|
| FLIGHT HDW/FUNC | A | B | C | 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:

REPORT DATE 02/23/88 C-441
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5402
NASA FMEA #: 05-6-2278-1
SUBSYSTEM: EPD&C
MDAC ID: 5402
ITEM: FUSE, 35A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO AFTER LEARNING MORE INFORMATION ABOUT EMERGENCY FUNCTIONS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5403
NASA FMEA #: 05-6-2247-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5403
ITEM: CIRCUIT BREAKER, 10A (MN C UTIL PWR A11/A15/M030F)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-443
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5404
NASA FMEA #: 05-6-2247-1

SUBSYSTEM: EPD&C
MDAC ID: 5404
ITEM: CIRCUIT BREAKER, 10A (MN C UTIL PWR A11/A15/M030F)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

REMARKS:

REPORT DATE 02/23/88 C-444
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5405
NASA FMEA #: 05-6-2261-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5405
ITEM: CIRCUIT BREAKER, 10A (CONT BUS AB1, AB2, AB3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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FLIGHT
HDW/FUNC
REUNDANCY SCREENS
CIL
ITEM

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
Adequate [ ]
Inadequate [ ]

REMARKS:

REPORT DATE 02/23/88 C-445
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5406
NASA FMEA #: 05-6-2261-1

SUBSYSTEM: EPD&C
MDAC ID: 5406
ITEM: CIRCUIT BREAKER, 10A (CONT BUS AB1, AB2, AB3)

LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [   ]
NEW [ X ]

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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
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REMARKS:
IOA CONCURS WITH NASA'S RREEVALUATION AS A CIRCUIT BREAKER "POP" IS NOT READILY DETECTABLE.

REPORT DATE 02/23/88 C-446
ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5407
NASA FMEA #: 05-6-2181-1

SUBSYSTEM: EPD&C
MDAC ID: 5407
ITEM: DIODE, ISOLATION 12A (TO CONT BUS AB1)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS.
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5408
NASA FMEA #: 05-6-2181-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5408
ITEM: DIODE, ISOLATION 12A (TO CONT BUS AB1)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-448
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5409
NASA FMEA #: 05-6-2181-2

SUBSYSTEM: EPD&C
MDAC ID: 5409
ITEM: DIODE, ISOLATION 12A (TO CONT BUS AB2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-449
**APPENDIX C**

**ASSESSMENT WORKSHEET**

| ASSESSMENT DATE: | 6/04/87 |
| ASSESSMENT ID: | EPD&C-5410 |
| NASA FMEA #: | 05-6-2181-1 |
| NASA DATA: | BASELINE [ ] NEW [ X ] |
| SUBSYSTEM: | EPD&C |
| MDAC ID: | 5410 |
| ITEM: | DIODE, ISOLATION 12A (TO CONT BUS AB2) |
| LEAD ANALYST: | K. SCHMECKPEPER |

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**RECOMMENDATIONS:** (If different from NASA)

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**CIL RETENTION RATIONALE:** (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

**REMARKS:**

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS.
**APPENDIX C**

**ASSESSMENT WORKSHEET**

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**SUBSYSTEM:** EPD&C

**MDAC ID:** 5411

**ITEM:** DIODE, ISOLATION 12A (TO CONT BUS AB3)

**LEAD ANALYST:** K. SCHMECKPEPER

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**RECOMMENDATIONS:** (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

**REMARKS:**

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5412
NASA FMEA #: 05-6-2181-2
SUBSYSTEM: EPD&C
MDAC ID: 5412
ITEM: DIODE, ISOLATION 12A (TO CONT BUS AB3)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-452
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5413
NASA FMEA #: 05-6-2225-1

SUBSYSTEM: EPD&C
MDAC ID: 5413
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN C)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)
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REMARKS:

REPORT DATE 02/23/88 C-453
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5414
NASA FMEA #: 05-6-2225-1

SUBSYSTEM: EPD&C
MDAC ID: 5414
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN C)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONAL: (If applicable)
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REMARKS:

REPORT DATE 02/23/88  C-454
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  NASA DATA:
ASSESSMENT ID: EPD&C-5415  BASELINE [ ]
NASA FMEA #: 05-6-2225-1  NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5415
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN C)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-455
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5416
NASA FMEA #: 05-6-2225-1
SUBSYSTEM: EPD&C
MDAC ID: 5416
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN C)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-456
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5417  
**NASA FMEA #:** 05-6-2225-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5417  
**ITEM:** SWITCH, TOGGLE (DC UTIL PWR MN C)  
**LEAD ANALYST:** K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

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**REPORT DATE** 02/23/88  
**C-457**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5418
NASA FMEA #: 05-6-2225-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5418
ITEM: SWITCH, TOGGLE (DC UTIL PWR MN C)

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

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REMARKS:

REPORT DATE 02/23/88  C-458
APPENDIX C
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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS.

REPORT DATE 02/23/88  C-459
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5419A
NASA FMEA #: 05-6-2707-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5419
ITEM: RESISTOR, 1.2K 2W (TO FPCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-460
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5420
NASA FMEA #: 05-6-2657-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5420
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN C FWD 3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)

REMARKS:

ADEQUATE [ ]
INADEQUATE [ ]

REPORT DATE 02/23/88 C-461
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

Asessment Date: 12/07/87  
Assessment ID: EPD&C-5421  
NASA FMEA #: 05-6-2657-1  

**Subsystem:** EPD&C  
**MDAC ID:** 5421  
**Item:** SWITCH, TOGGLE SPST (MCA LOGIC MN C FWD 3)  
**Lead Analyst:** K. Schmeckpeper

**Assessment:**

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**Compare:** [ / ] [ ] [ N ] [ ] [ ] [ ]

**Recommendations:** (If different from NASA)

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

* CIL Retention Rationale: (If applicable)

Adequate [ X ]  
Inadequate [ ]

**Remarks:**

The "B" Screen passes because the ground can monitor the MCA operational status measurements.

Report Date: 02/23/88  
C-462
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5422
NASA FMEA #: 05-6-2006-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5422
ITEM: FUSE, 150A TO FPCA-3

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-463
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5423
NASA FMEA #: 05-6-2006-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5423
ITEM: FUSE, 150A TO FPCA-3
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5424
NASA FMEA #: 05-6-2354-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5424
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-465
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5425
NASA FMEA #: 05-6-2807-2

SUBSYSTEM: EPD&C
MDAC ID: 5425
ITEM: RPC, 5A (FMCA-3 PWR CONT)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-466
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5426
NASA FMEA #: 05-6-2807-1

SUBSYSTEM: EPD&C
MDAC ID: 5426
ITEM: RPC, 5A (FMCA-3 PWR CONT)

LEAD ANALYST: K. SCHMECKPEPER

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NASA DATA:
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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B". GROUND CAN DETERMINE STATE OF RPC VIA OPERATIONAL STATUS MEASUREMENTS.

