INDEPENDENT ORBITER ASSESSMENT

ASSESSMENT
OF THE
REMOTE MANIPULATOR
SYSTEM

26 FEBRUARY 1988

MCDONNELL DOUGLAS ASTRONAUTICS COMPANY
HOUSTON DIVISION

SPACE TRANSPORTATION SYSTEM ENGINEERING AND OPERATIONS SUPPORT

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INDEPENDENT ORBITER ASSESSMENT ASSESSMENT OF THE REMOTE MANIPULATOR SYSTEM FMEA/CIL

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CONTENTS

List of Figures

List of Tables

Independent Orbiter Assessment
Assessment of the Remote Manipulator System FMEA/CIL

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

The IOA effort first completed an analysis of the Remote Manipulator System (RMS) 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 RMS hardware.

The IOA product for the RMS analysis consisted of six hundred four failure mode "worksheets" that resulted in four hundred fifty-eight potential critical items being identified. Comparison was made to the NASA baseline (as of September 11, 1986) which consisted of four hundred fifty FMEAs and three hundred twenty-one CIL items. The comparison determined if there were any results which had been found by the IOA but were not in the NASA baseline. This comparison produced agreement on all but one hundred fifty-four FMEAs which caused differences in one hundred thirty seven CIL items. Figure 1 presents an overview of the original assessment and the final resolution that was arrived at between NASA and IOA personnel. The sixty-nine issues that still exist all have a common source which is NASA's identifying RMS software routines as unlike redundancy. This allowed the identified sixty-nine FMEAs to be classified as 2/1R. IOA feels that these software routines do not represent unlike redundancy and the sixty-nine FMEAs should be classified as 1/1 criticality.

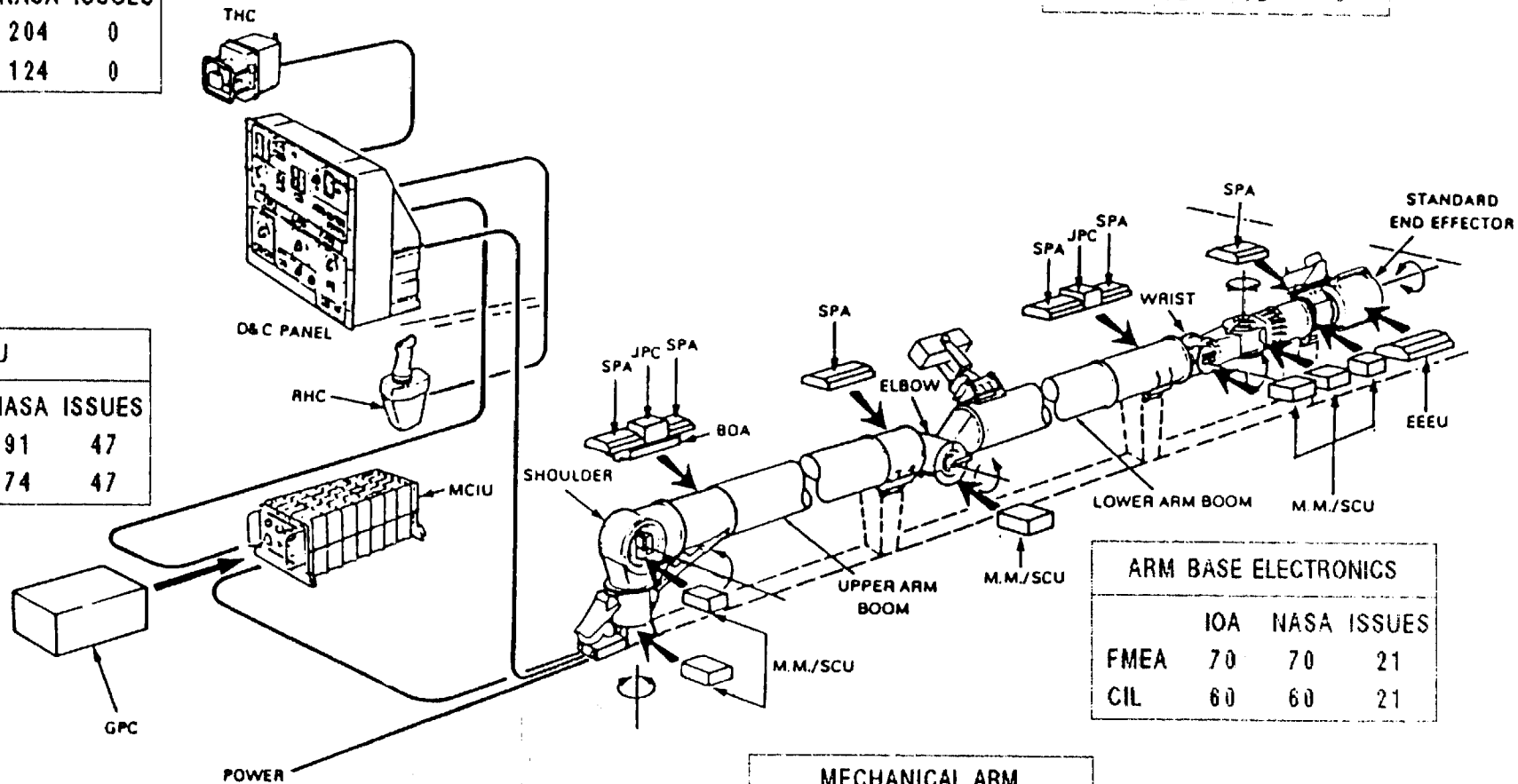
RMS ASSESSMENT OVERVIEW

RMS ASSESSMENT SUMMARY			
	IOA	NASA	ISSUES
FMEA	453	453	69
CIL	324	324	69

DISPLAY & CONTROL			
	IOA	NASA	ISSUES
FMEA	204	204	0
CIL	124	124	0

END EFFECTOR			
	IOA	NASA	ISSUES
FMEA	77	77	0
CIL	62	62	0

MCIU			
	IOA	NASA	ISSUES
FMEA	91	91	47
CIL	74	74	47



ARM BASE ELECTRONICS			
	IOA	NASA	ISSUES
FMEA	70	70	21
CIL	60	60	21

MECHANICAL ARM			
	IOA	NASA	ISSUES
FMEA	11	11	1
CIL	4	4	1

FIGURE 1 - RMS FMEA/CIL ASSESSMENT OVERVIEW

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 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 available drawings, schematics and documents 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 NASA and Prime Contractor FMEA/CIL reevaluation results. 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 FMEAs/CILs that is to be performed and documented at a later date.

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

3.0 SYSTEM DESCRIPTION

3.1 Design and Function

The RMS is a major component of the Payload Deployment and Recovery System (PDRS) of the Space Shuttle Orbiter. It is used primarily for the deployment of payloads in orbit or the retrieval of payloads from orbit for return to earth or redeployment in orbit. The RMS is also used in conjunction with the Manipulator Foot Restraint (MFR) for various Extra Vehicular Activity (EVA) tasks.

The RMS is an Anthropomorphic Man-machine System that consists of six servocontrolled rotary joints and an end effector all connected together by structural boom members. The RMS is attached to the orbiter longeron (port, starboard, or both) through a roll-out mechanism. The arm is operated by a crew member using direct viewing and closed circuit television (CCTV), from the Display and Control (D&C) station located on the aft flight deck.

The primary components of the RMS are:

- Backup Drive Amplifier (BDA)
- Display and Control Panel (D&C)
- End Effector (EE)
- End Effector Electronics Unit (EEU)
- Joint Power Conditioner (JPC)
- Manipulator Controller Interface Unit (MCIU)
- Motor Module/Signal Conditioning Unit (MM/SCU)
- Rotational Hand Controller (RHC)
- Servo Power Amplifier (SPA)
- Translation Hand Controller (THC)
- Thermal Protection Kit (TPK)

3.1.1 Backup Drive Amplifier - There is only one BDA for each RMS and it is located in the shoulder joint's electronics housing. The BDA is a backup unit to any of the SPAs, in the event of a SPA failure or its associated power source (JPC). The main functions of the BDA are to provide drive to any one joint motor as selected from the D&C panel and to provide for power conditioning from the backup +28 V bus.

3.1.2 Display and Control - The D&C panel provides primary/backup control on display functions, and contains D&C electronics and Orbiter/THC/RHC wiring interfaces. All of the displays and the majority of the controls are used to control and monitor the RMS in its prime modes of operation. Three control functions, located on a separate section of the D&C panel, form the backup channel of the D&C panel and use separate wiring and connectors.

3.1.3 End Effector - The standard EE is designed to effect the capture or release of a previously captured payload by means of capture/release and rigidize/derigidize operations. The capture/release sequences are achieved by rotating internal rings located at the open end of the EE body to open or close three wire snares around the payload grapple fixture. The rigidize/derigidize sequences withdraw the snare assembly towards the rear of the EE body thereby tensioning the snare wires and pulling the snared payload into full and keyed orientation and contact with the end effector, or extend the snare assembly to release tension on the payload. The EE consists essentially of the EE body, prime channel drive chain, EEEU, EE wiring harness, Backup release system, and seven microswitches for status of the EE.

3.1.4 End Effector Electronics Unit - The EEEU is located within the EE body and controls and monitors the operation of the EE as commanded by the operator from the D&C panel. This includes power conditioning, command decoding, detects failures in decoding and commutator logic, outputs signal flags, and conditions the EE status signals which are sent to the MCIU via the data bus.

3.1.5 Joint Power Conditioner - There are two JPCs per manipulator arm. One of which is located in the shoulder joint electronics compartment serving the shoulder and elbow joints, and the second is located in the wrist electronics compartment serving the three wrist joints. The JPCs convert the +28 V dc bus to provide secondary regulated supply voltages of +15 V and +10.1 V dc to the SPA's motor commutators and position encoders. Overvoltage and undervoltage protection circuits are provided to shut off the JPC if preset threshold values are exceeded or not achieved.

3.1.6 Manipulator Controller Interface Unit - The MCIU handles the exchange of information between the Orbiter GPC and the RMS and other entities of the system. The MCIU performs manipulation of data but does not have any significant data processing function. In addition to GPC/MCIU communication the MCIU has data communication with the Arm Based Electronics (ABE) and the D&C, does data gathering from the THC, RHC, and temperature sensors, does hard wired fault detection and annunciation, performs auto safing, brake drive control, auto braking, EE drive commands in EE auto mode, and power conditioning for MCIU and D&C.

3.1.7 Motor Module/Signal Conditioning Unit - The Motor Module (MM) functions as a servo motor providing the mechanical drive for joint movement in response to commands from the MCIU via the SPA, and in response to the feedback signal from the tachometer. This tachometer feedback signal is low level and is amplified by the SCU for use by the MM.

3.1.8 Rotational Hand Controller - The RHC is a three axis manual controller which provides electrical control signals for the RMS point of resolution (POR) in the pitch, yaw, and roll degrees of freedom. These control signals are proportional to the manual input displacement of the RHC handgrip in each of the three mutually perpendicular axis. The RHC handgrip also has three secondary switch inputs for rate hold, vernier/coarse, and capture/release. The gimbal assembly is the main mechanism that obtains the manual commands input into the handgrip. Transducers provide the appropriate signals to the MCIU.

3.1.9 Servo Power Amplifier - Each RMS has six SPAs, one for each joint. Each SPA provides a drive signal to it's joint motor in response to MCIU control signals or direct drive commands from the D&C panel. The SPA also provides an excitation signal to the tachometer, transmits data back to the MCIU, releases the joint brake in response to a MCIU command, performs self-testing, switches the motor drive from MDA to BDA on command, and transmits external flags to the MCIU.

3.1.10 Translation Hand Controller - The THC allows the operator to control the three-dimensional linear motion of the end effector by means of manual inputs through the controller handgrip. The POR velocity commands are proportional to the deflection of the handle. Three independent electrical signals are provided, by the THCs gimbal assembly transducers, to the MCIU, one for each control axis. This gimbal mechanism, located within the THC assembly, is the main mechanism for obtaining the X, Y, and Z axis commands.

3.1.11 Thermal Protection Kit - The RMS uses active and passive thermal control systems both to keep the RMS within proper operating temperatures and to isolate the manipulator arm from the space environment. This TPK essentially consists of thermal blankets, white paint, heaters and thermostats, and thermistors. The thermal blankets primarily provide the space environment isolation function. The white paint minimizes external heat input while maximizing heat radiation due to internal dissipation of electronics. The heaters and thermostats control the temperature within limits while the thermistors provide the temperature monitoring function.

3.2 Interfaces and Locations

The components of the RMS are located on the aft flight deck of the crew compartment and within the payload bay of the Orbiter. The items in the crew compartment are the RHC, THC, D&C Panel, MCIU and the GPC. The manipulator arm, SPAs, JPCs, BDA, MM/SCU, EE, and EEEU are located in the payload bay along the port longeron (or starboard longeron or both).

3.3 Hierarchy

Figures 2 through 7 illustrate the hierarchy of the RMS components and their corresponding subcomponents.