REPORT DATE 02/23/88 C-467
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5427
NASA FMEA #: 05-6-2294-1

SUBSYSTEM: EPD&C
MDAC ID: 5427
ITEM: FUSE, 35A TO FLCA-3

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA AGREES WITH NASA'S EVALUATION BECAUSE THE IOA ANALYST WAS UNAWARE OF THE SINGLE STRING FIRE SUPPRESSION SYSTEM.

REPORT DATE 02/23/88 C-468
APPENDIX C
ASSESSMENT WORKSHEET

ASSessment DATE: 6/19/87
ASSessment ID:  EPD&C-5428
NASA FMEA #:  NOT FOUND

SUBSYSTEM: EPD&C
MDAC ID:  5428
ITEM: RESISTOR, 5.1K

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

THIS COMPONENT HAS NO CONNECTION TO FLIGHT HARDWARE OR IS A TEST POINT. THEREFORE NASA DID NOT INCLUDE IT IN THEIR FMEAS. IOA CONCURS.

REPORT DATE 02/23/88

C-469
ASSESSMENT DATE: 6/06/87  
ASSESSMENT ID: EPD&C-5429  
NASA FMEA #: 05-6-2351-1  
SUBSYSTEM: EPD&C  
MDAC ID: 5429  
ITEM: RESISTOR, 1.8K 1/4W (TO SIG COND OF3)  
LEAD ANALYST: K. SCHMECKPEPER  

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]  

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87  NASA DATA:
ASSESSMENT ID: EPD&C-5430  BASELINE [ ]
NASA FMEA #: 05-6-2704-1  NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5430
ITEM: RESISTOR, 1.2K 2W (TO MPCA-3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITOR THE MOTOR OPERATION TIME.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5430A
NASA FMEA #: 05-6-2704-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5430
ITEM: RESISTOR, 1.2K 2W (TO MPCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-472
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5431
NASA FMEA #: 05-6-2703-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5431
ITEM: RESISTOR, 1.2K 2W (TO MPCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
The "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITER THE MOTOR OPERATION TIME.
APPENDIX C 
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5431A
NASA FMEA #: 05-6-2703-2

SUBSYSTEM: EPD&C
MDAC ID: 5431
ITEM: RESISTOR, 1.2K 2W (TO MPCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-474
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5432
NASA FMEA #: 05-6-2654-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5432
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN C MID 2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITER THE MOTOR OPERATION TIME.
ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5433
NASA FMEA #: 05-6-2654-2

SUBSYSTEM: EPD&C
MDAC ID: 5433
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN C MID 2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AS IOA WAS UNAWARE OF THE "PSYCHOTIC GPC" CONCERN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5434
NASA FMEA #: 05-6-2653-1
SUBSYSTEM: EPD&C
MDAC ID: 5434
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN C MID 4)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

CRITICALLY
FLIGHT
HDW/FUNC

REDUNDANCY SCREENS
A   B   C

ITEM

NASA [ 2 /1R ] [ P ] [ P ] [ P ] [ X ] *
IOA [ 2 /1R ] [ P ] [ F ] [ P ] [ X ]
COMPARE [ / ] [ ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA
OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITER THE
MOTOR OPERATION TIME.

REPORT DATE 02/23/88 C-477
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87
ASSESSMENT ID: EPD&C-5435
NASA FMEA #: 05-6-2653-2
SUBSYSTEM: EPD&C
MDAC ID: 5435
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN C MID 4)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AS IOA WAS UNAWARE OF THE "PSYCHOTIC GPC" CONCERN.

REPORT DATE 02/23/88 C-478
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5436
NASA FMEA #: 05-6-2295-1
SUBSYSTEM: EPD&C
MDAC ID: 5436
ITEM: FUSE, 100A TO MPCA-3
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [

REMARKS:

IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER EXAMINATION OF THE CIRCUIT.

REPORT DATE 02/23/88 C-479
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5437
NASA FMEA #: 05-6-2354-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5437
ITEM: RESISTOR, 5.1K 1/4W (TO GSE MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-480
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5438
NASA FMEA #: 05-6-2299-1
SUBSYSTEM: EPD&C
MDAC ID: 5438
ITEM: FUSE, 35A TO H2/O2 HTR CONT ASSY #1
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-481
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5439
NASA FMEA #: 05-6-2299-1

SUBSYSTEM: EPD&C
MDAC ID: 5439
ITEM: FUSE, 35A TO H2/O2 HTR CONT ASSY #2

LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS: IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-482
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5440
NASA FMEA #: 05-6-2299-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5440
ITEM: FUSE, 50A TO H2/O2 HTR CONT ASSY #4

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS:
(If different from NASA)

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* CIL RETENTION RATIONALE:
(If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-483
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5441
NASA FMEA #: 05-6-2804-2
SUBSYSTEM: EPD&C
MDAC ID: 5441
ITEM: RPC, 5A (TO MMCA-2)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA - IOA UNAWARE OF "PSYCHOTIC GPC" PROBLEM.
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/17/87  
**ASSESSMENT ID:** EPD&C-5442  
**NASA FMEA #:** 05-6-2804-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5442  
**ITEM:** RPC, 5A (TO MMCA-2)  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]  
INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88 C-485**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5443
NASA FMEA #: 05-6-2803-2

SUBSYSTEM: EPD&C
MDAC ID: 5443
ITEM: RPC, 5A (TO MMCA-4)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA - IOA UNAWARE OF "PSYCHOTIC GPC" PROBLEM.

REPORT DATE 02/23/88   C-486
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5444
NASA FMEA #: 05-6-2803-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5444
ITEM: RPC, 5A (TO MMCA-4)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-487
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 12/15/87  
**ASSESSMENT ID:** EPD&C-5445  
**NASA FMEA #:** 05-6-2010-1

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5445  
**ITEM:** FUSE, 150A TO APCA-3  
**LEAD ANALYST:** K. SCHMECKPEPER

### ASSESSMENT:

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| IOA         | 3 /1R | P   | F   | P   | X |
| COMPARE     | /     | N   |     |     | N |

### NASA DATA:

- BASELINE [ ]
- NEW [ X ]

### NASA DATA:

- BASELINE [ ]
- NEW [ X ]

### RECOMMENDATIONS:

(If different from NASA)

- ADD/DELETE

**CIL RETENTION RATIONALE:** (If applicable)

- ADEQUATE [ ]
- INADEQUATE [ ]

### REMARKS:

IOA CONCURS WITH NASA THAT SCREEN "B" IS PASS.

**REPORT DATE 02/23/88**  
**C-488**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/07/87  NASA DATA:
ASSESSMENT ID: EPD&C-5446  Baseline [ ]
NASA FMEA #: 05-6-2293C-1  New [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5446
ITEM: FUSE, 100A TO ALCA-3
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
Adequate [ ]
Inadequate [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS.

REPORT DATE 02/23/88  C-489
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5447
NASA FMEA #: 05-6-2351-1
NASA DATA:
BASELINE [ ]
NEW [ x ]

SUBSYSTEM: MDAC
MDAC ID: 5447
ITEM: RESISTOR, 1.8K 1/4W (TO SIG COND OA3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87  
ASSESSMENT ID: EPD&C-5448  
NASA FMEA #: 05-6-2701-1  
SUBSYSTEM: EPD&C  
MDAC ID: 5448  
ITEM: RESISTOR, 1.2K 2W (TO APCA-6)  
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)  
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(ADD/DELETE)

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

REMARKS:  
THE "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITER THE MCA OPERATIONAL STATUS MEASUREMENTS AND THE CREW CAN MONITER THE MOTOR OPERATION TIME.

REPORT DATE 02/23/88  
C-491
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5448A
NASA FMEA #: 05-6-2701-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5448
ITEM: RESISTOR, 1.2K 2W (TO APCA-6)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-492
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5449
NASA FMEA #: 05-6-2651-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5449
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN C AFT 3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
THE "B" SCREEN PASSES BECAUSE THE CREW CAN MONITER THE MOTOR OPERATION TIME.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5450
NASA FMEA #: 05-6-2651-2
SUBSYSTEM: EPD&C
MDAC ID: 5450
ITEM: SWITCH, TOGGLE SPST (MCA LOGIC MN C AFT 3)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-494
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5451
NASA FMEA #: 05-6-2801-1

SUBSYSTEM: MDAC
MDAC ID: 5451
ITEM: RPC, 5A (TO AMCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
The "B" SCREEN PASSES BECAUSE THE GROUND CAN MONITOR THE RPC STATE WITH THE MCA OPERATIONAL STATUS MEASUREMENT.

REPORT DATE 02/23/88 C-495
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5452
NASA FMEA #: 05-6-2801-2

SUBSYSTEM: EPD&C
MDAC ID: 5452
ITEM: RPC, 5A (TO AMCA-3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-496
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5453
NASA FMEA #: 05-6-2331-1
SUBSYSTEM: EPD&C
MDAC ID: 5453
ITEM: RESISTOR, 1.2K 2W (TO ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-497
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5454
NASA FMEA #: 05-6-2214-3
NASA DATA: BASELINE [ ]
              NEW [ X ]
SUBSYSTEM:   MDAC
MDAC ID:     5454
ITEM:        SWITCH, TOGGLE 3PDT (ESS BUS SOURCE MAIN B/C)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-498
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5455
NASA FMEA #: 05-6-2214-1

SUBSYSTEM: EPD&C
MDAC ID: 5455
ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE MAIN B/C)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-499
### APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/01/88  
**NASA DATA:**  
 **ASSESSMENT ID:** EPD&C-5455A  
 **NASA FMEA #:** 05-6-2214-2  
 **NASA DATA:**  
 **SUBSYSTEM:** EPD&C  
 **MDAC ID:** 5455  
 **ITEM:** SWITCH, TOGGLE 3PDT (ESS BUS SOURCE MAIN B/C)  
 **LEAD ANALYST:** K. SCHMECKPEPER  

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

INADEQUATE [ ]

**REMARKS:**

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**REPORT DATE 02/23/88**

C-500
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5456
NASA FMEA #: 05-6-2331-1
SUBSYSTEM: EPD&C
MDAC ID: 5456
ITEM: RESISTOR, 1.2K 2W (TO ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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*CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-501
# APPENDIX C
## ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/19/87  
**ASSESSMENT ID:** EPD&C-5457  
**NASA FMEA #:** 05-6-2335-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5457  
**ITEM:** RESISTOR, 5.1K 1/4W TO MDM OF4  
**LEAD ANALYST:** K. SCHMECKPEPER

### ASSESSMENT:

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### RECOMMENDATIONS:

(If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

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**REPORT DATE 02/23/88**  
**C-502**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5458
NASA FMEA #: 05-6-2213-3

NASA DATA:
BASELINE [    ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5458
ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE F/C 1)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-503
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5459
NASA FMEA #: 05-6-2213-1
SUBSYSTEM: EPD&C
MDAC ID: 5459
ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE F/C 1)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND - FUEL CELL TO ESS BUS CONTACT" TO THIS FMEA. IOA CONCURS WITH NASA'S SCREEN "B".
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5459A
NASA FMEA #: 05-6-2213-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5459
ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE F/C 1)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-505
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5460
NASA FMEA #: 05-6-2335-1
SUBSYSTEM: EPD&C
MDAC ID: 5460
ITEM: RESISTOR, 5.1K 1/4W TO MDM OF4
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-506
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5461
NASA FMEA #: 05-6-2338-1

SUBSYSTEM: EPD&C
MDAC ID: 5461
ITEM: RESISTOR, 1.8K 1/4W (TO MDM OF2)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88
C-507
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5462
NASA FMEA #: 05-6-2339-1

NASA DATA:
BASELINE [ ]
NEW [ x ]

SUBSYSTEM: EPD&C
MDAC ID: 5462
ITEM: RESISTOR, 2.2K 1/2W (TO MDM OF2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-508
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5463
NASA FMEA #: 05-6-2187-1
NASA DATA: 
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5463
ITEM: DIODE, ISOLATION (TO MPCA-2 - ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-509
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5464
NASA FMEA #: 05-6-2187-2
SUBSYSTEM: EPD&C
MDAC ID: 5464
ITEM: DIODE, ISOLATION (TO MPCA-2 - ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-510
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5465
NASA FMEA #: 05-6-2188-2

SUBSYSTEM: EPD&C
MDAC ID: 5465
ITEM: DIODE, BLOCKING
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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| IOA [ 3 /3 ]   | [ ]   | [ ]   | [ ]   | [ ]     |
| COMPARE [ /N ] | [ N ] | [ N ] | [ N ] | [ N ]   |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCENARIO LISTED ON THE CIL, BUT CONSIDERS THIS TO BE AN "INCREDBILE" CREDIBLE SET OF FAILURES.

REPORT DATE 02/23/88 C-511
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5466
NASA FMEA #: 05-6-2188-1
SUBSYSTEM: EPD&C
MDAC ID: 5466
ITEM: DIODE, BLOCKING
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88    C-512
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5467
NASA FMEA #: 05-6-2011-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5467
ITEM: RPC, 10A TO MDCA #1 - ESS BUS 1BC

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-513
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5468
NASA FMEA #: 05-6-2011-2

SUBSYSTEM: EPD&C
MDAC ID: 5468
ITEM: RPC, 10A TO MDCA #1 - ESS BUS 1BC

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

CRITICALITY REDUNDANCY SCREENS CIL

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-514
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5469
NASA FMEA #: 05-6-2011-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5469
ITEM: RPC, 10A TO MDCA #1 - ESS BUS 1BC

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-515
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5470
NASA FMEA #: 05-6-2011-2
NASA DATA:

BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5470
ITEM: RPC, 10A TO MDCA #1 - ESS BUS 1BC

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-516
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5471
NASA FMEA #: 05-6-2338-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5471
ITEM: RESISTOR, 1.8K 1/4W (TO MDM OF3)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

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

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

RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-517
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  
ASSESSMENT ID: EPD&C-5472  
NASA FMEA #: 05-6-2339-1  
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: EPD&C  
MDAC ID: 5472  
ITEM: RESISTOR, 2.2K 1/2W (TO MDM OF3)