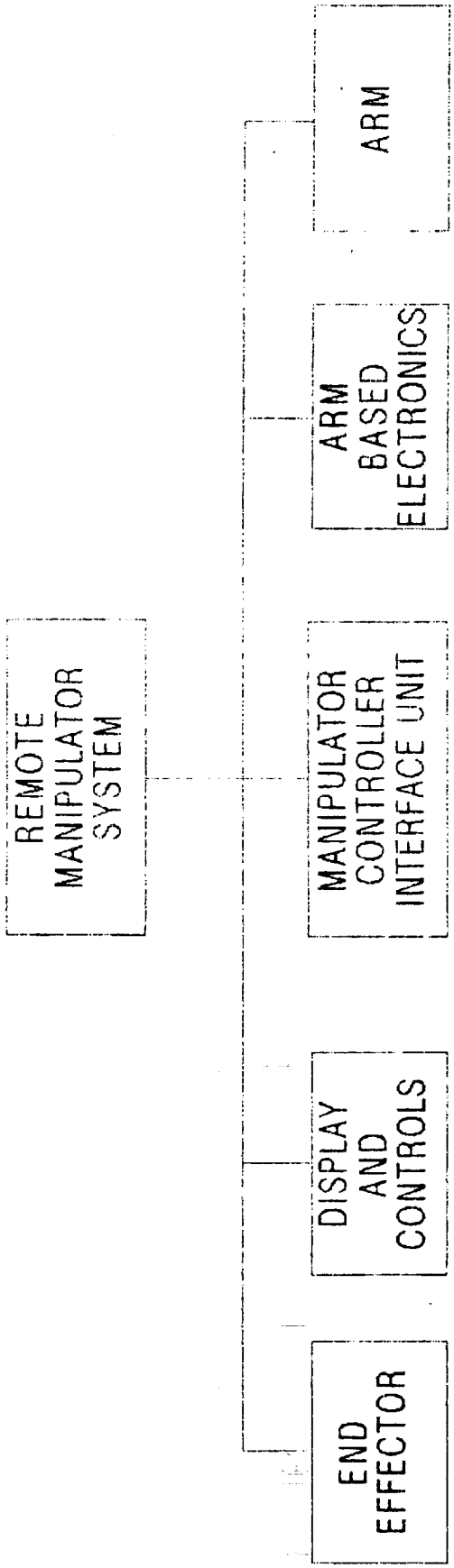


FIGURE 2 - RMS SUBSYSTEM OVERVIEW

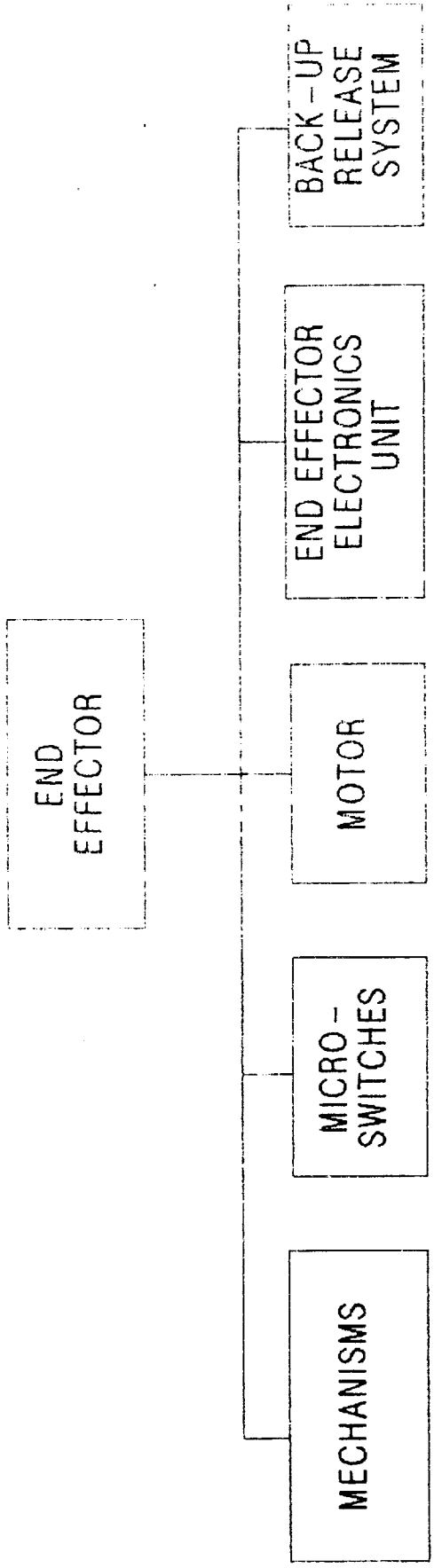


FIGURE 3 - END EFFECTOR SUBCOMPONENTS

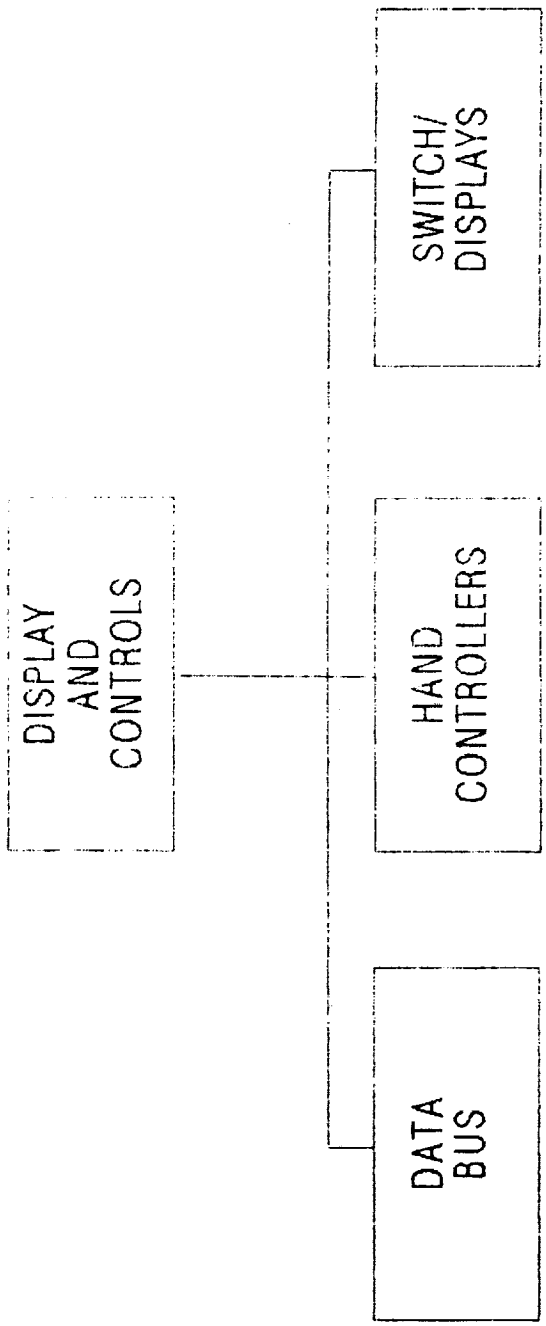


FIGURE 4 - DISPLAY AND CONTROLS PANEL SUBCOMPONENTS

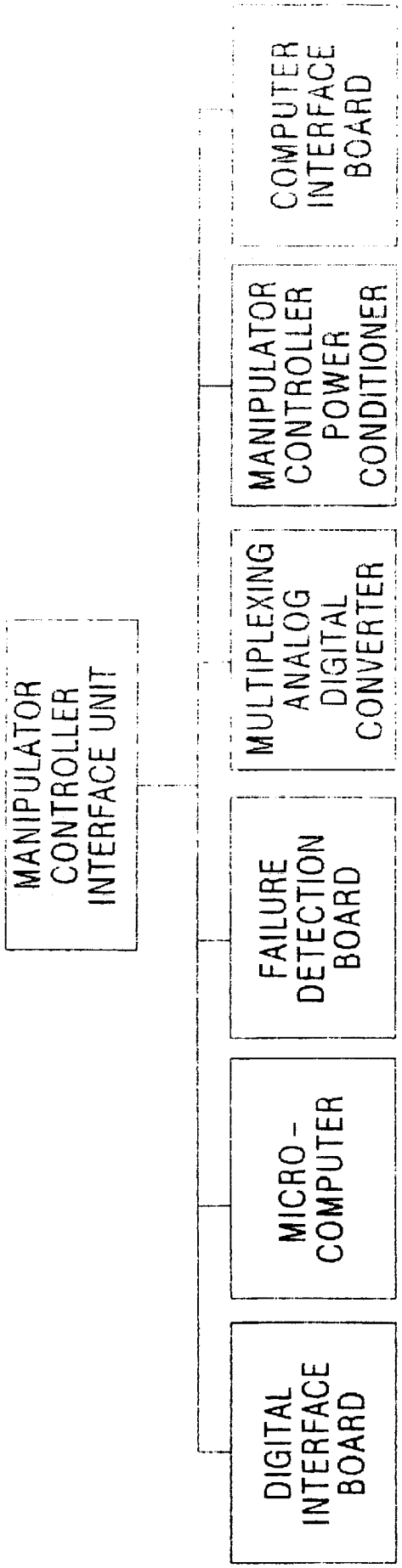


FIGURE 5 - MANIPULATOR CONTROLLER INTERFACE UNIT SUBCOMPONENTS

FIGURE 6 - ARM BASED ELECTRONICS SUBCOMPONENTS

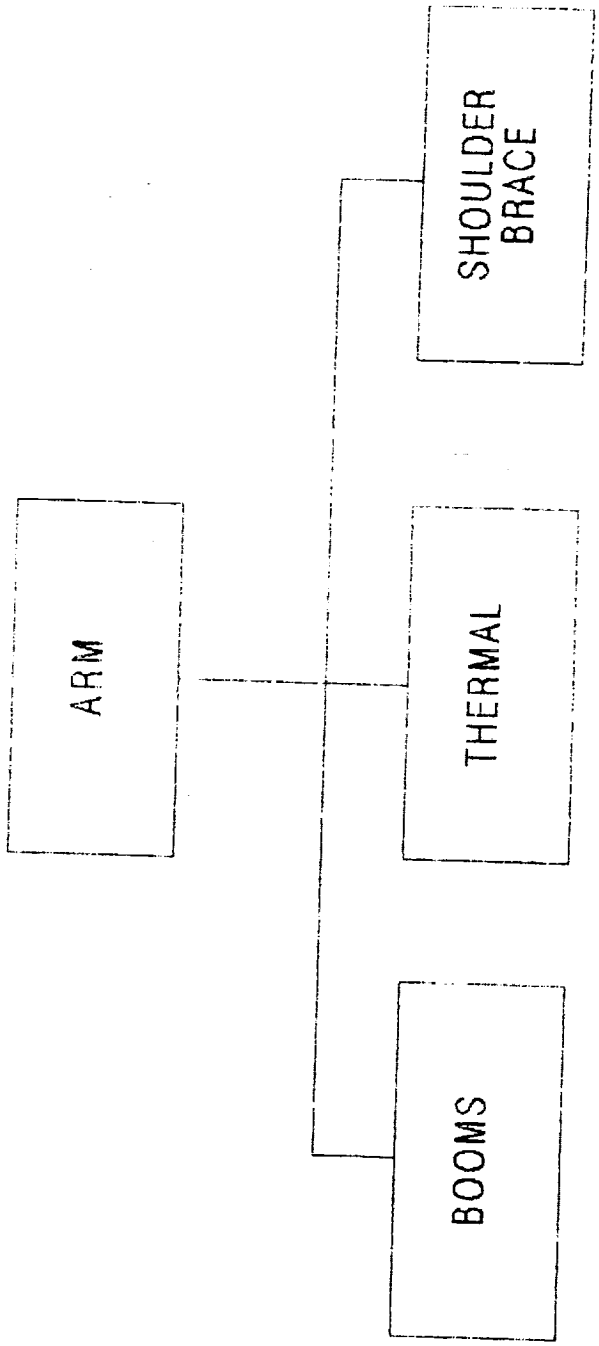


FIGURE 7 - ARM SUBCOMPONENTS

4.0 ASSESSMENT RESULTS

The IOA analysis of the RMS hardware initially generated five hundred seventy-four failure mode worksheets and identified four hundred thirteen Potential Critical Items (PCIs) before starting the assessment process. Ninety-three additional failure mode analyses worksheets were generated. To match additional failures identified by NASA but not identified by IOA. This IOA baseline of six hundred sixty-seven FMEAs was then compared to the proposed NASA Post 51-L baseline of four hundred fifty FMEAs and three hundred twenty-one CIL items, which was generated using the Rockwell 100-2G FMEA/CIL instructions. Upon completion of the assessment, five hundred thirteen of the six hundred sixty-seven FMEAs were in agreement. Of the one hundred fifty-four that remained, sixty-nine were based on using software as a redundant system and the remaining eighty five FMEAs were resolved with the NASA subsystem manager.

In summary all failures identified by NASA and IOA were assessed and all were found within the new NASA baseline of four hundred fifty-three FMEAs. NASA allowed multiple failures to be recorded on a single FMEA which accounts for the lower number of FMEAs than the IOA analysis which allowed only a single failure per FMEA. The same holds true for the CIL resolution. The sixty-nine issues are based on the use of software routines as unlike redundancy. IOA recommends that these sixty-nine FMEAs be upgraded from their present 2/1R criticality to 1/1 criticality because they represent uncommanded motion.

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

Table I Summary of IOA FMEA Assessment

Component	NASA	IOA	Issues
D&C	204	204	0
ABE	70	70	21
MCIU	91	91	47
EE	77	77	0
MECH ARM	11	11	1
TOTAL	453	453	69

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

Table II Summary of IOA CIL Assessment

Component	NASA	IOA	Issues
D&C	124	124	0
ABE	60	60	21
MCIU	74	74	47
EE	62	62	0
MECH ARM	4	4	1
TOTAL	324	324	69

Appendix C presents the detailed assessment worksheets for each failure mode identified and assessed. Appendix D highlights the NASA Critical Items and corresponding IOA worksheet ID. Appendix E contains the IOA analysis worksheets that were used to assess the NASA FMEA/CIL. Appendix F provides a cross reference between the NASA FMEA and corresponding IOA worksheet(s). IOA recommendations are also summarized.

Table III presents a summary of the IOA recommended failure criticalities for the Post 51-L FMEA baseline. Further discussion of each of these subdivisions and the applicable failure modes is provided in subsequent paragraphs. All six hundred sixty-seven failure criticalities are contained in the NASA baseline of four hundred fifty-three FMEAs.

TABLE III Summary of IOA Recommended Failure Criticalities

Criticality	1/1	2/1R	2/2	3/1R	3/2R	3/3	TOTAL
D&C	83	54	21	22	12	132	324
ABE	77	26	3	3	0	14	123
MCIU	51	51	0	1	0	7	110
EE	68	5	0	3	0	21	97
MECH ARM	2	0	3	3	0	5	13
TOTAL	281	136	27	32	12	179	667

Of the failure modes analyzed, three hundred twenty-four were determined to be critical items. A summary of the IOA recommended critical items is presented in Table IV.

TABLE IV
Summary of IOA
Recommended Critical Items

	TOTAL
D&C	124
ABE	60
MCIU	74
EE	62
MECH ARM	4
TOTAL	324

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

TABLE V IOA Worksheet Numbers

Component	IOA ID Number
D&C	101 to 368, 20001 to 20040, 20369 to 20383
ABE	401 to 505, 20506 to 20523
MCIU	601 to 698, 20699 to 20711
EE	801 to 892, 20893 to 20897
MECH ARM	901 to 911, 20912 to 20913

4.1 Results - Final

The results of the RMS assessment are that one hundred fifty-four issues were identified. Eighty-five of these were resolved with the NASA subsystem manager. Of these eighty-five issues, sixty-four were resolved without change to the baseline. Twenty-one failure modes were added to the FMEA baseline. Six IOA failure modes were combined, resulting in three new FMEAs and three new CIL items. Fifteen IOA failure modes were added as additional causes to existing FMEAs. The sixty-nine IOA RMS issues that remain open concern the difference in criticalities due to software routines being classified as unlike redundancy.

RMS OPEN ISSUES

IOA RECOMMENDS THESE FMEAs BE UPGRADED TO 1/1 CRITICALITY.

FMEA	CRIT	FMEA	CRIT	FMEA	CRIT	FMEA	CRIT
1640	2/1R	1890	2/1R	2440	2/1R	2700	2/1R
1650	2/1R	1970	2/1R	2450	2/1R	2790	2/1R
1660	2/1R	1990	2/1R	2460	2/1R	2800	2/1R
1670	2/1R	2000	2/1R	2470	2/1R	2910	2/1R
1680	2/1R	2010	2/1R	2480	2/1R	2950	2/1R
1690	2/1R	2020	2/1R	2490	2/1R	3010	2/1R
1700	2/1R	2040	2/1R	2500	2/1R	3170	2/1R
1710	2/1R	2050	2/1R	2510	2/1R	3180	2/1R
1720	2/1R	2060	2/1R	2540	2/1R	3220 (2)	2/1R
1730 (2)	2/1R	2340 (2)	2/1R	2570	2/1R	4020 (4)	2/1RA
1740	2/1R	2350 (2)	2/1R	2600 (2)	2/1R	4030	2/1R
1760	2/1R	2360	2/1R	2620 (2)	2/1R	4040	2/1RA
1770	2/1R	2370	2/1R	2630	2/1R	4130 (2)	2/1R
1780	2/1R	2380	2/1R	2640	2/1R		
1790	2/1R	2400	2/1R	2650	2/1R		
1800	2/1R	2410	2/1R	2670	2/1R		
1830 (2)	2/1R	2420	2/1R	2680	2/1R		
1840 (2)	2/1R	2430	2/1R	2690	2/1R		

Figure 8 - RMS OPEN ISSUES

5.0 REFERENCES

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

1. Space Shuttle Programs Orbiter Avionics Software OPS Detailed Design Specification, Vol. III - Applications Part 2 - System Management, 12/20/83

2. SPAR/RMS/PA.1067, Issue A

3. PDRS Console Handbook, Vol. II, 3/21/84

4. JSC-11174, Space Shuttle Systems Handbook, Rev. C

5. SPAR Wirelists and Schematics (33)

6. Analysis of the Remote Manipulator Subsystem, MDAC-ES 1.0-WP-VA86001-16, 1/12/87

APPENDIX A
ACRONYMS

ABE - Arm Based Electronics
AC - Alternating Current
AOA - Abort Once Around
APU - Auxiliary Power Unit
ASSY - Assembly
ATO - Abort to Orbit
BFS - Backup Flight System
BOA - Backup Drive Amplifier
CIL - Critical Items List
CIRC - Circulation
CNTL - Control
CRIT - Criticality
CRT - Cathode Ray Tube
C&W - Caution and Warning System
DC - direct current
DISTR - Distribution
DPS - Data Processing System
DU - Display Unit
D&C - Display & Control
EE - End Effector
EEEU - End Effector Electronics Unit
EPD&C - Electrical Power Distribution and Control
F - Functional
FA - Flight Aft
FF - Flight Forward
FM - Failure Mode
FMEA - Failure Mode and Effects Analysis
GFE - Government Furnished Equipment
GN2 - Gaseous Nitrogen
GPC - General Purpose Computer
GPM - Gallons Per Minute
GSE - Ground Support Equipment
HW - Hardware
HYD - Hydraulics
H2O - Water
IOA - Independent Orbiter Assessment
JPC - Joint Power Conditioner
JSC - Johnson Space Center
LCA - Load Control Assembly
LH2 - Liquid Hydrogen
LO2 - Liquid Oxygen
MCIU - Manipulator Controller Interface Unit
MDAC - McDonnell Douglas Astronautics Company
MDM - Multiplexer/Demultiplexer
MEC - Main Engine Controller
MN - Main
MN/SCU - Motor Module/Signal Conditioning Unit
MONIT - Monitoring
MPS - Main Propulsion System

ACRONYMS

NA	- Not Applicable
NASA	- National Aeronautics and Space Administration
NSTS	- National Space Transportation System
OMRSD	- Operational Maintenance Requirements and Specifications Document
PBI	- Push Button Indicator
PCA	- Power Control Assembly
PCI	- Potential Critical Item
PDRS	- Payload Deployment and Recovery System
POR	- Point of Resolution
PSI	- Pounds Per Square Inch
RHC	- Rotation Hand Controller
RI	- Rockwell International
RM	- Redundancy Management
RMS	- Remote Manipulator System
RPC	- Remote Power Controller
RTLS	- Return to Launch Site
SM	- Systems Management
SPA	- Servopower Amplifier
SRB	- Solid Rocket Booster
SSME	- Space Shuttle Main Engine
STS	- Space Transportation System
SW	- Software
TAL	- Transatlantic Abort Landing
TD	- Touch Down
THC	- Translation Hand Controller
TPK	- Thermal Protection Kit
TVC	- Thrust Vector Control
WSB	- Water Spray Boiler

APPENDIX B

DEFINITIONS, 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, 10 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

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

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

APPENDIX B
DEFINITIONS, GROUND RULES, AND ASSUMPTIONS

B.2 IOA Project Level Ground Rules and Assumptions

The philosophy embodied in 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.