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-518
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5473
NASA FMEA #: 05-6-2187-1
SUBSYSTEM: EPD&C
MDAC ID: 5473
ITEM: DIODE, ISOLATION (TO MPCA-3 - ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-519
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5474
NASA FMEA #: 05-6-2187-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5474
ITEM: DIODE, ISOLATION (TO MPCA-3 - ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

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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: 12/17/87
ASSESSMENT ID: EPD&C-5475
NASA FMEA #: 05-6-2188-2

SUBSYSTEM: EPD&C
MDAC ID: 5475
ITEM: DIODE, BLOCKING

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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IOA [ 3 /3 ] [ ] [ ] [ ] [ ]

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCENARIO LISTED ON THE CIL, BUT CONSIDERS THIS TO BE AN "INCREDIBLE" CREDIBLE SET OF FAILURES.
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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]

Inadequate [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5476
NASA FMEA #: 05-6-2188-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5476
ITEM: DIODE, BLOCKING
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

REPORT DATE 02/23/88 C-522
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5477
NASA FMEA #: 05-6-2185-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5477
ITEM: DIODE, ISOLATION 35A (ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

CRITICALITY
FLIGHT
HDW/FUNC

| NASA | [ 3 /1R ] | A | [ P ] | [ F ] | [ P ] | [ X ] |
| IOA  | [ 3 /1R ] | B | [ P ] | [ F ] | [ P ] | [ X ] |

REDUNDANCY SCREENS

CIL
ITEM

COMPARATE [ / ]

RECOMMENDATIONS: (If different from NASA)

[ / ]

REMARKS:

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

REPORT DATE 02/23/88 C-523
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5478
NASA FMEA #: 05-6-2185-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5478
ITEM: DIODE, ISOLATION 35A (ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS WITH THE NASA REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5479
NASA FMEA #: 05-6-2186-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5479
ITEM: DIODE, ISOLATION 35A (ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-525
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5480
NASA FMEA #: 05-6-2186-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5480
ITEM: DIODE, ISOLATION 35A (ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-526
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 12/15/87  
**NASA DATA:**  
**ASSESSMENT ID:** EPD&C-5480A  
**NASA FMEA #:** 05-6-2186-3  
**BASELINE [ ]**  
**NEW [ X ]**  

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5480  
**ITEM:** DIODE, ISOLATION 35A (ESS BUS 1BC)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)  
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* **CIL RETENTION RATIONALE:** (If applicable)  
  ADEQUATE [ ]  
  INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88**  
C-527
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5481
NASA FMEA #: 05-6-2186-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: MDAC
MDAC ID: 5481
ITEM: DIODE, ISOLATION 35A (ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:

REPORT DATE 02/23/88 C-528
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5481A
NASA FMEA #: 05-6-2186-3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5481
ITEM: DIODE, ISOLATION 35A (ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]
Inadequate [ ]

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5482
NASA FMEA #: 05-6-2186-2

SUBSYSTEM: EPD&C
MDAC ID: 5482
ITEM: DIODE, ISOLATION 35A (ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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NASA [ 3 /1R ]
IOA [ 3 /3 ]
COMPARE [ /N ]

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] (ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH THE NASA REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5483
NASA FMEA #: 05-6-2185-2

SUBSYSTEM: EPD&C
MDAC ID: 5483
ITEM: DIODE, ISOLATION 35A (TO R1A1 PANEL - ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5483
ITEM: DIODE, ISOLATION 35A (TO R1A1 PANEL - ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

CRITICALITY
FLIGHT HDW/FUNC

REDUNDANCY SCREENS
A B C

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

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ]

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

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS WITH THE NASA REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-531
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5484
NASA FMEA #: 05-6-2185-1

SUBSYSTEM: EPD&C
MDAC ID: 5484
ITEM: DIODE, ISOLATION 35A (TO RIA1 PANEL - ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-532
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5485
NASA FMEA #: 05-6-2605-1
SUBSYSTEM: EPD&C
MDAC ID: 5485
ITEM: FUSE, 7.5A
LEAD ANALYST: K. SCHMECKPEPER

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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:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-533
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5486
NASA FMEA #: 05-6-2603-1

SUBSYSTEM: EPD&C
MDAC ID: 5486
ITEM: FUSE, 10A TO ESS BUS 1BC

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
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REMARKS:

REPORT DATE 02/23/88  C-534
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5487
NASA FMEA #: 05-6-2603-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5487
ITEM: FUSE, 10A TO ESS BUS 1BC

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
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REMARKS:

REPORT DATE 02/23/88  C-535
**APPENDIX C**
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**RECOMMENDATIONS:** (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

REPORT DATE 02/23/88  C-536
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5489
NASA FMEA #: NEW # UNKNOWN
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5489
ITEM: FUSE, 15A TO APCA-4

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCOURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.

REPORT DATE 02/23/88 C-537
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5490
NASA FMEA #: 05-6-2300-1
SUBSYSTEM: EPD&C
MDAC ID: 5490
ITEM: FUSE, 5A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [  ]
INADEQUATE [  ]

REMARKS:

REPORT DATE 02/23/88 C-538
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5491
NASA FMEA #: 05-6-2602-1
SUBSYSTEM: EPD&C
MDAC ID: 5491
ITEM: FUSE, 10A TO ML86B PANEL
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-539
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5492
NASA FMEA #: 05-6-2276-1

SUBSYSTEM: EPD&C
MDAC ID: 5492
ITEM: FUSE, 15A TO MPCA-1
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5493
NASA FMEA #: 05-6-2300-1
SUBSYSTEM: EPD&C
MDAC ID: 5493
ITEM: FUSE, 10A
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-541
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5494
NASA FMEA #: 05-6-2275-1
SUBSYSTEM: EPD&C
MDAC ID: 5494
ITEM: FUSE, 10A TO FPCA-1 & FLCA1
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM ID: EPD&C
MDAC ID: 5494
ITEM: FUSE, 10A TO FPCA-1 & FLCA1

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)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-542
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5495
NASA FMEA #: 05-6-2279-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5495
ITEM: FUSE, 10A TO R15 PANEL

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-543
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5496
NASA FMEA #: 05-6-2605-1
SUBSYSTEM: EPD&C
MDAC ID: 5496
ITEM: FUSE, 7.5A
LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-544
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5497
NASA FMEA #: NOT FOUND

SUBSYSTEM: EPD&C
MDAC ID: 5497
ITEM: RESISTOR, 5.1K 1/4W (TO ESS 1BC MONITOR)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS COMPONENT HAS NO CONNECTION TO FLIGHT HARDWARE OR IS A TEST POINT. THEREFORE NASA DID NOT INCLUDE IT IN THEIR FMEAS. IOA CONCURS.