APPENDIX B
DEFINITIONS, GROUND RULES, AND ASSUMPTIONS

B.3 RMS-Specific Ground Rules and Assumptions

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

1. A RMS mission is considered to be uncradling, grappling a berthed payload, unberthing it, deploying it and then retrieving a rotating payload, berthing it and performing MFR operations. Any failure that prevents the completion of any of these tasks is loss of mission (i.e. loss of manual augmented modes).

   RATIONALE: This is the most demanding nominal RMS mission possible. This causes the worst case criticalities for certain failures because they will prevent the completion of this mission. If the mission was simpler, many failures would be a lower criticality.

2. Consistency checking and safing is not considered redundancy for failures that cause uncommanded motion.

   RATIONALE: The consistency check and safing are not redundant for the hardware that when fails causes uncommanded motion. They are also only designed to stop the RMS in 2 feet, which may not prevent collision.

3. A Criticality 1 failure is considered to be any failure that causes uncommanded motion, uncommanded release, uncommanded derigidization, or loss of capability to move a joint or any number of joints. It also includes the loss of the ability to release a payload, and the payload hanging up in the snares.

   RATIONALE: Uncommanded motion in its worst case can cause the loss of vehicle if the arm or payload struck a window or damaged the payload bay doors so they could not close. Uncommanded release could cause the payload to hit the Orbiter, uncommanded derigidization or a payload hanging up in the snares can cause the unrestrained payload on the end effector to swing into the Orbiter. The loss of the ability to move a joint or release a payload would mean the RMS could not be cradled which would prevent the doors from closing.

4. The loss of primary modes will cause loss of mission (Criticality 2) but backup is considered redundancy for release of the payload and cradling the RMS for some failures. Therefore, loss of primary modes is a criticality 2 as long as backup is available.

   RATIONALE: Without primary modes the RMS mission cannot be accomplished. Backup mode does not provide enough redundancy to accomplish the task mentioned in rule 1. Backup does provide some redundancy for failures that cause loss of payload release or loss of joint drive. Therefore, the failures that backup provides redundancy for will be classified as loss of mission.

5. For ascent, entry and aborts, the RMS is assumed to be cradled, latched, and unpowered. Only failures that can occur while the RMS is in this mode are considered for those flight phases.

   RATIONALE: The RMS is designed for use while onorbit. During ascent and entry the RMS is latched and unpowered. No consideration will be given to failures unless they have an effect during ascent and entry.

6. Failure modes are assumed to occur during two arm operations. If a failure can effect two arms, then the worst case result of that effect will determine the criticality.

   RATIONALE: The Orbiter is capable of supporting dual arm operation. If this configuration proves to be the worst case for a particular failure, then that will drive the criticality.

7. Failures of wire harnesses and bundles (structural failures, wire to wire shorts, incorrect attachment) are not considered. Failures of a single wire are covered by considering loss of input or output from a component.

   RATIONALE: The failure of wire harnesses and bundles are not being considered because of the magnitude of possible failures.

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: 7/17/87
ASSESSMENT ID: RMS-001X
NASA FMEA #: 05-6ID-2126-2

NASA DATA:
BASELINE [X]
NEW [ ]

SUBSYSTEM: RMS/EPD&C
MDAC ID: 1
ITEM: RELAY LATCHING, K77, K23

LEAD ANALYST: ROBINSON

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /2R]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/17/87
ASSESSMENT ID: RMS-002X
NASA FMEA #: 05-6ID-2127-2

NASA DATA:
BASELINE [X]
NEW [ ]

SUBSYSTEM: RMS/EPD&C
MDAC ID: 2
ITEM: RELAY LATCHING, K57, K78

LEAD ANALYST: ROBINSON

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /2R]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/17/87
ASSESSMENT ID: RMS-003X
NASA FMEA #: 05-6ID-2128-2

NASA DATA:
BASELINE [X]
NEW [ ]

SUBSYSTEM: RMS/EPD&C
MDAC ID: 3
ITEM: RELAY LATCHING, K44, K68

LEAD ANALYST: ROBINSON

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/17/87
ASSESSMENT ID: RMS-004X
NASA FMEA #: 05-6ID-2129-2

NASA DATA:
BASELINE [X]
NEW [ ]

SUBSYSTEM: RMS/EPD&C
MDAC ID: 4
ITEM: RELAY LATCHING, K11, K17

LEAD ANALYST: ROBINSON

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS' A	B	C	CIL ITEM
NASA	[3 /2R]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /2R]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/17/87
ASSESSMENT ID: RMS-005X
NASA FMEA #: 05-6ID-2130-2

NASA DATA:
BASELINE [X]
NEW [ ]

SUBSYSTEM: RMS/EPD&C
MDAC ID: 5
ITEM: RELAY LATCHING, K78, K80

LEAD ANALYST: ROBINSON

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /2R]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/17/87
ASSESSMENT ID: RMS-006X
NASA FMEA #: 05-6ID-2131-2

NASA DATA:
BASELINE [X]
NEW [ ]

SUBSYSTEM: RMS/EPD&C
MDAC ID: 6
ITEM: RELAY LATCHING, K76, K58

LEAD ANALYST: ROBINSON

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /2R]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: RMS-007X
NASA FMEA #: 05-6ID-2076-1

NASA DATA:
BASELINE [X]
NEW [ ]

SUBSYSTEM: RMS/EPD&C
MDAC ID: 7
ITEM: NONE

LEAD ANALYST: ROBINSON

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

CONSIDERING THAT THE FMEA HAS A 3/3 CRIT, IOA RECOMMENDS DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 7/01/87
ASSESSMENT ID: RMS-008X
NASA FMEA #: 05-6ID-2076-1

NASA DATA:
BASELINE [X]
NEW [ ]

SUBSYSTEM: RMS/EPD&C
MDAC ID: 8
ITEM: NONE

LEAD ANALYST: ROBINSON

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

CONSIDERING THAT THE FMEA HAS A 3/3 CRIT, IOA RECOMMENDS DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-101
NASA FMEA #: 80-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 101
ITEM: ENTER PUSH BUTTON INDICATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
INITIAL IOA ASSESSMENT DID NOT CONSIDER ALL RAMIFICATIONS. SUBSEQUENT EXAMINATION WILL ALLOW IOA TO AGREE WITH HIGHER NASA CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-102
NASA FMEA #: 60-32(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 102
ITEM: ENTER PUSH BUTTON INDICATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS DID NOT CONSIDER ALL RAMIFICATIONS. SUBSEQUENT EXAMINATION WILL PERMIT IOA TO AGREE WITH THE HIGHER NASA CRITICALITY. NO ISSUE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-103
NASA FMEA #: 1520-67A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 103
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-103A
NASA FMEA #: 1520-67A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 103
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-103B
NASA FMEA #: 1520-67A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 103
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-103C
NASA FMEA #: 1520-67B(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 103
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-104
NASA FMEA #: 1550-67(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 104
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /2R]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA).					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-105
NASA FMEA #: 1530-67A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 105
ITEM: 6.2V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-105A
NASA FMEA #: 1530-67A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 105
ITEM: 6.2V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-105B
NASA FMEA #: 1530-67B(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 105
ITEM: 6.2V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-106
NASA FMEA #: 1580-67(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 106
ITEM: 6.2V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS USED A DIFFERENT REDUNDANCY DEFINITION. THE MORE CONSERVATIVE DEFINITION WAS USED BY NASA AND IS ACCEPTABLE TO IOA. NO ISSUE WITH HIGHER NASA CRITICALITIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-107
NASA FMEA #: 1280-58C(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 107
ITEM: 6.2V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE DIFFERENCE IN SCREEN EVALUATION. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-108
NASA FMEA #: 690-42A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 108
ITEM: CAUTION AND WARNING TONE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-109
NASA FMEA #: 680-42A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 109
ITEM: CAUTION AND WARNING TONE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-110
NASA FMEA #: 710-43(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 110
ITEM: MODE LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-110A
NASA FMEA #: 720-43(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 110
ITEM: MODE LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-110B
NASA FMEA #: 730-44(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 110
ITEM: MODE LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-110C
NASA FMEA #: 740-44(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 110
ITEM: MODE LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-111
NASA FMEA #: 700-43(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 111
ITEM: MODE LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-111A
NASA FMEA #: 720-43(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 111
ITEM: MODE LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-112
NASA FMEA #: 750-45(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 112
ITEM: BRAKE TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-113
NASA FMEA #: 750-45(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 113
ITEM: BRAKE TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-114
NASA FMEA #: 880-47(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 114
ITEM: SOFTWARE STOP TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-115
NASA FMEA #: 880-47(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 115
ITEM: SOFTWARE STOP TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-115A
NASA FMEA #: 890-47(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 115
ITEM: SOFTWARE STOP TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-116
NASA FMEA #: 470-37A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 116
ITEM: CAUTION AND WARNING LIGHTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA).

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-116A
NASA FMEA #: 1180-58(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 116
ITEM: CAUTION AND WARNING LIGHTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87 NASA DATA:
ASSESSMENT ID: RMS-116B BASELINE [ ]
NASA FMEA #: 1210 NEW [X]

SUBSYSTEM: RMS
MDAC ID: 116
ITEM: CAUTION AND WARNING LIGHTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-117
NASA FMEA #: 460-37A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 117
ITEM: CAUTION AND WARNING LIGHTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-117A
NASA FMEA #: 1190-58(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 117
ITEM: CAUTION AND WARNING LIGHTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-117B
NASA FMEA #: 1200-58A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 117
ITEM: CAUTION AND WARNING LIGHTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-118
NASA FMEA #: 860-46(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 118
ITEM: SAFING TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-119
NASA FMEA #: 870-46(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 119
ITEM: SAFING TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-120
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 120
ITEM: EXTENDED

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-121
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 121
ITEM: EXTENDED

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-122
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 122
ITEM: OPEN

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-123
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 123
ITEM: OPEN

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-124
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 124
ITEM: CLOSED

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-125
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 125
ITEM: CLOSED

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-126
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 126
ITEM: CAPTURE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-127
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 127
ITEM: CAPTURE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-128
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 128
ITEM: DERIGID

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-129
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 129
ITEM: DERIGID

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-130
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 130
ITEM: RIGID

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-131
NASA FMEA #: 950-51(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 131
ITEM: RIGID

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA).

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-132
NASA FMEA #: 30-31(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 132
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DIFFERENCE IN CRITICALITIES DUE TO THE USE OF A MORE CONSERVATIVE REDUNDANCY DEFINITION USED BY NASA. IOA ACCEPTS THE MORE CONSERVATIVE DEFINITION AND HAS NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-133
NASA FMEA #: 10-31(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 133
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DIFFERENCE IN CRITICALITIES IS DUE TO THE MORE CONSERVATIVE REDUNDANCY DEFINITION USED BY NASA. IOA WILL AGREE WITH THE HIGHER CRITICLITY AND HAS NO ISSUE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-133A
NASA FMEA #: 20-31(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 133
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DIFFERENCE IN CRITICALITY IS DUE TO A MORE CONSERVATIVE ANALYSIS USED BY NASA. IOA ACCEPTS THE MORE CONSERVATIVE APPROACH AND WILL AGREE WITH THE HIGHER CRITICALITY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-134
NASA FMEA #: 800-45A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 134
ITEM: 6.2V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-135
NASA FMEA #: 830-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 135
ITEM: 6.2V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[P]	[P]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-136
NASA FMEA #: 1280-58C(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 136
ITEM: 6.2V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /2R]	[NA]	[F]	[F]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA ACCEPTS THE MORE CONSERVATIVE DEFINITION AND THE HIGHER CRITICALITY. THE DIFFERENCE IN SCREEN ASSIGNMENT HAS BEEN RESOLVED AFTER ADDITIONAL DISCUSSION WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-137
NASA FMEA #: 810-45A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 137
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-138
NASA FMEA #: 850-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 138
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-139
NASA FMEA #: 780-45A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 139
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-140
NASA FMEA #: 820-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 140
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
INITIAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATIONS. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-141
NASA FMEA #: 1250-58C(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 141
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
IOA AGREES WITH HIGHER NASA CRITICALITIES. NO ISSUES.

C-2

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-142
NASA FMEA #: 1260-58C(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 142
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ASSESSMENT WAS TOO CONSERVATIVE. ADDITIONAL DISCUSSIONS WITH NASA/SPAR REVEALED ADDED LEVELS OF REDUNDANCY AND AN ACCEPTANCE BY IOA OF THE LOWER CRITICALITY. NO ISSUE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-143
NASA FMEA #: 790-45A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 143
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-144
NASA FMEA #: 840-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 144
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-145
NASA FMEA #: 180-34A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 145
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THE MORE CONSERVATIVE APPROACH AND THE HIGHER CRITICALITY. NO ISSUE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-146
NASA FMEA #: 220-346

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 146
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[F]	[ ]	[X] *
IOA	[3 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSION WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-147
NASA FMEA #: 190-34A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 147
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSION WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-148
NASA FMEA #: 170-34(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 148
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THE MORE CONSERVATIVE APPROACH AND THE HIGHER CRITICALITY. NO ISSUE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-149
NASA FMEA #: 190-34A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 149
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[F]	[F]	[P]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA).					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THE MORE CONSERVATIVE APPROACH AND THE HIGHER CRITICALITY. NO ISSUE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-150
NASA FMEA #: 240-346

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 150
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-151
NASA FMEA #: 210-34A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 151
ITEM: SAFING SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THE MORE CONSERVATIVE APPROACH AND THE HIGHER CRITICALITY. NO ISSUE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-152
NASA FMEA #: 200-346

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 152
ITEM: SAFING SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THE MORE CONSERVATIVE APPROACH AND THE HIGHER CRITICALITY. NO ISSUE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-153
NASA FMEA #: 41

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 153
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[3 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[N /]	[N]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-154
NASA FMEA #: 40-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 154
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THE NASA ANALYSIS UTILIZED A CONSERVATIVE DEFINITION FOR REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-155
NASA FMEA #: 330-36A(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 155
ITEM: RIGIDIZE/DERIGIDIZE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-156
NASA FMEA #: 300-36(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 156
ITEM: RIGIDIZE/DERIGIDIZE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-157
NASA FMEA #: 330-36A(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 157
ITEM: RIGIDIZE/DERIGIDIZE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-158
NASA FMEA #: 300-36(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 158
ITEM: RIGIDIZE/DERIGIDIZE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-159
NASA FMEA #: 320-36A(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 159
ITEM: CAPTURE/RELEASE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FUTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-160
NASA FMEA #: 290-36(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 160
ITEM: CAPTURE/RELEASE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE NASA ANALYSIS UTILIZED A MORE CONSERVATIVE APPROACH WHICH IOA ACCEPTS. NO ISSUE WITH THE HIGHER NASA CRITICALITIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-161
NASA FMEA #: 340-36A(g)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 161
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-162
NASA FMEA #: 310-36(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 162
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-163
NASA FMEA #: 320-36A(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 163
ITEM: CAPTURE/RELEASE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-164
NASA FMEA #: 290-36(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 164
ITEM: CAPTURE/RELEASE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-165
NASA FMEA #: 380-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 165
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-166
NASA FMEA #: 310-36(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 166
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-166A
NASA FMEA #: 840-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 166
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-167
NASA FMEA #: 130-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 167
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /2R]	[NA]	[F]	[F]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA).					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS WAS INCORRECT. FURTHER DISCUSSIONS WITH NASA INDICATE THE LOWER CRITICALITY IS MORE APPROPRIATE. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-168
NASA FMEA #: 150-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 168
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /2R]	[NA]	[F]	[F]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS WAS INCORRECT. FURTHER DISCUSSIONS WITH NASA INDICATE THE LOWER CRITICALITY IS ACCEPTABLE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-169
NASA FMEA #: 140-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 169
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-170
NASA FMEA #: 160-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 170
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-171
NASA FMEA #: 270-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 171
ITEM: STOP CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /2R]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
THE NASA ANALYSIS UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY AND FUNCTION. IOA ACCEPTS THE CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-172
NASA FMEA #: 250-35(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 172
ITEM: STOP CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-173
NASA FMEA #: 270-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 173
ITEM: PROCEED CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-174
NASA FMEA #: 250-35(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 174
ITEM: PROCEED CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE NASA ANALYSIS UTILIZED A MORE CONSERVATIVE DEFINITION OF FUNCTION FOR THIS ITEM. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-175
NASA FMEA #: 650-42(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 175
ITEM: MASTER ALARM PUSH BUTTON INDICATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-176
NASA FMEA #: 660-42(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 176
ITEM: MASTER ALARM PUSH BUTTON INDICATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-177
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 177
ITEM: BACKUP CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE IS PART OF THE PANEL A8L FMEA PACKAGE AND IS FOR THE STARBOARD ARM. IT WAS NOT ANALYZED BY NASA IN THIS PACKAGE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-178
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 178
ITEM: BACKUP CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[2 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE IS PART OF THE PANEL A8L FMEA PACKAGE AND IS FOR THE STARBOARD ARM. IT WAS NOT ANALYZED BY NASA IN THIS PACKAGE.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-179
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 179
ITEM: BACKUP CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART OF THE RMS EPD&C PACKAGE (PANEL A8L) ANALYZED AND ASSESSED IN A SEPARATE PACKAGE. REFER TO MDAC WORKING PAPER 1.0 WP-VA88003-35 FOR DETAILS AND RESOLUTION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-180
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 180
ITEM: BACKUP CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART OF THE RMS EPD&C PACKAGE (PANEL A8L) ASSESSED IN MDAC WORKING PAPER 1.0-WP-VA88003-35. REFER TO IT FOR MORE DETAILS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-181
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 181
ITEM: PRIMARY CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
THIS ITEM IS PART OF THE STARBOARD ARM EPD&C PACKAGE. ANALYSIS OF THE STARBOARD ARM HAS BEEN DELAYED UNTIL A LATER TIME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-182
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 182
ITEM: PRIMARY CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART OF THE STARBOARD ARM EPD&C PACKAGE. ANALYSIS OF THE STARBOARD ARM HAS BEEN DELAYED UNTIL A LATER TIME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-183
NASA FMEA #:

NASA DATA:
. BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 183
ITEM: PRIMARY CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE IS PART OF THE RMS EPD&C PACKAGE AND IS COVERED IN MDAC WORKING PAPER 1.0-WP-VA88003-35. REFER TO THE REFERENCED WORKING PAPER FOR MORE DETAILS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-184
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 184
ITEM: PRIMARY CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE IS PART OF THE RMS EPD&C PACKAGE AND IS COVERED IN MDAC WORKING PAPER 1.0-WP-VA88003-35. REFER TO THIS WORKING PAPER FOR RESOLUTION AND DETAILS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-185
NASA FMEA #: 1530-67A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 185
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-185A
NASA FMEA #: 1530-67A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 185
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA).					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-185B
NASA FMEA #: 1530-67B(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 185
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-186
NASA FMEA #: 1570-67(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 186
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-187
NASA FMEA #: 1260-58C(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 187
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THE NASA ANALYSIS UTILIZED A MORE CONSERVATIVE DEFINITION FOR REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITY.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-188
NASA FMEA #: 1250-58C(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 188
ITEM: 12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-189
NASA FMEA #: 1520-67A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 189
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-189A
NASA FMEA #: 1520-67A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 189
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-189B
NASA FMEA #: 1520-67A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 189
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-190
NASA FMEA #: 1560-67(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 190
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-191
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 191
ITEM: DC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART OF THE RMS EPD&C PACKAGE PRESENTED IN MDAC WORKING PAPER 1.0-WP-VA880003-35. REFER TO THIS WORKING PAPER FOR DETAILS AND RESOLUTION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-192
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 192
ITEM: DC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART IF THE RMS EPD&C PACKAGE PRESENTED IN MDAC WORKING PAPER 1.0-WP-VA88003-35. REFER TO THIS WORKING PAPER FOR DETAILS AND RESOLUTION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-193
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 193
ITEM: AC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART IF THE RMS EPD&C PACKAGE PRESENTED IN MDAC WORKING PAPER 1.0-WP-VA88003-35. REFER TO THIS WORKING PAPER FOR DETAILS AND RESOLUTION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-195
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 195
ITEM: AC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART IF THE RMS EPD&C PACKAGE PRESENTED IN MDAC WORKING PAPER 1.0-WP-VA88003-35. REFER TO THIS WORKING PAPER FOR DETAILS AND RESOLUTION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-196
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 196
ITEM: AC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
THIS ITEM IS PART IF THE RMS EPD&C PACKAGE PRESENTED IN MDAC WORKING PAPER 1.0-WP-VA88003-35. REFER TO THIS WORKING PAPER FOR DETAILS AND RESOLUTION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-197
NASA FMEA #: 4440-210(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 197
ITEM: ENABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURHTER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-198
NASA FMEA #: 4430-210(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 198
ITEM: ENABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NO ISSUE WITH NASA EVALUATION OF SCREEN B.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-199
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 199
ITEM: DC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART OF THE RMS EPD&C PACKAGE PRESENTED IN MDAC WORKING PAPER 1.0-WP-VA88003-35. REFER TO THIS WORKING PAPER FOR DETAILS AND RESOLUTION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-200
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 200
ITEM: DC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA).

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS ITEM IS PART OF THE RMS EPD&C PACKAGE COVERED IN MDAC WORKING PAPER 1.0-WP-VA880003-35. REFER TO THAT WORKING PAPER FOR DETAILS AND RESOLUTION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-201
NASA FMEA #: 4440-210(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 201
ITEM: ENABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-202
NASA FMEA #: 4430-210(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 202
ITEM: ENABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-203
NASA FMEA #: 4420-209(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 203
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-203A
NASA FMEA #: 4491

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 203
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE INITIAL IOA ASSESSMENT DID NOT CONSIDER POSSIBLE REDUNDANT PATHS. SUBSEQUENT EXAMINATION AND DISCUSSION WITH NASA AND SPAR HAVE LED TO IOA'S AGREEMENT WITH THE LOWER CRITICALITIES SUGGESTED BY NASA. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-204
NASA FMEA #: 4410-209(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 204
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-205
NASA FMEA #: 4440-210(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 205
ITEM: COMMAND CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-206
NASA FMEA #: 4430-210(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 206
ITEM: COMMAND CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-207
NASA FMEA #: 4440-210(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 207
ITEM: COMMAND CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-208
NASA FMEA #: 4430-210(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 208
ITEM: COMMAND CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-209
NASA FMEA #: 4480-211(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 209
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-210
NASA FMEA #: 4460-211(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 210
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-210A
NASA FMEA #: 4450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 210
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ASSESSMENT. IOA ACCEPTS THIS MORE CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-210A
NASA FMEA #: 4470-211(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 210
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-211
NASA FMEA #: 1410-62A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 211
ITEM: DIGITAL DISPLAYS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-212
NASA FMEA #: 970-52(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 212
ITEM: DIGITAL DISPLAYS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-212A
NASA FMEA #: 1410-62A(a)

NASA DATA:
. BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 212
ITEM: DIGITAL DISPLAYS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-213
NASA FMEA #: 530-40(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 213
ITEM: 28V ENABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-214
NASA FMEA #: 520-40(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 214
ITEM: 28V ENABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-215
NASA FMEA #: 530-40(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 215
ITEM: 28V ENABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA).

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTLIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-216
NASA FMEA #: 520-40(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 216
ITEM: 28V ENABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-217
NASA FMEA #: 530-40(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 217
ITEM: 12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTLIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-218
NASA FMEA #: 520-40(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 218
ITEM: 12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-219
NASA FMEA #: 1140-57A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 219
ITEM: 12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA UTLIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY DURING THEIR ANALYSIS. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-220
NASA FMEA #: 1130-57A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 220
ITEM: 12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-221
NASA FMEA #: 530

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 221
ITEM: 6V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISREGARD IOA SCREEN EVALUATIONS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-222
NASA FMEA #: 520-40(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 222
ITEM: 6V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-223
NASA FMEA #: 1160-57A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 223
ITEM: 6V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-224
NASA FMEA #: 530-40(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 224
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-225
NASA FMEA #: 520-40(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 225
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-226
NASA FMEA #: 530-40(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 226
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-227
NASA FMEA #: 520-40(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 227
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-228
NASA FMEA #: 490-39(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 228
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-229
NASA FMEA #: 480-39(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 229
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-230
NASA FMEA #: 490-39(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 230
ITEM: 12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

C-3

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-231
NASA FMEA #: 480-39(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 231
ITEM: 12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-232
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 232
ITEM: 12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-233
NASA FMEA #: 440-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 233
ITEM: 12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-234
NASA FMEA #: 430-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 234
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[.]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-235
NASA FMEA #: 410-37(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 235
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-235A
NASA FMEA #: 450-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 235
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[.]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-236
NASA FMEA #: 1050-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 236
ITEM: D & C ADDRESS DECODER INPUT LINES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-237
NASA FMEA #: 1050-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 237
ITEM: D & C ADDRESS DECODER INPUT LINES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-238
NASA FMEA #: 1060-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 238
ITEM: D & C ADDRESS DECODER OUTPUT LINES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-239
NASA FMEA #: 1060-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 239
ITEM: D & C ADDRESS DECODER OUTPUT LINES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE STRINGENT EVALUATION AND APPLICATION OF FUNCTION/REDUNDANCY DEFINITIONS. IOA ACCEPTS THIS MORE CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-240
NASA FMEA #: 1060

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 240
ITEM: D & C ADDRESS DECODER OUTPUT LINES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-241
NASA FMEA #: 1070-56(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 241
ITEM: D & C INVERTOR NETWORK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND ADDITIONAL EVALUATION REVEALED REDUNDANCY PATHS FOR THIS FUNCTION. IOA CONCURS WITH THIS ANALYSIS AND ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-242
NASA FMEA #: 1071

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 242
ITEM: D & C INVERTOR NETWORK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ADDED A NEW FMEA. IOA AGREES WITH THE HIGHER CRITICALITIES GIVEN ON THE NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-243
NASA FMEA #: 1070

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 243
ITEM: D & C TEST WORD SELECTOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-244
NASA FMEA #: 1070

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 244
ITEM: D & C TEST WORD SELECTOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-245
NASA FMEA #: 1071

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 245
ITEM: D & C TEST WORD SELECTOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-246
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 246
ITEM: D & C TEST WORD SELECTOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-247
NASA FMEA #: 1030-55(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 247
ITEM: CLOCK PULSE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-248
NASA FMEA #: 1100-56B(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 248
ITEM: STROBE PULSE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS FAILED TO CONSIDER ADDITIONAL METHODS FOR ACCOMPLISHING THIS FUNCTION. IOA ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-248A
NASA FMEA #: 1030-55(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 248
ITEM: STROBE PULSE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /1R]	[NA]	[P]	[F]	[X]
COMPARE	[/]	[N]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-249
NASA FMEA #: 1050

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 249
ITEM: SERIAL TO PARALLEL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-250
NASA FMEA #: 1050

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 250
ITEM: SERIAL TO PARALLEL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-251
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 251
ITEM: SERIAL TO PARALLEL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-252
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 252
ITEM: SERIAL TO PARALLEL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-253
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 253
ITEM: PARITY GENERATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[.]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-254
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 254
ITEM: PARITY GENERATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-255
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 255
ITEM: PARITY GENERATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-256
NASA FMEA #: 1071

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 256
ITEM: PARALLEL TO SERIAL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-257
NASA FMEA #: 1070

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 257
ITEM: PARALLEL TO SERIAL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-258
NASA FMEA #: 1071

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 258
ITEM: PARALLEL TO SERIAL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-259
NASA FMEA #: 1070

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 259
ITEM: PARALLEL TO SERIAL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-260
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 260
ITEM: INPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-261
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 261
ITEM: INPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-262
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 262
ITEM: INPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-263
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 263
ITEM: INPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-264
NASA FMEA #: 1090

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 264
ITEM: OUTPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-265
NASA FMEA #: 1090

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 265
ITEM: OUTPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-266
NASA FMEA #: 1090

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 266
ITEM: OUTPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-267
NASA FMEA #: 1090-56A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 267
ITEM: OUTPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA SCREEN EVALUATION SHOULD BE DISREGARDED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-267A
NASA FMEA #: 1090-46A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 267
ITEM: OUTPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS ERRONEOUSLY EVALUATED SCREENS. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-268
NASA FMEA #: 1090-56A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 268
ITEM: OUTPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-268A
NASA FMEA #: 1090-46A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 268
ITEM: OUTPUT TRANSISTOR DRIVER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[.]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-269
NASA FMEA #: 1490-66(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 269
ITEM: VERNIER CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[2 /2]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS FAILED TO CONSIDER ALTERNATIVE OPERATING PROCEDURES TO OVERCOME THIS FAILURE. IOA AGREES WITH THE NASA ANALYSIS. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-270
NASA FMEA #: 1480-66(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 270
ITEM: COARSE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[.]	[X] *
IOA	[2 /2]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ASSESSMENT DID NOT CONSIDER ALL RAMIFICATIONS OF THE FAILURE. SUBSEQUENT EXAMINATION AND DISCUSSIONS W/NASA SUBSYSTEM MANAGER REVEALS ADDITIONAL FACTS WHICH ALLOW IOA TO AGREE WITH NASA'S HIGHER CRITICALITIES. NO ISSUES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-271
NASA FMEA #: 1500-67(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 271
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-271A
NASA FMEA #: 1500-67(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 271
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-272
NASA FMEA #: 1590-69(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 272
ITEM: LINKAGE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ASSESSMENT DID NOT CONSIDER ALL RAMIFICATIONS OF THE FAILURE. SUBSEQUENT EXAMINATION AND DISCUSSIONS W/NASA SUBSYSTEM MANAGER REVEALS ADDITIONAL FACTS WHICH ALLOW IOA TO AGREE WITH NASA'S HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-273
NASA FMEA #: 960-52(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 273
ITEM: COMMANDED

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)·

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-273A
NASA FMEA #: 1110-57(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 273
ITEM: COMMANDED

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-274
NASA FMEA #: 1110-57(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 274
ITEM: ACTUAL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-274A
NASA FMEA #: 960-52(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 274
ITEM: ACTUAL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-275
NASA FMEA #: 930-50(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 275
ITEM: X10 TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-276
NASA FMEA #: 1020-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 276
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-277
NASA FMEA #: 1000-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 277
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-278
NASA FMEA #: 990-53(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 278
ITEM: 115V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA/SPAR REVEAL THAT THIS ITEM IS NOT AS CRITICAL AS ORIGINALLY THOUGHT. IOA AGREES WITH THE LOWER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-279
NASA FMEA #: 980-53(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 279
ITEM: 115V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /2]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-280
NASA FMEA #: 1020-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 280
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-281
NASA FMEA #: 1000-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 281
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-282
NASA FMEA #: 990-53(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 282
ITEM: 115V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA/SPAR INDICATE THAT THIS ITEM IS NOT AS CRITICAL AS ORIGINALLY THOUGHT. IOA AGREES WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-283
NASA FMEA #: 980-53(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 283
ITEM: 115V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /2]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-284
NASA FMEA #: 1010-53(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 284
ITEM: TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-285
NASA FMEA #: 3970-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 285
ITEM: K1

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-286
NASA FMEA #: 1300-58D(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 286
ITEM: K1

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE ANALYSIS WORKSHEET EFFECT/RATIONALE SHOULD HAVE READ "WILL NOT BE ABLE TO INITIATE AUTO SAFING. WILL NOT BE ABLE RO RIGIDIZE OR DERIGIDIZE".

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-286A
NASA FMEA #: 3980-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 286
ITEM: K1

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[F]	[F]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-287
NASA FMEA #: 1290-58D(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 287
ITEM: K2

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-288
NASA FMEA #: 1290-58D(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 288
ITEM: K2

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-289
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 289
ITEM: K2

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-290
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 290
ITEM: K3

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS RELAY IS PART OF THE STARBOARD ARM WHICH IS NOT PART OF THE ANALYSIS BASELINE. NO ISSUES AT THIS TIME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-291
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 291
ITEM: K3

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-292
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 292
ITEM: K4

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[2 /2]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS RELAY IS PART OF THE STARBOARD ARM WHICH IS NOT PART OF THE ANALYSIS BASELINE. NO ISSUES AT THIS TIME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-293
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 293
ITEM: K4

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS RELAY IS PART OF THE STARBOARD ARM WHICH IS NOT PART OF THE ANALYSIS BASELINE. NO ISSUES AT THIS TIME.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-294
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 294
ITEM: K4

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-295
NASA FMEA #: 1230-58B(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 295
ITEM: K6

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A DIFFERENT DEFINITION FOR FUNCTION AND REDUNDANCY. DISCUSSIONS WITH NASA AND SPAR REVEAL SUFFICIENT DATA TO ALLOW IOA TO AGREE WITH THE NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-296
NASA FMEA #: 1220-58B(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 296
ITEM: K6

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-297
NASA FMEA #: 120-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 297
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES. ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-298
NASA FMEA #: 110-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 298
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[P]	[P]	[P]	[X] *
IOA	[2 /2]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES. ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-299
NASA FMEA #: 120-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 299
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[2 /2]	[P]	[F]	[F]	[X]
COMPARE	[/N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES. ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-300
NASA FMEA #: 90-33(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 300
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS FAILED TO CONSIDER ALL OF THE RAMIFICATIONS OF THIS FAILURE. AGREE WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-301
NASA FMEA #: 1420-64(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 301
ITEM: LINKAGE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-302
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 302
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[.]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-303
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 303
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-304
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 304
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-305
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 305
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-306
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 306
ITEM: PRIMARY CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-307
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 307
ITEM: PRIMARY CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-308
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 308
ITEM: BACKUP CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-309
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 309
ITEM: BACKUP CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-310
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 310
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-311
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 311
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-312
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 312
ITEM: 6.2V/12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-313
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 313
ITEM: 6.2V/12.4V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-314
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 314
ITEM: DC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-315
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 315
ITEM: DC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-316
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 316
ITEM: AC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-317
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 317
ITEM: AC CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-318
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 318
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-319
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 319
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

C-4

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-320
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 320
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-321
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 321
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[.]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-322
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 322
ITEM: OFF CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-323
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 323
ITEM: OFF CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-324
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 324
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-325
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 325
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-326
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 326
ITEM: CAPTURE/RELEASE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-327
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 327
ITEM: CAPTURE/RELEASE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-328
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 328
ITEM: RIGIDIZE/DERIGIDIZE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-329
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 329
ITEM: RIGIDIZE/DERIGIDIZE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-330
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 330
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-331
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 331
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-332
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 332
ITEM: 12/6V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-333
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 333
ITEM: 12/6V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-334
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 334
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-335
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 335
ITEM: 10V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-336
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 336
ITEM: 6/12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-337
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 337
ITEM: 6/12V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-338
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 338
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-339
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 339
ITEM: 28V CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-340
NASA FMEA #: 1590-69(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 340
ITEM: TRANSDUCER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[.]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-341
NASA FMEA #: 1620-70(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 341
ITEM: TRANSDUCER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-342
NASA FMEA #: 1420-64(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 342
ITEM: TRANSDUCER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-343
NASA FMEA #: 1420

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 343
ITEM: TRANSDUCER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA MODIFIED A CAUSE ON THEIR FMEA. IOA AGREES WITH THE NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-344
NASA FMEA #: 1460-65(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 344
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-344A
NASA FMEA #: 1460-65A(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 344
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-345
NASA FMEA #: 1460-65(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 345
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-345A
NASA FMEA #: 1460-65A(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 345
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-346
NASA FMEA #: 1460-65(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 346
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-346A
NASA FMEA #: 1460-65A(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 346
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-347
NASA FMEA #: 1340-60(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 347
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-348
NASA FMEA #: 1340-60(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 348
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-349
NASA FMEA #: 1360

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 349
ITEM: SIGNAL CONDITIONING DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /2]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-350
NASA FMEA #: 1310-59(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 350
ITEM: OSCILLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-351
NASA FMEA #: 1310-59(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 351
ITEM: OSCILLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-352
NASA FMEA #: 1310-59(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 352
ITEM: OSCILLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-352A
NASA FMEA #: 1330-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 352
ITEM: OSCILLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-353
NASA FMEA #: 590-41(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 353
ITEM: RHEOSTAT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-354
NASA FMEA #: 580-41(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 354
ITEM: RHEOSTAT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-355
NASA FMEA #: 610-41(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 355
ITEM: BRIGHT CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-356
NASA FMEA #: 600-41(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 356
ITEM: BRIGHT CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-356A
NASA FMEA #: 581

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 356
ITEM: BRIGHT CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-357
NASA FMEA #: 640-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 357
ITEM: VARIABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-358
NASA FMEA #: 630-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 358
ITEM: VARIABLE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-359
NASA FMEA #: 610-41(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 359
ITEM: RHEOSTAT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-360
NASA FMEA #: 600-41(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 360
ITEM: RHEOSTAT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)·

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-361
NASA FMEA #: 1460

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 361
ITEM: RETURN SPRING

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ADDED A NEW CAUSE TO THEIR FMEA. IOA AGREES WITH THE NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-362
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 362
ITEM: AUTO CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS WAS NOT COVERED IN THE NASA FMEA'S, BUT IN THE ROCKWELL FMEA'S.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-363
NASA FMEA #: 4320-202(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 363
ITEM: AUTO CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[3 /2R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-364
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 364
ITEM: AUTO CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /2R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
THIS WAS NOT COVERED IN THE NASA FMEA'S, BUT IN THE ROCKWELL FMEA'S.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-365
NASA FMEA #: 4320-202(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 365
ITEM: AUTO CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND THE HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-366
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 366
ITEM: OFF CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-367
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: RMS
MDAC ID: 367
ITEM: OFF CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-368
NASA FMEA #: 1600

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 368
ITEM: RETURN SPRING

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ADDED A NEW CAUSE TO THEIR FMEA. IOA AGREES WITH THE NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-401
NASA FMEA #: 4020-183(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 401
ITEM: ENCODER PHOTO DETECTORS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALTY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-402
NASA FMEA #: 4020-183(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 402
ITEM: ENCODER PHOTO DETECTORS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALTY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-403
NASA FMEA #: 4020-183(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 403
ITEM: ENCODER ROTATING DISK

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALTY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-404
NASA FMEA #: 4050-185(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 404
ITEM: MOTOR-STATOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-404A
NASA FMEA #: 4060

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 404
ITEM: MOTOR-STATOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[.]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-404B
NASA FMEA #: 4050-185(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 404
ITEM: MOTOR-STATOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-405
NASA FMEA #: 4070-186(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 405
ITEM: MOTOR BEARINGS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[.]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-406
NASA FMEA #: 4010-183(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 406
ITEM: MOTOR SHAFT

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-406A
NASA FMEA #: 4090-186A(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 406
ITEM: MOTOR SHAFT

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-407
NASA FMEA #: 4080-186(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 407
ITEM: MOTOR SHAFT AND PININON GEAR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-408
NASA FMEA #: 4170-193(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 408
ITEM: COMMUTATOR ROTATING DISK

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)·					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-409
NASA FMEA #: 4150-191(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 409
ITEM: COMMUTATOR BUFFER AMPLIFIER ELECTRONICSELECT

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-410
NASA FMEA #: 4160

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 410
ITEM: COMMUTATOR BUFFER AMPLIFIER ELECTRONICSELECT

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-411
NASA FMEA #: 4140-190(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 411
ITEM: COMMUTATOR LED

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-412
NASA FMEA #: 4160-192(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 412
ITEM: COMMUTATOR PHOTO SENSOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS ERRONEOUSLY EVALUATED SCREENS. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-413
NASA FMEA #: 4160-192(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 413
ITEM: COMMUTATOR PHOTO SENSOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-414
NASA FMEA #: 4160-192(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 414
ITEM: COMMUTATOR OUTPUT DRIVER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-415
NASA FMEA #: 4160-192(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 415
ITEM: COMMUTATOR OUTPUT DRIVER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-416
NASA FMEA #: 4010-183(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 416
ITEM: GEARBOX (G1)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-417
NASA FMEA #: 3990-182(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 417
ITEM: GEARBOX (G1)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-418
NASA FMEA #: 4010-183(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 418
ITEM: GEARBOX (G2)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-419
NASA FMEA #: 3990-182(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 419
ITEM: GEARBOX (G2)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-420
NASA FMEA #: 4130-189(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 420
ITEM: TACHOMETER ROTOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALTIY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-420A
NASA FMEA #: 4130-189(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 420
ITEM: TACHOMETER ROTOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[.]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALTIY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-421
NASA FMEA #: 4130-189(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 421
ITEM: TACHOMETER ROTOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALTIY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-421A
NASA FMEA #: 4130-189(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 421
ITEM: TACHOMETER ROTOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALTIY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-422
NASA FMEA #: 2760-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 422
ITEM: COMMUTATOR BITE LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-423
NASA FMEA #: 2750-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 423
ITEM: COMMUTATOR BITE LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[F]	[F]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-424
NASA FMEA #: 2600-116A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 424
ITEM: POWER-ON RESET CONTROL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. IOA REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-425
NASA FMEA #: 2610-116A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 425
ITEM: POWER-ON RESET CONTROL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THERE WAS AN ERROR IN THE INITIAL IOA DATA BASE ENTRY. IOA CRITICALITIES ARE ACTUALLY 3/3 AND AGREE WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-426
NASA FMEA #: 3160

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 426
ITEM: CONTROLLER, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-427
NASA FMEA #: 3190

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 427
ITEM: CONTROLLER, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-428
NASA FMEA #: 3160-142(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 428
ITEM: CONVERTER, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-429
NASA FMEA #: 3160-142(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 429
ITEM: CONVERTER, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-430
NASA FMEA #: 3160-142(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 430
ITEM: CONVERTER, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-431
NASA FMEA #: 2740-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 431
ITEM: 28V BITE LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-432
NASA FMEA #: 2740-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 432
ITEM: 28V BITE LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-433
NASA FMEA #: 2720-123B(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 433
ITEM: TACH BITE

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-434
NASA FMEA #: 2730-123B(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 434
ITEM: TACH BITE

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE CONSERVATIVE DEFINITION OF REDUNDANCY. IOA AGREES WITH THIS APPROACH AND WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-435
NASA FMEA #: 3180-143(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 435
ITEM: PROTECTOR, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-435A
NASA FMEA #: 3170

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 435
ITEM: PROTECTOR, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-436
NASA FMEA #: 3210-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 436
ITEM: PROTECTOR, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-437
NASA FMEA #: 3200-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 437
ITEM: PROTECTOR, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA).					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

C-5

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-438
NASA FMEA #: 3200-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 438
ITEM: PROTECTOR, POWER CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-439
NASA FMEA #: 3220-146(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 439
ITEM: SCU

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-439A
NASA FMEA #: 3220-146(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 439
ITEM: SCU

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-440
NASA FMEA #: 3220-146(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 440
ITEM: SCU

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-440A
NASA FMEA #: 3220-146(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 440
ITEM: SCU

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-441
NASA FMEA #: 4040-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 441
ITEM: POSITION ENCODER DATA PROCESSING

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS AND CRITICALITY ASSIGNMENT HAVE BEEN MODIFIED FOLLOWING DISCUSSIONS WITH SPAR AND NASA. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-442
NASA FMEA #: 4020-183(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 442
ITEM: POSITION ENCODER DATA PROCESSING

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-443
NASA FMEA #: 4030-184(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 443
ITEM: POSITION ENCODER DATA PROCESSING

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-444
NASA FMEA #: 3180

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 444
ITEM: + 10V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-445
NASA FMEA #: 3160

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 445
ITEM: + 10V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-446
NASA FMEA #: 2590-116(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 446
ITEM: + 28V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-447
NASA FMEA #: 2580-116(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 447
ITEM: + 28V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-448
NASA FMEA #: 2540-114(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 448
ITEM: D/A CONVERTER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
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APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-449
NASA FMEA #: 2560-115(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 449
ITEM: D/A CONVERTER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-450
NASA FMEA #: 2650-121(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 450
ITEM: ENCODER FEEDBACK

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[.]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-451
NASA FMEA #: 2660-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 451
ITEM: ENCODER FEEDBACK

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NASA ANALYSIS UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-452
NASA FMEA #: 2690/2700

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 452
ITEM: I/P CLOCK OR SYNCH SIGNAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-453
NASA FMEA #: 2690-123(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 453
ITEM: I/P CLOCK OR SYNCH SIGNAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-453A
NASA FMEA #: 2700-123(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 453
ITEM: I/P CLOCK OR SYNCH SIGNAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA).

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-454
NASA FMEA #: 2690/2700

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 454
ITEM: O/P CLOCK OR SYNCH SIGNAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-455
NASA FMEA #: 2690

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 455
ITEM: O/P CLOCK OR SYNCH SIGNAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-455A
NASA FMEA #: 2700-123(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 455
ITEM: O/P CLOCK OR SYNCH SIGNAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-456
NASA FMEA #: 2810

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 456
ITEM: 3.2 MHZ OSC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-457
NASA FMEA #: 2720-123B(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 457
ITEM: 3.2 MHZ OSC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-457A
NASA FMEA #: 2800-126(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 457
ITEM: 3.2 MHZ OSC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-457B
NASA FMEA #: 2790

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 457
ITEM: 3.2 MHZ OSC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-457C
NASA FMEA #: 2640

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 457
ITEM: 3.2 MHZ OSC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-458
NASA FMEA #: 2560-115(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 458
ITEM: SHIFT REGISTERS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-458A
NASA FMEA #: 2570-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 458
ITEM: SHIFT REGISTERS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-458B
NASA FMEA #: 2680-122(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 458
ITEM: SHIFT REGISTERS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-458C
NASA FMEA #: 2720-123B(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 458
ITEM: SHIFT REGISTERS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-459
NASA FMEA #: 2560-115(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 459
ITEM: SHIFT REGISTERS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRIGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-460
NASA FMEA #: 2620-117(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 460
ITEM: DIGITAL F/B (ENCODER)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES , THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUT AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-461
NASA FMEA #: 2620-117(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 461
ITEM: DIGITAL F/B (ENCODER)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[.]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-462
NASA FMEA #: 2620-117(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 462
ITEM: ANALOG F/B (COMMUTATOR)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES , THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUT AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-462A
NASA FMEA #: 2830

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 462
ITEM: ANALOG F/B (COMMUTATOR)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-463
NASA FMEA #: 2620-117(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 463
ITEM: ANALOG F/B (COMMUTATOR)

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-464
NASA FMEA #: 3060

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 464
ITEM: + 10V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA).

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ADDED A CAUSE TO THEIR FMEA. IOA AGREES WITH NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-465
NASA FMEA #: 3090

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 465
ITEM: + 28V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-466
NASA FMEA #: 3160

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 466
ITEM: + 5.1V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-467
NASA FMEA #: 3160

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 467
ITEM: - 15V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-468
NASA FMEA #: 3070-135(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 468
ITEM: + 15V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-469
NASA FMEA #: 2900-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 469
ITEM: MDA INHIB

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-470
NASA FMEA #: 2890-129B(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 470
ITEM: MDA INHIB

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS FAILED TO CONSIDER ALL POSSIBLE RAMIFICATIONS OF THIS FAILURE. IOA CONCURS WITH NASA'S HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-471
NASA FMEA #: 3130-139(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 471
ITEM: MTR TRANSFER RELAY

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-471A
NASA FMEA #: 3150-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 471
ITEM: MTR TRANSFER RELAY

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-472
NASA FMEA #: 3110-138(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 472
ITEM: MTR TRANSFER RELAY

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS FAILED TO CONSIDER ALL POSSIBLE RAMIFICATIONS OF THIS FAILURE. IOA CONCURS WITH NASA'S HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-472A
NASA FMEA #: 3120-139(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 472
ITEM: MTR TRANSFER RELAY

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[P]	[ ]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-472B
NASA FMEA #: 3140-140(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 472
ITEM: MTR TRANSFER RELAY

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS FAILED TO CONSIDER ALL POSSIBLE RAMIFICATIONS OF THIS FAILURE. IOA CONCURS WITH NASA'S HIGHER CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-473
NASA FMEA #: 3040-133(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 473
ITEM: PWM GENERATOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-473A
NASA FMEA #: 3060

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 473
ITEM: PWM GENERATOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-473B
NASA FMEA #: 3030

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 473
ITEM: PWM GENERATOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-474
NASA FMEA #: 3070

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 474
ITEM: PWM SWITCH DRIVERS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[.]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-475
NASA FMEA #: 3050

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 475
ITEM: COMMUTATOR I/P SIGNAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-476
NASA FMEA #: 2880

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 476
ITEM: DIR/ B/U /BRAKE SWITCHING LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-477
NASA FMEA #: 3080-136(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 477
ITEM: DIR/ B/U /BRAKE SWITCHING LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-477A
NASA FMEA #: 3090-137(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 477
ITEM: DIR/ B/U /BRAKE SWITCHING LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA).