REPORT DATE 02/23/88 C-545
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5498
NASA FMEA #: 05-6-2385-1

SUBSYSTEM: EPD&C
MDAC ID: 5498
ITEM: RPC, 15A (TO ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-546
# APPENDIX C
## ASSESSMENT WORKSHEET

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**ASSESSMENT ID:** EPD&C-5499  
**NASA FMEA #:** 05-6-2385-1  
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**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5499  
**ITEM:** RPC, 15A (TO ESS BUS 1BC)  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:**  
(If different from NASA)  
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* CIL RETENTION RATIONALE:  
(If applicable)  
ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88**  
C-547
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5500
NASA FMEA #: 05-6-2335-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5500
ITEM: RESISTOR, 5.1K (ESS BUS 1BC VOLTAGE)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-548
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5501
NASA FMEA #: 05-6-2291-1
SUBSYSTEM: EPD&C
MDAC ID: 5501
ITEM: FUSE, 7.5A TO ALCA-1 (MPS)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

REMARKS:

REPORT DATE 02/23/88  C-549
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5502
NASA FMEA #: 05-6-2191-1

SUBSYSTEM: EPD&C
MDAC ID: 5502
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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* CIL RETENTION RATIONALE: (If applicable)

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REMARKS:

REPORT DATE 02/23/88 C-550
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5502A
NASA FMEA #: 05-6-2191-3

SUBSYSTEM: EPD&C
MDAC ID: 5502
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-551
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5503
NASA FMEA #: 05-6-2191-2
SUBSYSTEM: MDAC
MDAC ID: 5503
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

* CIL RETENTION RATIONALE: (If applicable)

REMARKS:

IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5504
NASA FMEA #: 05-6-2191-2
NASA DATA: BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5504
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-553
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
NASA DATA:
ASSESSMENT ID: EPD&C-5505
NASA FMEA #: 05-6-2191-1
SUBSYSTEM: EPD&C
MDAC ID: 5505
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88 C-554
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5505A
NASA FMEA #: 05-6-2191-3

SUBSYSTEM: EPD&C
MDAC ID: 5505
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

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

REPORT DATE 02/23/88 C-555
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5506
NASA FMEA #: 05-6-2482-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5506
ITEM: HYBRID DRIVER TYPE I (ESS BUS 1BC)

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)
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REMARKS:

REPORT DATE 02/23/88 C-556
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5507
NASA FMEA #: 05-6-2482-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5507
ITEM: HYBRID DRIVER TYPE I (ESS BUS 1BC)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-557
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5508
NASA FMEA #: NOT FOUND

SUBSYSTEM: EPD&C
MDAC ID: 5508
ITEM: RESISTOR, 5.1K (ESS BUS 1BC TEST POINT)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
THIS COMPONENT HAS NO CONNECTION TO FLIGHT HARDWARE OR IS A TEST POINT. THEREFORE NASA DID NOT INCLUDE IT IN THEIR FMEAS. IOA CONCURS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5509
NASA FMEA #: 05-6-2702-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5509
ITEM: RESISTOR, 1.2K 2W (TO APCA-5)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
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INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-559
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5509A
NASA FMEA #: 05-6-2702-2
SUBSYSTEM: EPD&C
MDAC ID: 5509
ITEM: RESISTOR, 1.2K 2W (TO APCA-5)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-560
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5510
NASA FMEA #: 05-6-2652-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5510
ITEM: SWITCH, TOGGLE SPST (AFT POD VLV LOGIC GRP 1/2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

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REMARKS:

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APPENDIX C
ASSESSMENT WORKSHEET

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-562
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5512
NASA FMEA #: 05-6-2802-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5512
ITEM: RPC, 5A (TO RCS/OMS BC BUS)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-563
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5513
NASA FMEA #: 05-6-2802-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: MDAC
MDAC ID: 5513
ITEM: RPC, 5A (TO RCS/OMS BC BUS)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5514
NASA FMEA #: 05-6-2902-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5514
ITEM: DIODE, 12A (TO RCS/OMS BC BUS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-565
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE: 12/17/87**
**ASSESSMENT ID: EPD&C-5514A**
**NASA FMEA #: 05-6-2902-3**

**SUBSYSTEM:** EPD&C
**MDAC ID:** 5514
**ITEM:** DIODE, 12A (TO RCS/OMS BC BUS)
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88 C-566**
**APPENDIX C**

**ASSESSMENT WORKSHEET**

| ASSESSMENT DATE: | 12/17/87 |
| ASSESSMENT ID:   | EPD&C-5515 |
| NASA FMEA #:     | 05-6-2902-2 |
| NASA DATA:       | |
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| SUBSYSTEM:       | EPD&C |
| MDAC ID:         | 5515 |
| ITEM:            | DIODE, 12A (TO RCS/OMS BC BUS) |
| LEAD ANALYST:    | K. SCHMECKPEPER |

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* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

**REMARKS:**

IOA CONCURS WITH NASA'S SCREEN "A".... THE REVISED OMRSD PROCEDURES WILL DETECT THIS FAILURE MODE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5516
NASA FMEA #: 05-6-2902-2

SUBSYSTEM: EPD&C
MDAC ID: 5516
ITEM: DIODE, 12A (TO RCS/OMS BC BUS)

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "A". THE REVISED OMRSD PROCEDURES WILL DETECT THIS FAILURE MODE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5517
NASA FMEA #: 05-6-2902-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5517
ITEM: DIODE, 12A (TO RCS/OMS BC BUS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-569
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5517A
NASA FMEA #: 05-6-2902-3
NASA ID:

SUBSYSTEM: EPD&C
MDAC ID: 5517
ITEM: DIODE, 12A (TO RCS/OMS BC BUS)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-570
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5518
NASA FMEA #: 05-6-2214-1
NASA DATA: BASELINE [ ] NEW [ X ]
SUBSYSTEM: MDAC
MDAC ID: 5518
ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE MAIN C/A)
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-571
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5518A
NASA FMEA #: 05-6-2214-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5518
ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE MAIN C/A)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-572
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5519
NASA FMEA #: 05-6-2214-3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5519
ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE MAIN C/A)

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-573
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5520
NASA FMEA #: 05-6-2331-1
ASSESSMENT ID: EPD&C-5520
NASA FMEA #: 05-6-2331-1
SUBSYSTEM: EPD&C
MDAC ID: 5520
ITEM: RESISTOR, 1.2K 2W (TO ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-574
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5521
NASA FMEA #: 05-6-2331-1

SUBSYSTEM: EPD&C
MDAC ID: 5521
ITEM: RESISTOR, 1.2K 2W (TO ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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| IOA [ 3 /1R ] | [ P ] | [ F ] | [ P ] | [ X ] |

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

RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-575
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87  
ASSESSMENT ID: EPD&C-5522  
NASA FMEA #: 05-6-2335-1  

SUBSYSTEM: EPD&C  
MDAC ID: 5522  
ITEM: RESISTOR, 5.1K 1/4W TO MDM OF4  

LEAD ANALYST: K. SCHMECKPEPER  

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RECOMMENDATIONS:  (If different from NASA)

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* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5523
NASA FMEA #: 05-6-2335-1

NASA DATA: BASELINE [ ] NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5523
ITEM: RESISTOR, 5.1K 1/4W TO MDM OF4

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 1/01/88  
**ASSESSMENT ID:** EPD&C-5524  
**NASA FMEA #:** 05-6-2213-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5524  
**ITEM:** SWITCH, TOGGLE 3PDT (ESS BUS SOURCE F/C 2)  
**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:** (If different from NASA)

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

* **CIL RETENTION RATIONALE:** (If applicable)

**ADEQUATE** [X]

**INADEQUATE** [ ]

**REMARKS:**

NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND - FUEL CELL TO ESS BUS CONTACT" TO THIS FMEA. IOA CONCURS WITH NASA'S SCREEN "B".
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5524A
NASA FMEA #: 05-6-2213-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5524
ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE F/C 2)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-579
APPENDIX C
ASSESSMENT WORKSHEET

| ASSESSMENT DATE: 1/01/88 | NASA DATA: |
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| NASA FMEA #: 05-6-2213-3 | NEW [ X ] |
| SUBSYSTEM: EPD&C |
| MDAC ID: 5525 |
| ITEM: SWITCH, TOGGLE 3PDT (ESS BUS SOURCE F/C 2) |
| LEAD ANALYST: K. SCHMECKPEPER |

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5526
NASA FMEA #: 05-6-2188-1
SUBSYSTEM: EPD&C
MDAC ID: 5526
ITEM: DIODE, BLOCKING
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88  C-581
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5527
NASA FMEA #: 05-6-2188-2
SUBSYSTEM: EPD&C
MDAC ID: 5527
ITEM: DIODE, BLOCKING
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCENARIO LISTED ON THE CIL, BUT CONSIDERS THIS TO BE AN "INCREDIBLE" CREDIBLE SET OF FAILURES.

REPORT DATE 02/23/88 C-582
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5528
NASA FMEA #: 05-6-2187-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5528
ITEM: DIODE, ISOLATION (TO MPCA-3 - ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)
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REMARKS:

REPORT DATE 02/23/88 C-583
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5529
NASA FMEA #: 05-6-2187-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5529
ITEM: DIODE, ISOLATION (TO MPCA-3 - ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:

REPORT DATE 02/23/88 C-584
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5530
NASA FMEA #: 05-6-2338-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5530
ITEM: RESISTOR, 1.8K 1/4W (TO MDM OF3)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-585
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  NASA DATA:
ASSESSMENT ID: EPD&C-5531  BASELINE [ ]
NASA FMEA #: 05-6-2339-1   NEW [ X ]
SUBSYSTEM: EPD&C
MDAC ID: 5531
ITEM: RESISTOR, 2.2K 1/2W (TO MDM OF3)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-586
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5532
NASA FMEA #: 05-6-2011-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5532
ITEM: RPC, 10A TO MDCA #2 - ESS BUS 2CA

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

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REMARKS:

REPORT DATE 02/23/88 C-587
## APPENDIX C
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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

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**REMARKS:**

**REPORT DATE 02/23/88**

C-588
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/04/87

**ASSESSMENT ID:** EPD&C-5534

**NASA FMEA #:** 05-6-2011-1

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- **NEW:** [ X ]

**SUBSYSTEM:** EPD&C

**MDAC ID:** 5534

**ITEM:** RPC, 10A TO MDCA #2 - ESS BUS 2CA

**LEAD ANALYST:** K. SCHMECKPEPER

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**RECOMMENDATIONS:** (If different from NASA)

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* **CIL RETENTION RATIONALE:** (If applicable)

  ADEQUATE [ ]
  INADEQUATE [ ]

**REMARKS:**

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**REPORT DATE 02/23/88**

C-589
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5535
NASA FMEA #: 05-6-2011-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5535
ITEM: RPC, 10A TO MDCA #2 - ESS BUS 2CA

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

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REMARKS:

REPORT DATE 02/23/88 C-590
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5536
NASA FMEA #: 05-6-2338-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5536
ITEM: RESISTOR, 1.8K 1/4W (TO MDM OF2)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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*CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88 C-591
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5537
NASA FMEA #: 05-6-2339-1

SUBSYSTEM: EPD&C
MDAC ID: 5537
ITEM: RESISTOR, 2.2K 1/2W (TO MDM OF2)

LEAD ANALYST: K. SCHMECKPEPER

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

REPORT DATE 02/23/88 C-592
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5538
NASA FMEA #: 05-6-2187-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5538
ITEM: DIODE, ISOLATION (TO MPCA-1 - ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

Remarks:

REPORT DATE 02/23/88 C-593
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5539
NASA FMEA #: 05-6-2187-2
NASA DATA:
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NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5539
ITEM: DIODE, ISOLATION (TO MPCA-1 - ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5540
NASA FMEA #: 05-6-2188-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5540
ITEM: DIODE, BLOCKING

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH NASA'S SCENARIO LISTED ON THE CIL, BUT CONSIDERS THIS TO BE AN "INCREDIBLE" CREDIBLE SET OF FAILURES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5541
NASA FMEA #: 05-6-2188-1
SUBSYSTEM: EPD&C
MDAC ID: 5541
ITEM: DIODE, BLOCKING
LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-596
ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5542
NASA FMEA #: 05-6-2185-1

SUBSYSTEM: EPD&C
MDAC ID: 5542
ITEM: DIODE, ISOLATION 35A (TO R1A1 PANEL - ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
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REMARKS:

REPORT DATE 02/23/88 C-597
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5543
NASA FMEA #: 05-6-2185-2

SUBSYSTEM: EPD&C
MDAC ID: 5543
ITEM: DIODE, ISOLATION 35A (TO R1A1 PANEL - ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA. IOA CONCURS WITH THE NASA REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5544
NASA FMEA #: 05-6-2186-2
SUBSYSTEM: EPD&C
MDAC ID: 5544
ITEM: DIODE, ISOLATION 35A (ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

IOA CONCURS WITH THE NASA REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-599
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5545
NASA FMEA #: 05-6-2186-1
SUBSYSTEM: EPD&C
MDAC ID: 5545
ITEM: DIODE, ISOLATION 35A (ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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*(ADD/DELETE)*

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-600
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5545A
NASA FMEA #: 05-6-2186-3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5545
ITEM: DIODE, ISOLATION 35A (ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]

Inadequate [ ]

REMARKS:

REPORT DATE 02/23/88 C-601
### APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/04/87  
**ASSESSMENT ID:** EPD&C-5546  
**NASA FMEA #:** 05-6-2186-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5546  
**ITEM:** DIODE, ISOLATION 35A (ESS BUS 2CA)  
**LEAD ANALYST:** K. SCHMECKPEPER

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**RECOMMENDATIONS:** (If different from NASA)  
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* CIL RETENTION RATIONALE: (If applicable)  

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**REMARKS:**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5546A
NASA FMEA #: 05-6-2186-3
NASA DATA:
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SUBSYSTEM: EPD&C
MDAC ID: 5546
ITEM: DIODE, ISOLATION 35A (ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88 C-603
APPENDIX C  
ASSESSMENT WORKSHEET  