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-477B
NASA FMEA #: 3100-137(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 477
ITEM: DIR/ B/U /BRAKE SWITCHING LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-478
NASA FMEA #: 3000-132(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 478
ITEM: MDA BITE LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA UTLIZED A MORE CONSERVATIVE DEFINITION OF FUNCTION AND REDUNDANCY. IOA AGREES WITH THIS APPROACH. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-479
NASA FMEA #: 3020-133A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 479
ITEM: MDA BITE LOGIC

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-480
NASA FMEA #: 2990

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 480
ITEM: MTR CURRENT SENSE RESISTOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-481
NASA FMEA #: 3070

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 481
ITEM: MTR CURRENT SENSE RESISTOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-482
NASA FMEA #: 2600-116A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 482
ITEM: POWER "ON" RESET

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-483
NASA FMEA #: 2610-116A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 483
ITEM: POWER "ON" RESET

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-484
NASA FMEA #: 2950-130(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 484
ITEM: CURRENT LIMITER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-484A
NASA FMEA #: 2960-131(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 484
ITEM: CURRENT LIMITER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-485
NASA FMEA #: 2820-128(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 485
ITEM: CURRENT LIMITER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-485A
NASA FMEA #: 2960-131(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 485
ITEM: CURRENT LIMITER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-485B
NASA FMEA #: 2990-132(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 485
ITEM: CURRENT LIMITER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-485C
NASA FMEA #: 3010-132A(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 485
ITEM: CURRENT LIMITER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUNDRULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN
DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-486
NASA FMEA #: 3120

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 486
ITEM: MTR TRANSFER RELAY

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[P]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-487
NASA FMEA #: 4580

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 487
ITEM: MTR TRANSFER RELAY

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[.]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-488
NASA FMEA #: 4560-216(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 488
ITEM: PWM

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-489
NASA FMEA #: 4570-216(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 489
ITEM: PWM

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-490
NASA FMEA #: 4580

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 490
ITEM: PWM SWITCH ELECTRONICS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ADDED A CAUSE TO THEIR FMEA. IOA AGREES WITH THE NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-491
NASA FMEA #: 4580

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 491
ITEM: PWM SWITCH ELECTRONICS

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[P]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA).					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-492
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 492
ITEM: + 28V

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-493
NASA FMEA #: 4520-214(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 493
ITEM: BDA PWR CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-494
NASA FMEA #: 4500-212(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 494
ITEM: BDA PWR CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-494A
NASA FMEA #: 4530-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 494
ITEM: BDA PWR CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-494B
NASA FMEA #: 4510

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 494
ITEM: BDA PWR CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-495
NASA FMEA #: 4560

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 495
ITEM: ANALOG PROCESSOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-496
NASA FMEA #: 4570

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 496
ITEM: ANALOG PROCESSOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ADDITIONAL DISCUSSIONS WITH NASA AND SPAR HAVE RESOLVED THIS ISSUE. IOA AGREES WITH NASA'S LOWER CRITICALITIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-497
NASA FMEA #: 4540-215(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 497
ITEM: POWER SIGNAL CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [X]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-498
NASA FMEA #: 4500

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 498
ITEM: POWER SIGNAL CONDITIONER

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSIONS WITH NASA AND SPAR. IOA AGREES WITH THE LOWER CRITICALITIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-499
NASA FMEA #: 4170

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 499
ITEM: B/U COMMUTATOR

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-500
NASA FMEA #: 4110-187(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 500
ITEM: ELECTRICAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-501
NASA FMEA #: 4100-187(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 501
ITEM: ELECTRICAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-502
NASA FMEA #: 4120-188(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 502
ITEM: MECHANICAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-502A
NASA FMEA #: 4120-1886(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 502
ITEM: MECHANICAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-503
NASA FMEA #: 4100-187(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 503
ITEM: MECHANICAL

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[.]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [X]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA ACCEPTS THIS CONSERVATIVE APPROACH AND CONCURS WITH NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-504
NASA FMEA #: 2970-131(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 504
ITEM: FWD/BACKDRIVE FLAG

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS FAILED TO CONSIDER ALL OF THE RAMIFICATIONS OF THIS FAILURE. AGREE WITH HIGHER CRITICALITIES AFTER SUBSEQUENT DISCUSSIONS WITH NASA AND SPAR. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-505
NASA FMEA #: 2980-131(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 505
ITEM: FWD/BACKDRIVE FLAG

LEAD ANALYST: R. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS FAILED TO CONSIDER ALL OF THE RAMIFICATIONS OF THIS FAILURE. AGREE WITH HIGHER CRITICALITIES AFTER SUBSEQUENT DISCUSSIONS WITH NASA AND SPAR. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-601
NASA FMEA #: 1960-92(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 601
ITEM: 16 CHANNEL ANALOG MULTIPLEXOR (3)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-601A
NASA FMEA #: 1970-93(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 601
ITEM: 16 CHANNEL ANALOG MULTIPLEXOR (3)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA).

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTLIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-601B
NASA FMEA #: 2040-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 601
ITEM: 16 CHANNEL ANALOG MULTIPLEXOR (3)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTLIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-602
NASA FMEA #: 1970-93(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 602
ITEM: 16 CHANNEL ANALOG MULTIPLEXOR (3)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

C-6

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-602A
NASA FMEA #: 1980

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 602
ITEM: 16 CHANNEL ANALOG MULTIPLEXOR (3)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[NA]	[ ] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /]	[ ]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INITIAL IOA ANALYSIS HAS BEEN MODIFIED FOLLOWING DISCUSSION WITH NASA AND SPAR. IOA CONCURS WITH NASA'S LOWER CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-603
NASA FMEA #: 1960

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 603
ITEM: BINARY COUNTERS (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-604
NASA FMEA #: 1970

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 604
ITEM: BINARY COUNTERS (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-605
NASA FMEA #: 2050-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 605
ITEM: SAMPLE AND HOLD GATED OP AMP

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCAMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-606
NASA FMEA #: 2050-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 606
ITEM: SAMPLE AND HOLD GATED OP AMP

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-606A
NASA FMEA #: 2060

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 606
ITEM: SAMPLE AND HOLD GATED OP AMP

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[ ]	[NA]	[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:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUE WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-607
NASA FMEA #: 2010-96(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 607
ITEM: VOLTAGE COMPARATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-608
NASA FMEA #: 1990-95(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 608
ITEM: VOLTAGE COMPARATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-608A
NASA FMEA #: 2070

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 608
ITEM: VOLTAGE COMPARATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[ ]	[NA]	[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:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRCT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUES WITH NASA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-608B
NASA FMEA #: 2030

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 608
ITEM: VOLTAGE COMPARATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR REVEALED ADDITIONAL LEVELS OF REDUNDANCY NOT CONSIDERED DURING ORIGINAL IOA ANALYSIS. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-609
NASA FMEA #: 2000-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 609
ITEM: ANALOG TO DIGITAL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALTIY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-610
NASA FMEA #: 1990-95(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 610
ITEM: ANALOG TO DIGITAL CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-611
NASA FMEA #: 1990/2000

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 611
ITEM: QUAD 3-STATE R/S LATCHES (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-612
NASA FMEA #: 1990/2000

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 612
ITEM: QUAD 3-STATE R/S LATCHES (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-613
NASA FMEA #: 2450-110(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 613
ITEM: MULTIWINDING OUTPUT TRANSFORMER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1/ CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-614
NASA FMEA #: 2460-111(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 614
ITEM: MULTIWINDING OUTPUT TRANSFORMER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-614A
NASA FMEA #: 2470-111(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 614
ITEM: MULTIWINDING OUTPUT TRANSFORMER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-614B
NASA FMEA #: 2480-111(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 614
ITEM: MULTIWINDING OUTPUT TRANSFORMER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-614C
NASA FMEA #: 2490-112(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 614
ITEM: MULTIWINDING OUTPUT TRANSFORMER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-614D
NASA FMEA #: 2500-112(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 614
ITEM: MULTIWINDING OUTPUT TRANSFORMER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-614E
NASA FMEA #: 2510

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 614
ITEM: MULTIWINDING OUTPUT TRANSFORMER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUES WITH NASA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-615
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 615
ITEM: 2-PHASE PWM

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-616
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 616
ITEM: 2-PHASE PWM

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-617
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 617
ITEM: POWER SWITCHING TRANSISTORS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTLIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNSER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-618
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 618
ITEM: POWER SWITCHING TRANSISTORS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-619
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 619
ITEM: 30-KHZ TRIANGULAR WAVE GENERATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-620
NASA FMEA #: 2520

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 620
ITEM: 30-KHZ TRIANGULAR WAVE GENERATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUE WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-621
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 621
ITEM: DIFFERENTIAL AMPLIFIER PWM ADJUSTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NAS TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-622
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 622
ITEM: DIFFERENTIAL AMPLIFIER PWM ADJUSTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-623
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 623
ITEM: OP AMP, 30 KHZ TRIANGULAR WAVE WIDTH ADJUSTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-624
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 624
ITEM: OP AMP, 30 KHZ TRIANGULAR WAVE WIDTH ADJUSTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-625
NASA FMEA #: 2450

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 625
ITEM: RECTIFIER MODULES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-626
NASA FMEA #: 1640

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 626
ITEM: RECTIFIER MODULES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[NA]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUE WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-627
NASA FMEA #: 1650

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 627
ITEM: MIA

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-628
NASA FMEA #: 1650

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 628
ITEM: MIA

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[NA]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-629
NASA FMEA #: 1740/1760/1770/1780

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 629
ITEM: CLOCK DIVIDER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-630
NASA FMEA #: 1740-80(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 630
ITEM: CLOCK DIVIDER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-630A
NASA FMEA #: 1760-80(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 630
ITEM: CLOCK DIVIDER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-630B
NASA FMEA #: 1770-80(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 630
ITEM: CLOCK DIVIDER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-630C
NASA FMEA #: 1780-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 630
ITEM: CLOCK DIVIDER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-630D
NASA FMEA #: 1860

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 630
ITEM: CLOCK DIVIDER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-630E
NASA FMEA #: 1850

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 630
ITEM: CLOCK DIVIDER CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[ ]	[NA]	[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:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-631
NASA FMEA #: 1770

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 631
ITEM: 16 MHZ CRYSTAL OSCILLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-632
NASA FMEA #: 1770-80(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 632
ITEM: 16 MHZ CRYSTAL OSCILLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-633
NASA FMEA #: 1710-78(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 633
ITEM: O/P PARALLEL TO SERIAL SHIFT REGISTER (3)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALTIY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-634
NASA FMEA #: 1730-79(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 634
ITEM: O/P PARALLEL TO SERIAL SHIFT REGISTER (3)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-635
NASA FMEA #: 1660-76(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 635
ITEM: I/P SERIAL TO PARALLEL SHIFT REGISTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-635A
NASA FMEA #: 1670-76(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 635
ITEM: I/P SERIAL TO PARALLEL SHIFT REGISTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-636
NASA FMEA #: 1660-76(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 636
ITEM: I/P SERIAL TO PARALLEL SHIFT REGISTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-636A
NASA FMEA #: 1670-76(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 636
ITEM: I/P SERIAL TO PARALLEL SHIFT REGISTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-637
NASA FMEA #: 1640

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 637
ITEM: TRANSMIT TIMING CONTROL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-638
NASA FMEA #: 1640

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 638
ITEM: TRANSMIT TIMING CONTROL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-639
NASA FMEA #: 1650

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 639
ITEM: RECEIVE TIMING CONTROL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-640
NASA FMEA #: 1790

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 640
ITEM: RECEIVE TIMING CONTROL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUE WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-640A
NASA FMEA #: 1800

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 640
ITEM: RECEIVE TIMING CONTROL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUE WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-641
NASA FMEA #: 2090-99(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 641
ITEM: BRAKE STATUS OPTO ISOLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATIONS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-641A
NASA FMEA #: 2110-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 641
ITEM: BRAKE STATUS OPTO ISOLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATIONS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-642
NASA FMEA #: 2100-99(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 642
ITEM: BRAKE STATUS OPTO ISOLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-642A
NASA FMEA #: 2100-99(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 642
ITEM: BRAKE STATUS OPTO ISOLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-642B
NASA FMEA #: 2120-100(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 642
ITEM: BRAKE STATUS OPTO ISOLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-643
NASA FMEA #: 2090-99(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 643
ITEM: BRAKE DRIVE SWITCHES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-644
NASA FMEA #: 2080-98(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 644
ITEM: BRAKE DRIVE SWITCHES

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-645
NASA FMEA #: 2200-101B(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 645
ITEM: AUTO BRAKE CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-646
NASA FMEA #: 2190-101B(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 646
ITEM: AUTO BRAKE CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-647
NASA FMEA #: 2250-103A(h)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 647
ITEM: EE AUTO LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-647A
NASA FMEA #: 2290-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 647
ITEM: EE AUTO LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-647B
NASA FMEA #: 2300-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 647
ITEM: EE AUTO LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA ANALYSIS INADVERTENTLY INCLUDED SCREENS FOR THE 1/1. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-647C
NASA FMEA #: 2330-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 647
ITEM: EE AUTO LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA ANALYSIS INADVERTENTLY INCLUDED SCREENS FOR THE 1/1. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-648
NASA FMEA #: 2260-103A(i)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 648
ITEM: EE AUTO LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE EXACTING DEFINITION OF FUNCTION AND REDUNDANCY. IOA AGREES WITH THIS CONSERVATIVE APPROACH AND ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-648A
NASA FMEA #: 2280-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 648
ITEM: EE AUTO LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE EXACTING DEFINITION OF FUNCTION AND REDUNDANCY. IOA AGREES WITH THIS CONSERVATIVE APPROACH AND ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-648B
NASA FMEA #: 2310-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 648
ITEM: EE AUTO LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-648C
NASA FMEA #: 2320-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 648
ITEM: EE AUTO LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /]	[ ]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-649
NASA FMEA #: 2150-101(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 649
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANLYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-649A
NASA FMEA #: 2200-101B(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 649
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANLYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-649B
NASA FMEA #: 2220-102(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 649
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANLYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-649C
NASA FMEA #: 2240-103(g)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 649
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANLYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-649D
NASA FMEA #: 2290-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 649
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANLYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-650
NASA FMEA #: 2130

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 650
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-650A
NASA FMEA #: 2190-101B(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 650
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-650B
NASA FMEA #: 2210-102(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 650
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-650C
NASA FMEA #: 2230-103(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 650
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-650D
NASA FMEA #: 2280-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 650
ITEM: DUAL 4-BIT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY EVALUATED SCREENS.
DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-651
NASA FMEA #: 2150-101(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 651
ITEM: 4-BIT MAGNITUDE COMPARATOR (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-652
NASA FMEA #: 2180-101A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 652
ITEM: 4-BIT MAGNITUDE COMPARATOR (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-653
NASA FMEA #: 2150-101(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 653
ITEM: FRAME SYNC FAILURE DETECTOR TIMING CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-654
NASA FMEA #: 2180-101A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 654
ITEM: FRAME SYNC FAILURE DETECTOR TIMING CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-655
NASA FMEA #: 2170-101A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 655
ITEM: 7-BIT BINARY COUNTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE MODIFIED THE ORIGINAL IOA ANALYSIS. IOA AGREES WITH NASA CRITICALITIES. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-656
NASA FMEA #: 2180-101A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 656
ITEM: 7-BIT BINARY COUNTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[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 ACCEPTS NASA EVALUATION OF SCREENS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-657
NASA FMEA #: 2160

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 657
ITEM: READ IN/WRITE OUT MAGNITUDE COMPARATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ADDED A NEW ITEM TO THIS FMEA. IOA AGREES WITH THE NASA FMEA. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-658
NASA FMEA #: 2150

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 658
ITEM: READ IN/WRITE OUT MAGNITUDE COMPARATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-659
NASA FMEA #: 1830-83(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 659
ITEM: LOWER SERIAL SHIFT REGISTER, ABE O/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-659A
NASA FMEA #: 1840-83(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 659
ITEM: LOWER SERIAL SHIFT REGISTER, ABE O/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-660
NASA FMEA #: 1840-83(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 660
ITEM: LOWER SERIAL SHIFT REGISTER, ABE O/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-661
NASA FMEA #: 1830-83(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 661
ITEM: UPPER SERIAL SHIFT REGISTER, ABE I/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-661A
NASA FMEA #: 1840-83(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 661
ITEM: UPPER SERIAL SHIFT REGISTER, ABE I/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-662
NASA FMEA #: 1840-83(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 662
ITEM: UPPER SERIAL SHIFT REGISTER, ABE I/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-663
NASA FMEA #: 1880-87(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 663
ITEM: ABE OUTPUT DRIVER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-664
NASA FMEA #: 1880-87(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 664
ITEM: ABE OUTPUT DRIVER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-665
NASA FMEA #: 1870-86(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 665
ITEM: LOWER SERIAL SHIFT REGISTER, D & C O/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE EXACTING DEFINITION OF FUNCTION AND REDUNDANCY. IOA AGREES WITH THIS CONSERVATIVE APPROACH AND ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-666
NASA FMEA #: 1870-86(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 666
ITEM: LOWER SERIAL SHIFT REGISTER, D & C O/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE EXACTING DEFINITION OF FUNCTION AND REDUNDANCY. IOA AGREES WITH THIS CONSERVATIVE APPROACH AND ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-667
NASA FMEA #: 1870-86(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 667
ITEM: UPPER SERIAL SHIFT REGISTER, D & C O/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE EXACTING DEFINITION OF FUNCTION AND REDUNDANCY. IOA AGREES WITH THIS CONSERVATIVE APPROACH AND ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-668
NASA FMEA #: 1870-86(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 668
ITEM: UPPER SERIAL SHIFT REGISTER, D & C O/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE EXACTING DEFINITION OF FUNCTION AND REDUNDANCY. IOA AGREES WITH THIS CONSERVATIVE APPROACH AND ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-669
NASA FMEA #: 1910

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 669
ITEM: D & C STROBE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-670
NASA FMEA #: 1910-89(h)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 670
ITEM: D & C STROBE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-671
NASA FMEA #: 1940

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 671
ITEM: D & C CLOCK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY EVALUATED SCREENS. DISREGARD. THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-672
NASA FMEA #: 1910-89(h)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 672
ITEM: D & C CLOCK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-673
NASA FMEA #: 1890

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 673
ITEM: ABE INPUT OPTO ISOLATORS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-674
NASA FMEA #: 1890

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 674
ITEM: ABE INPUT OPTO ISOLATORS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-675
NASA FMEA #: 1890

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 675
ITEM: SERIAL-PARALLEL SHIFT REGISTERS (2) ABE I/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-676
NASA FMEA #: 1890

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 676
ITEM: SERIAL-PARALLEL SHIFT REGISTERS (2) ABE I/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-677
NASA FMEA #: 1950

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 677
ITEM: SERIAL-PARALLEL SHIFT REGISTERS (2) D & C I/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ADDED A CAUSE TO THEIR FMEA. IOA AGREES WITH THE NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-678
NASA FMEA #: 1950