ASSESSMENT DATE: 12/15/87  
ASSESSMENT ID: EPD&C-5547  
NASA FMEA #: 05-6-2186-2  

NASA DATA:  
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NEW [ ]  

SUBSYSTEM: EPD&C  
MDAC ID: 5547  
ITEM: DIODE, ISOLATION 35A (ESS BUS 2CA)  

LEAD ANALYST: K. SCHMECKPEPER  

ASSESSMENT:  
CRITICALITY  
FLIGHT  
HDW/FUNC  

REDUNDANCY SCREENS  
A  
B  
C  

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

RECOMMENDATIONS: (If different from NASA)  
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* CIL RETENTION RATIONALE: (If applicable)  
ADEQUATE [ X ]  
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REMARKS:  
IOA CONCURS WITH THE NASA REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/15/87
ASSESSMENT ID: EPD&C-5548
NASA FMEA #: 05-6-2185-2

SUBSYSTEM: EPD&C
MDAC ID: 5548
ITEM: DIODE, ISOLATION 35A (ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
NASA HAS ADDED THE FAILURE MODE "SHORTS TO GROUND" TO THIS FMEA.
IOA CONCURS WITH THE NASA REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5549
NASA FMEA #: 05-6-2185-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5549
ITEM: DIODE, ISOLATION 35A (ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:

REPORT DATE 02/23/88 C-606
### APPENDIX C
ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5550  
**NASA FMEA #:** 05-6-2603-1  

**SUBSYSTEM:** MDAC  
**MDAC ID:** EPD&C  
**ITEM:** 5550  
**ITEM:** FUSE, 10A TO ESS BUS 2CA  

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:** CRITICALITY REDUNDANCY SCREENS

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

- ADEQUATE [X]  
- INADEQUATE []

**REMARKS:**

**REPORT DATE 02/23/88**  
**C-607**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5551
NASA ID#: 05-6-2603-1
SUBSYSTEM: EPD&C
MDAC ID: 5551
ITEM: FUSE, 10A TO ESS BUS 2CA
LEAD ANALYST: K. SCHMECKPEPER
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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

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REMARKS:

REPORT DATE 02/23/88 C-608
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

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**MDAC ID:** 5552  
**ITEM:** FUSE, 7.5A  
**LEAD ANALYST:** K. SCHMECKPEPER

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**RECOMMENDATIONS:** (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]  
INADEQUATE [ ]

**REMARKS:**  
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88  C-609
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5553
NASA FMEA #: 05-6-2256-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5553
ITEM: FUSE, 3A TO SIG COND/MDM MONITOR

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/01/88
ASSESSMENT ID: EPD&C-5554
NASA FMEA #: NEW # UNKNOWN
SUBSYSTEM: EPD&C
MDAC ID: 5554
ITEM: FUSE, 15A TO APCA-5
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable) ADEQUATE [ ] INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION AFTER FURTHER ANALYSIS OF THE CIRCUIT.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5555
NASA FMEA #: 05-6-2300-1
DATE: 6/06/87
SUBSYSTEM: EPD&C
MDAC ID: 5555
ITEM: FUSE, 5A
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-612
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

REPORT DATE 02/23/88 C-613
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5557
NASA FMEA #: 05-6-2276-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5557
ITEM: FUSE, 15A TO MPCA-2

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S REEVALUATION DUE TO FUEL CELL SAFING CONCERNS.

REPORT DATE 02/23/88 C-614
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5558
NASA FMEA #: 05-6-2275-1
SUBSYSTEM: EPD&C
MDAC ID: 5558
ITEM: FUSE, 10A TO FPCA-2 & FLCA-2
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

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

RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-615
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5559
NASA FMEA #: 05-6-2279-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5559
ITEM: FUSE, 10A TO 013 & R15 PANELS

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-616
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/13/87
ASSESSMENT ID: EPD&C-5560
NASA FMEA #: 05-6-2605-1
NASA DATA: BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5560
ITEM: FUSE, 7.5A

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "B".

REPORT DATE 02/23/88 C-617
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5561
NASA FMEA #: NOT FOUND

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: EPD&C
MDAC ID: 5561
ITEM: RESISTOR, 5.1K 1/4W (TO ESS 2CA MONITOR)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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

REMARKS:
THIS COMPONENT HAS NO CONNECTION TO FLIGHT HARDWARE OR IS A TEST POINT. THEREFORE NASA DID NOT INCLUDE IT IN THEIR FMEAS. IOA CONCURS.

REPORT DATE 02/23/88 C-618
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5562
NASA FMEA #: NOT FOUND

SUBSYSTEM: EPD&C
MDAC ID: 5562
ITEM: RESISTOR, 5.1K (ESS BUS 2CA TEST POINT)

LEAD ANALYST: K. SCHMECKPEPER

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IOA: [ 3 / 3 ] [ ] [ ] [ ] [ ] [ ]

COMPARISON: [ N / N ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS COMPONENT HAS NO CONNECTION TO FLIGHT HARDWARE OR IS A TEST POINT. THEREFORE NASA DID NOT INCLUDE IT IN THEIR FMEAS. IOA CONCURS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5563
NASA FMEA #: 05-6-2482-1

SUBSYSTEM: EPD&C
MDAC ID: 5563
ITEM: HYBRID DRIVER TYPE I (ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

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(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-620
**APPENDIX C**
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5564  
**NASA FMEA #:** 05-6-2482-1  
**NASA DATA:**  
NASA [ ] [ ] [ ]  
BASELINE [ ]  
NEW [ X ]

**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5564  
**ITEM:** HYBRID DRIVER TYPE I (ESS BUS 2CA)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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**RECOMMENDATIONS:**  
(If different from NASA)

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* **CIL RETENTION RATIONALE:**  
(If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

**REMARKS:**

**REPORT DATE 02/23/88**  
C-621
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5565
NASA FMEA #: 05-6-2385-1

SUBSYSTEM: EPD&C
MDAC ID: 5565
ITEM: RPC, 15A (TO ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5566
NASA FMEA #: 05-6-2385-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5566
ITEM: RPC, 15A (TO ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)
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REMARKS:

REPORT DATE 02/23/88 C-623
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5567
NASA FMEA #: 05-6-2191-1
SUBSYSTEM: EPD&C
MDAC ID: 5567
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-624
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5567A
NASA FMEA #: 05-6-2191-3

SUBSYSTEM: EPD&C
MDAC ID: 5567
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

Adequate [ X ]
Inadequate [ ]

REMARKS:

REPORT DATE 02/23/88 C-625
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5568
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ITEM:
DIODE, ISOLATION 35A (TO ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88  C-626
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5569
NASA FMEA #: 05-6-2191-2
SUBSYSTEM: EPD&C
MDAC ID: 5569
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

EPD&C 5569
DIODE, ISOLATION 35A (TO ESS BUS 2CA)

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

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

RECOMMENDATIONS: (If different from NASA)
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(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA DUE TO CONCERNS ABOUT INADVERTENT POWERING OF THE PREFLIGHT TEST BUS.