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 678
ITEM: SERIAL-PARALLEL SHIFT REGISTERS (2) D & C I/P

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ADDED A CAUSE TO THEIR FMEA. IOA AGREES WITH THE NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-679
NASA FMEA #: 1930-90(j)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 679
ITEM: PARITY CHECK LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA ANALYSIS UTILIZED A MORE EXACTING DEFINITION OF FUNCTION AND REDUNDANCY. IOA AGREES WITH THIS CONSERVATIVE APPROACH AND ACCEPTS NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-680
NASA FMEA #: 1900-88(g)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 680
ITEM: PARITY CHECK LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-681
NASA FMEA #: 2340-104(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 681
ITEM: CPU

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-682
NASA FMEA #: 2340-104(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 682
ITEM: CPU

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-682A
NASA FMEA #: 2440-109B(k)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 682
ITEM: CPU

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-683
NASA FMEA #: 2340-104(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 683
ITEM: 200 KHZ CLOCK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-684
NASA FMEA #: 2340-104(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 684
ITEM: 200 KHZ CLOCK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
ADDITIONAL DISCUSSIONS HAVE RESOLVED SCREEN DISCREPANCY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-684A
NASA FMEA #: 1700

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 684
ITEM: 200 KHZ CLOCK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[NA]	[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:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUE WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-685
NASA FMEA #: 2400-109(h)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 685
ITEM: PARALLEL DATA CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-685B
NASA FMEA #: 2410-109(h)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 685
ITEM: PARALLEL DATA CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-686
NASA FMEA #: 2370-107(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 686
ITEM: PARALLEL DATA CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-686A
NASA FMEA #: 2380-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 686
ITEM: PARALLEL DATA CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-687
NASA FMEA #: 2360

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 687
ITEM: DIRECT MEMORY ACCESS CONTROLLER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[ ]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-688
NASA FMEA #: 2360-106(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 688
ITEM: DIRECT MEMORY ACCESS CONTROLLER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
ADDITIONAL DISCUSSIONS HAVE RESOLVED SCREEN DISCREPANCY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-688A
NASA FMEA #: 1720

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 688
ITEM: DIRECT MEMORY ACCESS CONTROLLER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[NA]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA'S ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING, OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-689
NASA FMEA #: 2440

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 689
ITEM: POWER ON INIT ROUTINE LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOW NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-690
NASA FMEA #: 2340-104(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 690
ITEM: POWER ON INIT ROUTINE LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-691
NASA FMEA #: 2350-105(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 691
ITEM: RAM

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-692
NASA FMEA #: 2350

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 692
ITEM: RAM

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM	
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-693
NASA FMEA #: 2350-105(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 693
ITEM: ROM

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-694
NASA FMEA #: 2350

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 694
ITEM: ROM

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-695
NASA FMEA #: 2360

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 695
ITEM: O/P LATCH (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-696
NASA FMEA #: 2360-106(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 696
ITEM: O/P LATCH (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANLYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-696A
NASA FMEA #: 1690

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 696
ITEM: O/P LATCH (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENET STRING OR AS INTEGRAL PARTS OF A CIRCUIT. NO ISSUE WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-697
NASA FMEA #: 2360

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 697
ITEM: I/P LATCH (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY OT 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-698
NASA FMEA #: 2360-106(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 698
ITEM: I/P LATCH (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[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:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-698A
NASA FMEA #: 1680

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 698
ITEM: I/P LATCH (2)

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-801
NASA FMEA #: 3720

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 801
ITEM: SNARE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-802
NASA FMEA #: 3700-171(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 802
ITEM: SNARE

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-802A
NASA FMEA #: 3760

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 802
ITEM: SNARE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-802B
NASA FMEA #: 3770

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 802
ITEM: SNARE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE ENABLED IOA TO MODIFY THE ORIGINAL ANALYSIS. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-803
NASA FMEA #: 3810

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 803
ITEM: CARRIAGE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-804
NASA FMEA #: 3800-176(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 804
ITEM: CARRIAGE

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-805
NASA FMEA #: 3720

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 805
ITEM: CAPTURE BRAKE

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION.
DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-806
NASA FMEA #: 3630

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 806
ITEM: CAPTURE BRAKE

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-807
NASA FMEA #: 3640

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 807
ITEM: RIBIDIZE BRAKE

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-808
NASA FMEA #: 3740

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 808
ITEM: RIBIDIZE BRAKE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[3 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[N /]	[N]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-809
NASA FMEA #: 3640

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 809
ITEM: CAPTURE CLUTCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-810
NASA FMEA #: 3640

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 810
ITEM: CAPTURE CLUTCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-811
NASA FMEA #: 3630

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 811
ITEM: CAPTURE CLUTCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-811A
NASA FMEA #: 3730

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 811
ITEM: CAPTURE CLUTCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER,PROVIDE A SIMILAR FAILURE EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENET STRING OR AS INTEGRAL PARTS OF A CIRCUIT. DISREGARD IOA SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-812
NASA FMEA #: 3630

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 812
ITEM: RIGIDIZE CLUTCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-813
NASA FMEA #: 3640-166(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 813
ITEM: RIGIDIZE CLUTCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-814
NASA FMEA #: 3790

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 814
ITEM: CAPTURE DRIVE TRAIN

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-815
NASA FMEA #: 3790

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 815
ITEM: CAPTURE DRIVE TRAIN

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-816
NASA FMEA #: 3790

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 816
ITEM: RIGIDIZE DRIVE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-817
NASA FMEA #: 3800

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 817
ITEM: RIGIDIZE DRIVE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-818
NASA FMEA #: 3840-177A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 818
ITEM: DERIGID MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-819
NASA FMEA #: 3850

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 819
ITEM: DERIGID MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-820
NASA FMEA #: 3900

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 820
ITEM: CLOSED MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-821
NASA FMEA #: 3890

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 821
ITEM: CLOSED MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-821A
NASA FMEA #: 3910

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 821
ITEM: CLOSED MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-822
NASA FMEA #: 3920

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 822
ITEM: CAPTURE MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NAS CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-823
NASA FMEA #: 3930

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 823
ITEM: CAPTURE MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NAS CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-824
NASA FMEA #: 3880

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 824
ITEM: OPEN MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-824A
NASA FMEA #: 3981

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 824
ITEM: OPEN MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
THE REFERENCED MDAC AND NASA FMEA ARE NOT A DIRECT MATCH. THEY DO, HOWEVER, PROVIDE A SIMILAR EFFECT SINCE THEY EXIST WITHIN A SEQUENTIAL COMPONENT STRING OR AS INTEGRAL PARTS OF A CIRCUIT.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-825
NASA FMEA #: 3890

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 825
ITEM: OPEN MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-826
NASA FMEA #: 3870-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 826
ITEM: EXTEND MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-827
NASA FMEA #: 3860-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 827
ITEM: EXTEND MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA UTILIZED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA AGREES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-828
NASA FMEA #: 3470-157(j)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 828
ITEM: EXTEND MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-829
NASA FMEA #: 3480

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 829
ITEM: EXTEND MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[NA]	[NA]	[NA]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-830
NASA FMEA #: 3450-156(h)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 830
ITEM: RIGIDIZE MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-831
NASA FMEA #: 3460

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 831
ITEM: RIGIDIZE MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-832
NASA FMEA #: 3440-155(g)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 832
ITEM: DERIGIDIZED MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-833
NASA FMEA #: 3430-155(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 833
ITEM: DERIGIDIZED MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-834
NASA FMEA #: 3390

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 834
ITEM: CLOSED MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-835
NASA FMEA #: 3400-153(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 835
ITEM: CLOSED MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-836
NASA FMEA #: 3490

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 836
ITEM: PL CAPTURE MSW SIGNAL CONDITONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-837
NASA FMEA #: 3500

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 837
ITEM: PL CAPTURE MSW SIGNAL CONDITONER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-838
NASA FMEA #: 3410

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 838
ITEM: OPEN MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[NA]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-839
NASA FMEA #: 3420

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 839
ITEM: OPEN MSW SIGNAL CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /2R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-840
NASA FMEA #: 3570

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 840
ITEM: CAPTURE/RELEASE BRAKE/CLUTCH POWER SWITCH DRIVER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-840A
NASA FMEA #: 3550

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 840
ITEM: CAPTURE/RELEASE BRAKE/CLUTCH POWER SWITCH DRIVER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-841
NASA FMEA #: 3570

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 841
ITEM: RIGID/DERIGID BRAKE/CLUTCH POWER SWITCH DRIVER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-841A
NASA FMEA #: 3550

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 841
ITEM: RIGID/DERIGID BRAKE/CLUTCH POWER SWITCH DRIVER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-842
NASA FMEA #: 3570

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 842
ITEM: MOTOR POWER SIGNAL CONTROLLER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-843
NASA FMEA #: 3560

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 843
ITEM: MOTOR POWER SIGNAL CONTROLLER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-844
NASA FMEA #: 3370

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 844
ITEM: EEEU BITE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-845
NASA FMEA #: 3380

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 845
ITEM: EEEU BITE

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NASA EVALUATION INCLUDED A MORE STRINGENT DEFINITION OF FUNCTION AND REDUNDANCY. IOA CONCURS WITH THIS CONSERVATIVE APPROACH AND NASA CRITICALITIES. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-846
NASA FMEA #: 3570

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 846
ITEM: POWER SWITCH DRIVERS

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-847
NASA FMEA #: 3560

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 847
ITEM: POWER SWITCH DRIVERS

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[3 /1R]	[P]	[F]	[F]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-848
NASA FMEA #: NONE

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM:
MDAC ID: 848
ITEM: MULTIPLE ACTIVATE CMD INHIBIT

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-849
NASA FMEA #: 3330

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 849
ITEM: MULTIPLE ACTIVATE CMD INHIBIT

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-850
NASA FMEA #: 3830

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 850
ITEM: RIGIDIZE MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-851
NASA FMEA #: 3820

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 851
ITEM: RIGIDIZE MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-852
NASA FMEA #: 3610

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 852
ITEM: BEARINGS

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-853
NASA FMEA #: 3710-171(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 853
ITEM: BU GEARTRAIN

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION.
DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-854
NASA FMEA #: 3710-171(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 854
ITEM: BU GEARTRAIN

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-855
NASA FMEA #: 3750

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 855
ITEM: BU SPRING

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-856
NASA FMEA #: 3950-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 856
ITEM: BU SPRING

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-857
NASA FMEA #: 3940

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 857
ITEM: BU CLUTCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-858
NASA FMEA #: 3700

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 858
ITEM: BU CLUTCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-859
NASA FMEA #: 3950-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 859
ITEM: BU CLUTCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-860
NASA FMEA #: 3950-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 860
ITEM: BU CLUTCH

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-861
NASA FMEA #: 3610

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 861
ITEM: STATOR

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-862
NASA FMEA #: 3620

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 862
ITEM: STATOR

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-863
NASA FMEA #: 3650

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 863
ITEM: ROTOR

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
ORIGINAL IOA ANALYSIS INADVERTENTLY INCLUDED SCREEN EVALUATION. DISREGARD.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-864
NASA FMEA #: 3670

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 864
ITEM: PHOTO CELL (3)

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-865
NASA FMEA #: 3660

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 865
ITEM: LED

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-866
NASA FMEA #: 3660

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 866
ITEM: LED

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-867
NASA FMEA #: 3680

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 867
ITEM: COMMUTATOR AMP

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-868
NASA FMEA #: 3660-169(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 868
ITEM: COMMUTATOR AMP

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-869
NASA FMEA #: 3560

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 869
ITEM: OUTPUT DRIVER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-870
NASA FMEA #: 3560

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 870
ITEM: OUTPUT DRIVER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-871
NASA FMEA #: 3680

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 871
ITEM: ROTATING DISK

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-872
NASA FMEA #: 3260

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 872
ITEM: CAP/REL BRAKE & CLUTCH ACTIVATE CONTROL

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-873
NASA FMEA #: 3260

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 873
ITEM: CAP/REL BRAKE & CLUTCH ACTIVATE CONTROL

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-874
NASA FMEA #: 3250

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 874
ITEM: RIG/DERIG BRAKE & CLUTCH ACTIVATE CONTROL

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-874A
NASA FMEA #: 3520

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 874
ITEM: RIG/DERIG BRAKE & CLUTCH ACTIVATE CONTROL

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-875
NASA FMEA #: 3250

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 875
ITEM: RIG/DERIG BRAKE & CLUTCH ACTIVATE CONTROL

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-876
NASA FMEA #: 3230

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 876
ITEM: CAP/REL BRAKE & CLUTCH FAIL SAFE ENABLE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-877
NASA FMEA #: 3230

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 877
ITEM: CAP/REL BRAKE & CLUTCH FAIL SAFE ENABLE

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-878
NASA FMEA #: 3240

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 878
ITEM: RIG/DERIG BRAKE & CLUTCH FAIL SAFE ENABLE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-879
NASA FMEA #: 3240

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 879
ITEM: RIG/DERIG BRAKE & CLUTCH FAIL SAFE ENABLE

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-880
NASA FMEA #: 3330

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 880
ITEM: MOTOR POWER FAIL SAFE ENABEL

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-881
NASA FMEA #: 3330

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 881
ITEM: MOTOR POWER FAIL SAFE ENABEL

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-882
NASA FMEA #: 3310

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 882
ITEM: MOTOR POWER ACTIVATE CONTROL

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-883
NASA FMEA #: 3320

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 883
ITEM: MOTOR POWER ACTIVATE CONTROL

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-884
NASA FMEA #: 3270

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 884
ITEM: CAP/REL/OFF TRISTATE LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-884A
NASA FMEA #: 3330

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 884
ITEM: CAP/REL/OFF TRISTATE LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-885
NASA FMEA #: 3360

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 885
ITEM: CAP/REL/OFF TRISTATE LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-886
NASA FMEA #: 3350

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 886
ITEM: RIG/DERIG/OFF TRISTATE LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-886A
NASA FMEA #: 3330

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 886
ITEM: RIG/DERIG/OFF TRISTATE LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-886B
NASA FMEA #: 3280

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 886
ITEM: RIG/DERIG/OFF TRISTATE LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-887
NASA FMEA #: 3350

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 887
ITEM: RIG/DERIG/OFF TRISTATE LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-887A
NASA FMEA #: 3510

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 887
ITEM: RIG/DERIG/OFF TRISTATE LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-888
NASA FMEA #: 3340

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 888
ITEM: FAIL SAFE COMMAND ON/OFF LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-889
NASA FMEA #: 3340

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 889
ITEM: FAIL SAFE COMMAND ON/OFF LEVEL DETECTOR

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-890
NASA FMEA #: 3580

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 890
ITEM: EE POWER CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-890A
NASA FMEA #: 3590

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 890
ITEM: EE POWER CONDITIONER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-890B
NASA FMEA #: 3600

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 890
ITEM: EE POWER CONDITIONER

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-891
NASA FMEA #: 3270

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 891
ITEM: CAPTURE COMMAND ENABLE LOGIC

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[NA]	[NA]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[ ]	[ ]	[N]	[ ]
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

RECOMMENDATIONS: (If different from NASA)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-891A
NASA FMEA #: 3530

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 891
ITEM: CAPTURE COMMAND ENABLE LOGIC

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-892
NASA FMEA #: 3270

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 892
ITEM: CAPTURE COMMAND ENABLE LOGIC

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-892A
NASA FMEA #: 3540

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 892
ITEM: CAPTURE COMMAND ENABLE LOGIC

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-893X
NASA FMEA #: 3960

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 893
ITEM: SPEE COIL

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
DISCUSSIONS WITH NASA AND SPAR HAVE ENABLED IOA TO MODIFY ITS ORIGINAL ASSESSMENT. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-901
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM:
MDAC ID: 901
ITEM: BOOM

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS WAS CONSIDERED A STRUCTURAL FAILURE WHICH NASA DID NOT REVIEW.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-902
NASA FMEA #: 4350-203(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 902
ITEM: ELEMENTS, HEATER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-903
NASA FMEA #: 4360-204(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 903
ITEM: THERMOSTAT

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-904
NASA FMEA #: 4370-206(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 904
ITEM: THERMISTOR

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-904A
NASA FMEA #: 4370-206(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 904
ITEM: THERMISTOR

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /1R]	[NA]	[F]	[F]	[X]
COMPARE	[/]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THE SCREEN DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-905
NASA FMEA #: 4390-207(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 905
ITEM: BLANKETS

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-905A
NASA FMEA #: 4400-207(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 905
ITEM: BLANKETS

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-906
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM:
MDAC ID: 906
ITEM: MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[ ]	[ ]	[ ]	[ ]
COMPARE	[N /N]	[ ]	[ ]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO EQUIVALENT NASA FMEA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-906A
NASA FMEA #: 4200

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 906
ITEM: MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-907
NASA FMEA #: 4210-194(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 907
ITEM: MICROSWITCH

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[ ]	[ ]	[ ]	[ ]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-908
NASA FMEA #: 4190-194(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 908
ITEM: LINEAR MOTOR (ACTUATOR)

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /2]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[ ]	[ ]	[ ]	[X]
COMPARE	[/]	[ ]	[ ]	[ ]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-909
NASA FMEA #: 4180-194(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 909
ITEM: PLUNGER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-910
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM:
MDAC ID: 910
ITEM: SPLIT COLLET