REPORT DATE 02/23/88 C-627
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/04/87
ASSESSMENT ID: EPD&C-5570
NASA FMEA #: 05-6-2191-1
SUBSYSTEM: EPD&C
MDAC ID: 5570
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 2CA)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5570A
NASA FMEA #: 05-6-2191-3
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5570
ITEM: DIODE, ISOLATION 35A (TO ESS BUS 2CA)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
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REMARKS:

REPORT DATE 02/23/88 C-629
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/19/87
ASSESSMENT ID: EPD&C-5571
NASA FMEA #: 05-6-2335-1
SUBSYSTEM: EPD&C
MDAC ID: 5571
ITEM: RESISTOR, 5.1K (ESS BUS 2CA VOLTAGE)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88 C-630
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87  NASA DATA:
ASSESSMENT ID: EPD&C-5572  BASELINE [ ]
NASA FMEA #: 05-6-2291-1  NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5572
ITEM: FUSE, 7.5A TO ALCA-2 (MPS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-631
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5573
NASA FMEA #: 05-6-2702-1

SUBSYSTEM: EPD&C
MDAC ID: 5573
ITEM: RESISTOR, 1.2K 2W (TO APCA-6)

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
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REMARKS:

REPORT DATE 02/23/88 C-632
APPENDIX C
ASSessment Worksheet

ASSESSMENT DATE: 12/08/87
ASSESSMENT ID: EPD&C-5573A
NASA FMEA #: 05-6-2702-2

SUBSYSTEM: EPD&C
MDAC ID: 5573
ITEM: RESISTOR, 1.2K 2W (TO APCA-6)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88 C-633
## APPENDIX C

### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 6/06/87  
**ASSESSMENT ID:** EPD&C-5574  
**NASA FMEA #:** 05-6-2652-1  
**SUBSYSTEM:** EPD&C  
**MDAC ID:** 5574  
**ITEM:** SWITCH, TOGGLE SPST (AFT POD VLV LOGIC GRP 2/3)  
**LEAD ANALYST:** K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

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### REMARKS:

REPORT DATE 02/23/88 C-634
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5575
NASA FMEA #: 05-6-2652-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: MDAC
MDAC ID: 5575
ITEM: SWITCH, TOGGLE SPST (AFT POD VLV LOGIC GRP 2/3)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)
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REMARKS:

REPORT DATE 02/23/88  C-635
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5576
NASA FMEA #: 05-6-2802-1
SUBSYSTEM: EPD&C
MDAC ID: 5576
ITEM: RPC, 5A (TO RCS/OMS CA BUS)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ x ]
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REMARKS:

REPORT DATE 02/23/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5577
NASA FMEA #: 05-6-2802-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5577
ITEM: RPC, 5A (TO RCS/OMS CA BUS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
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REMARKS:

REPORT DATE 02/23/88 C-637
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5578
NASA FMEA #: 05-6-2902-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5578
ITEM: DIODE, 12A (TO RCS/OMS CA BUS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88 C-638
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5578A
NASA FMEA #: 05-6-2902-3
SUBSYSTEM: EPD&C
MDAC ID: 5578
ITEM: DIODE, 12A (TO RCS/OMS CA BUS)
LEAD ANALYST: K. SCHMECKPEPER

NASA DATA:
BASELINE [ ]
NEW [ X ]

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RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
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REMARKS:

REPORT DATE 02/23/88 C-639
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5579
NASA FMEA #: 05-6-2902-2

SUBSYSTEM: EPD&C
MDAC ID: 5579
ITEM: DIODE, 12A (TO RCS/OMS CA BUS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "A". THE REVISED OMRSD PROCEDURES WILL DETECT THIS FAILURE MODE.

REPORT DATE 02/23/88 C-640
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## ASSESSMENT WORKSHEET

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**SUBSYSTEM:** MDAC

**MDAC ID:** 5580

**ITEM:** DIODE, 12A (TO RCS/OMS CA BUS)

**LEAD ANALYST:** K. SCHMECKPEPER

**ASSESSMENT:**

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]

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**REMARKS:**

IOA CONCURS WITH NASA'S SCREEN "A". THE REVISED OMRSD PROCEDURES WILL DETECT THIS FAILURE MODE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5581
NASA FMEA #: 05-6-2902-1
ASSESSMENT ID: EPD&C
MDAC ID: 5581
ITEM: DIODE, 12A (TO RCS/OMS CA BUS)
LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-642
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5581A
NASA FMEA #: 05-6-2902-3

NASA DATA: BASELINE [ ] NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5581
ITEM: DIODE, 12A (TO RCS/OMS CA BUS)

LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
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REMARKS:

REPORT DATE 02/23/88 C-643
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5582
NASA FMEA #: 05-6-2902-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5582
ITEM: DIODE, 12A (TO RCS/OMS AB BUS)

LEAD ANALYST: K. SCHMECKPEPER

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

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

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

RECOMMENDATIONS: (If different from NASA)
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* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88   C-644
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5582A
NASA FMEA #: 05-6-2902-3
NASA ID: EPD&C-5582
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LEAD ANALYST: K. SCHMECKPEPER

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88
C-645
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5583
NASA FMEA #: 05-6-2902-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5583
ITEM: DIODE, 12A (TO RCS/OMS AB BUS)

LEAD ANALYST: K. SCHMECKPEPER

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "A". THE REVISED OMRSDF PROCEDURES WILL DETECT THIS FAILURE MODE.
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87  
ASSESSMENT ID: EPD&C-5584  
NASA FMEA #: 05-6-2902-2  

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: EPD&C  
MDAC ID: 5584  
ITEM: DIODE, 12A (TO RCS/OMS AB BUS)  

LEAD ANALYST: K. SCHMECKPEPER

ASSESSMENT:

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

RECOMMENDATIONS:  (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
IOA CONCURS WITH NASA'S SCREEN "A". THE REVISED OMRSD PROCEDURES WILL DETECT THIS FAILURE MODE.

REPORT DATE 02/23/88  C-647
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5585
NASA FMEA #: 05-6-2902-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: EPD&C
MDAC ID: 5585
ITEM: DIODE, 12A (TO RCS/OMS AB BUS)

LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

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* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

REPORT DATE 02/23/88  C-648
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 12/17/87
ASSESSMENT ID: EPD&C-5585A
NASA FMEA #: 05-6-2902-3
SUBSYSTEM: EPD&C
MDAC ID: 5585
ITEM: DIODE, 12A (TO RCS/OMS AB BUS)
LEAD ANALYST: K. SCHMECKPEPER

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RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ X ]
INADEQUATE [ ]

REMARKS:

C-8

REPORT DATE 02/23/88 C-649
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 6/06/87
ASSESSMENT ID: EPD&C-5586
NASA FMEA #: 05-6-2802-1

SUBSYSTEM: EPD&C
MDAC ID: 5586
ITEM: RPC, 5A (TO RCS/OMS AB BUS)

LEAD ANALYST: K. SCHMECKPEPER

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

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] (ADD/DELETE)

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

REMARKS:

REPORT DATE 02/23/88 C-650