LEAD ANALYST:

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[/]	[ ]	[ ]	[ ]	[ ] *
IOA	[2 /2]	[ ]	[ ]	[ ]	[X]
COMPARE	[N /N]	[ ]	[ ]	[ ]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
THIS WAS CONSIDERED A STRUCTURAL FAILURE WHICH NASA DID NOT REVIEW.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-911
NASA FMEA #: 4190

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM:
MDAC ID: 911
ITEM: LOCKING STUB

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: RMS-912X
NASA FMEA #: 4000

NASA DATA:
BASELINE [ ]
NEW [x]

SUBSYSTEM:
MDAC ID: 912
ITEM: MECHANICAL JOINT BEARINGS

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20001
NASA FMEA #: 50-32(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20001
ITEM: MODE SELECT SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20002
NASA FMEA #: 70-32(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20002
ITEM: ENTER SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20003
NASA FMEA #: 100-33(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20003
ITEM: BRAKE SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20004
NASA FMEA #: 230-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20004
ITEM: SAFING SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NO ISSUE WITH NASA'S EVALUATION OF SCREENS.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20005
NASA FMEA #: 260-35(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20005
ITEM: PROCEED SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20006
NASA FMEA #: 280-36(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20006
ITEM: OFF CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20007
NASA FMEA #: 350-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20007
ITEM: MANUAL CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20008
NASA FMEA #: 350-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20008
ITEM: AUTO CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
NO ISSUES WITH NASA'S SCREEN EVALUATION.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20009
NASA FMEA #: 360-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20009
ITEM: CAPTURE/RELEASE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20010
NASA FMEA #: 360-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20010
ITEM: CAPTURE/RELEASE CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20011
NASA FMEA #: 370-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20011
ITEM: OFF CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20012
NASA FMEA #: 390-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20012
ITEM: OFF CONTACT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20013
NASA FMEA #: 400-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20013
ITEM: 10V POLE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20014
NASA FMEA #: 400-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20014
ITEM: 10V POLE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20015
NASA FMEA #: 420-37(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20015
ITEM: PARAMETER SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA ANALYSIS SHEET REFLECTED A 3/3 CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20016
NASA FMEA #: 500-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20016
ITEM: JOINT SELECT SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[3 /1R]	[NA]	[NA]	[NA]	[ ]
COMPARE	[N /]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:
FURTHER IOA ANALYSIS AND DISCUSSIONS WITH NASA HAVE RESOLVED THIS DISCREPANCY. IOA AGREES WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20017
NASA FMEA #: 510-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20017
ITEM: WIPER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20018
NASA FMEA #: 540-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20018
ITEM: ENABLE POLE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[P]	[P]	[ ]	[ ] *
IOA	[3 /1R]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20019
NASA FMEA #: 550-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20019
ITEM: SINGLE POLE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20020
NASA FMEA #: 560-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20020
ITEM: POSITIVE POSITION

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20021
NASA FMEA #: 560-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20021
ITEM: NEGATIVE POSITION

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20022
NASA FMEA #: 570-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20022
ITEM: OFF POSITION

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20023
NASA FMEA #: 670-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20023
ITEM: PUSH BUTTON INDICATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20024
NASA FMEA #: 760-45(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20024
ITEM: SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20025
NASA FMEA #: 770-45(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20025
ITEM: POLE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20026
NASA FMEA #: 1120-57(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20026
ITEM: DIA CONVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20027
NASA FMEA #: 1150-57A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20027
ITEM: LOWER ZENER DIODE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20028
NASA FMEA #: 1170-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20028
ITEM: PARTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20029
NASA FMEA #: 1270-58C(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20029
ITEM: LOWER ZENER DIODE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20030
NASA FMEA #: 1370-59A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20030
ITEM: DEMODULATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20031
NASA FMEA #: 1380-61(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20031
ITEM: PARTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /2]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20032
NASA FMEA #: 1390-61(a) AND 59(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20032
ITEM: +/- 12V DC, +10V DC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20033
NASA FMEA #: 1400-62(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20033
ITEM: INPUT FILTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20034
NASA FMEA #: 1450-65(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20034
ITEM: PARTS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20035
NASA FMEA #: 1470-

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20035
ITEM: INPUT FILTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

C

APPENDIX
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20036
NASA FMEA #: 1540-67A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20036
ITEM: OFF POSITION

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20037
NASA FMEA #: 1540-67A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20037
ITEM: CAPTURE POSITION

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20038
NASA FMEA #: 1540-67A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20038
ITEM: RELEASE POSITION

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20039
NASA FMEA #: 1600-69(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20039
ITEM: BEARINGS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 3/11/87
ASSESSMENT ID: RMS-20040
NASA FMEA #: 1610-70(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20040
ITEM: GEAR TEETH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20369
NASA FMEA #: 900-48(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20369
ITEM: READY LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20370
NASA FMEA #: 910

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20370
ITEM: READY LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA ANALYSIS SHEET REFLECTS A 3/3 CRITICALITY. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20371
NASA FMEA #: 900-48(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20371
ITEM: IN PROGRESS LIGHT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20372
NASA FMEA #: 910

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20372
ITEM: IN PROGRESS

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20373
NASA FMEA #: 920-50(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20373
ITEM: RATE HOLD TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20374
NASA FMEA #: 940-50(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20374
ITEM: MINIMUM RATE TALKBACK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20375
NASA FMEA #: 1040-55(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20375
ITEM: INPUT SHIFT REGISTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20376
NASA FMEA #: 1080-56(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20376
ITEM: OUTPUT SHIFT REGISTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20377
NASA FMEA #: 1240-58B(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20377
ITEM: VOLTAGE DETECTION CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA HASA NO ISSUE WITH NASA'S EVALUATION OF SCREEN B.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20378
NASA FMEA #: 1320-59A(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20378
ITEM: OSCILLATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

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

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20379
NASA FMEA #: 1430-64(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20379
ITEM: OP AMP

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /2]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
AGREE WITH NASA.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20380
NASA FMEA #: 1440-64(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20380
ITEM: DIODE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20381
NASA FMEA #: 1630-71(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20381
ITEM: GIMBAL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20382
NASA FMEA #: 620-41A(e)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20382
ITEM: INPUT CIRCUITRY

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /2]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20383
NASA FMEA #: 4490

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20383
ITEM: B/U JOINT SELECT SWITCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20506
NASA FMEA #: 2670-122(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20506
ITEM: ENCODER LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20507
NASA FMEA #: 2710-123A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20507
ITEM: FILTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20508
NASA FMEA #: 2770-125(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20508
ITEM: MAGNITUDE COMPARATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20509
NASA FMEA #: 2770-125(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20509
ITEM: MAGNITUDE COMPARATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20510
NASA FMEA #: 2780

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20510
ITEM: BITE TEST CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20511
NASA FMEA #: 2630-118(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20511
ITEM: OUTPUT LATCH

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20512
NASA FMEA #: 2820-128(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20512
ITEM: AMP BUFFER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20513
NASA FMEA #: 2840-129(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20513
ITEM: SWITCH DRIVE CIRCUITRY

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20514
NASA FMEA #: 2850-129(d)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20514
ITEM: TRANSISTOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20515
NASA FMEA #: 2860-129A(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20515
ITEM: AND GATE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[F]	[F]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA HAS NO ISSUE WITH NASA'S EVALUATION OF SCREEN A AND B.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20516
NASA FMEA #: 2870-129A(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20516
ITEM: AND GATE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20517
NASA FMEA #: 2880-129A(c)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20517
ITEM: TRANSFER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA HAS NO ISSUE WITH NASA'S EVALUATION OF SCREEN B.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20518
NASA FMEA #: 2910

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20518
ITEM: TRANSISTOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
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APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20519
NASA FMEA #: 2930

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20519
ITEM: TRANSISTOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20520
NASA FMEA #: 4550-215(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20520
ITEM: PLUM INVERTER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20521
NASA FMEA #: 2920

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20521
ITEM: TRANSISTOR, DRIVE 1 CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20522
NASA FMEA #: 2940

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20522
ITEM: TRANSISTOR, DRIVE 2 CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20523
NASA FMEA #: 3151

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20523
ITEM: FILTER

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20699
NASA FMEA #: 1730-79(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20699
ITEM: SYNL CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20700
NASA FMEA #: 1730-79(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20700
ITEM: SYNC CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITEM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20701
NASA FMEA #: 1810

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20701
ITEM: VALIDITY CHECK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20702
NASA FMEA #: 1820

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20702
ITEM: VALIDITY CHECK

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20703
NASA FMEA #: 1950-91(L)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20703
ITEM: D&C RESPONSE CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20704
NASA FMEA #: 1950-91(L)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20704
ITEM: D&C RESPONSE CIRCUIT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20705
NASA FMEA #: 2270

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20705
ITEM: RESET PULSE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA HAS NO ISSUE WITH NASA'S EVALUATION OF SCREEN A AND B.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20706
NASA FMEA #: 2390-109(g)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20706
ITEM: WRITE STROBE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20707
NASA FMEA #: 2430-109(j)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20707
ITEM: READ STROBE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITWM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20708
NASA FMEA #: 2020-96(f)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20708
ITEM: REFERENCE VOLTAGE GENERATOR

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITWM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20709
NASA FMEA #: 2140-100(a)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20709
ITEM: NAND GATE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[F]	[ ]	[X] *
IOA	[2 /1R]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
NO ISSUE WITH NASA'S EVALUATION OF SCREEN B.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20710
NASA FMEA #: 2420-109A(i)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20710
ITEM: PDC INT-2 OUTPUT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /1R]	[P]	[P]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[N /N]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[1 /1]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [X]

REMARKS:
THIS FAILURE CAUSES UNCOMMANDED MOTION OF THE ARM. UNDER IOA GROUND RULES, THIS QUALIFIES AS A 1/1 CRITICALITY. NASA GROUND RULES UTILIZE A SOFTWARE ITWM AS UNLIKE REDUNDANCY WHICH ALLOWS NASA TO LOWER THE CRITICALITY TO 2/1R. THIS ISSUE IS STILL IN DISPUTE AND UNDER DISCUSSION. ISSUE REMAINS UNRESOLVED.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20711
NASA FMEA #: 2530

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20711
ITEM: DIODE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /1R]	[F]	[F]	[ ]	[X] *
IOA	[3 /1R]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[N]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA'S EVALUATION OF THE SCREENS. NO ISSUES.

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20893
NASA FMEA #: 3770-175(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20893
ITEM: SNARE CABLE

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20894
NASA FMEA #: 3960

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20894
ITEM: COIL

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[2 /2]	[ ]	[ ]	[ ]	[X] *
IOA	[2 /2]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20895
NASA FMEA #: 3780

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20895
ITEM: CAPTURE SUPPORT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20896
NASA FMEA #: 3290

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20896
ITEM: CCW ENABLE LOGIC

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[1 /1]	[ ]	[ ]	[ ]	[X] *
IOA	[1 /1]	[NA]	[NA]	[NA]	[X]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20897
NASA FMEA #: 3300

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20897
ITEM: RELEASE/DERIGID CIRCUIT

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20912
NASA FMEA #: 4000-182(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20912
ITEM: LUBRICANT

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [X]
INADEQUATE [ ]

REMARKS:

APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/16/87
ASSESSMENT ID: RMS-20913
NASA FMEA #: 4230-196(b)

NASA DATA:
BASELINE [ ]
NEW [X]

SUBSYSTEM: RMS
MDAC ID: 20913
ITEM: BUMPER

LEAD ANALYST: B. GRASMEDER

ASSESSMENT:

	CRITICALITY FLIGHT HDW/FUNC	REDUNDANCY SCREENS A	B	C	CIL ITEM
NASA	[3 /3]	[ ]	[ ]	[ ]	[ ] *
IOA	[3 /3]	[NA]	[NA]	[NA]	[ ]
COMPARE	[/]	[N]	[N]	[N]	[ ]
RECOMMENDATIONS: (If different from NASA)					
	[/]	[ ]	[ ]	[ ]	[ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

APPENDIX D

CRITICAL ITEMS

APPENDIX D
POTENTIAL CRITICAL ITEMS

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
	361	RETURN SPRING	STRUCTURAL FAILURE
	368	RETURN SPRING	STRUCTURAL FAILURE
	410	COMMUTATOR BUFFER AMPLIFI	LOSS OF ONE CHANNEL
	426	CONTROLLER, POWER CONDITI	OPEN
	491	PWM SWITCH ELECTRONICS	OPEN
	492	+ 28V	OPEN
	496	ANALOG PROCESSOR	OPEN
	498	POWER SIGNAL CONDITIONER	OPEN
100-33(b)	20003	BRAKE SWITCH	FAILS OFF
1030-55(a)	247	CLOCK PULSE	OPEN
1030-55(a)	248	STROBE PULSE	OPEN
1050-	236	D & C ADDRESS DECODER INP	SHORTED
1050-	237	D & C ADDRESS DECODER INP	OPEN
1060	240	D & C ADDRESS DECODER OUT	LOSS OF WORD 0
1060-	238	D & C ADDRESS DECODER OUT	SHORTED
1060-	239	D & C ADDRESS DECODER OUT	OPEN
1070-56(a)	241	D & C INVERTOR NETWORK	SHORTED
1080-56(a)	20376	OUTPUT SHIFT REGISTER	OPEN
1090-46A(a)	267	OUTPUT TRANSISTOR DRIVER	OPEN
1090-46A(a)	268	OUTPUT TRANSISTOR DRIVER	LOSS OF WORD 0
1090-56A(a)	267	OUTPUT TRANSISTOR DRIVER	OPEN
1090-56A(a)	268	OUTPUT TRANSISTOR DRIVER	LOSS OF WORD 0
110-	298	28V CONTACT	OPEN
1100-56B(b)	248	STROBE PULSE	OPEN
1130-57A(a)	220	12V CONTACT	SHORTED DIODE
1150-57A(c)	20027	LOWER ZENER DIODE	SHORTED
1160-57A(d)	223	6V CONTACT	OPEN DIODE
1170-	20028	PARTS	FAILS
120-	297	28V CONTACT	SHORTED
120-	299	28V CONTACT	SHORTED
1220-58B(a)	296	K6	OPEN
1230-58B(b)	295	K6	SHORTED
1240-58B(c)	20377	VOLTAGE DETECTION CIRCUIT	SHORTED
1250-58C(a)	141	12.4V CONTACT	SHORTED DIODE
1250-58C(a)	188	12.4V CONTACT	SHORTED DIODE
1270-58C(c)	20029	LOWER ZENER DIODE	SHORTED
1290-58D(a)	287	K2	OPEN, DIRECT DRIVE
1290-58D(a)	288	K2	OPEN, CAPTURE CIRCU
1300-58D(b)	286	K1	OPEN
1310-59(a)	350	OSCILLATOR	LOSS OF OUTPUT
1310-59(a)	351	OSCILLATOR	OPEN
1310-59(a)	352	OSCILLATOR	SHORTED
1330-	352	OSCILLATOR	SHORTED
1340-60(a)	347	SIGNAL CONDITIONING DEMOD	LOSS OF OUTPUT
1340-60(a)	348	SIGNAL CONDITIONING DEMOD	OPEN
1360	349	SIGNAL CONDITIONING DEMOD	SHORTED

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
1370-59A(c)	20030	DEMODULATOR	FAILS
1380-61(a)	20031	PARTS	SHORTED
1390-61(a)	20032	+/- 12V DC, +10V DC	LOSS OF POWER
1400-62(a)	20033	INPUT FILTER	OPEN
1420-64(a)	301	LINKAGE	PHYSICAL BINDING
1420-64(a)	342	TRANSDUCER	OPEN
1430-64(b)	20379	OP AMP	OPEN
1440-64(c)	20380	DIODE	OPEN
1450-65(d)	20034	PARTS	FAIL
1460-65(e)	344	SIGNAL CONDITIONING DEMOD	LOSS OF OUTPUT
1460-65(e)	345	SIGNAL CONDITIONING DEMOD	OPEN
1460-65(e)	346	SIGNAL CONDITIONING DEMOD	SHORTED
1460-65A(f)	344	SIGNAL CONDITIONING DEMOD	LOSS OF OUTPUT
1460-65A(f)	345	SIGNAL CONDITIONING DEMOD	OPEN
1460-65A(f)	346	SIGNAL CONDITIONING DEMOD	SHORTED
1470-	20035	INPUT FILTER	FAIL
1480-66(a)	270	COARSE CONTACT	SHORTED
1490-66(b)	269	VERNIER CONTACT	SHORTED
1500-67(a)	271	10V CONTACT	SHORTED
1500-67(b)	271	10V CONTACT	SHORTED
1520-67A(a)	103	10V CONTACT	SHORTED
1520-67A(a)	189	10V CONTACT	SHORTED
1520-67A(c)	103	10V CONTACT	SHORTED
1520-67A(c)	189	10V CONTACT	SHORTED
1520-67A(d)	103	10V CONTACT	SHORTED
1520-67A(d)	189	10V CONTACT	SHORTED
1520-67B(e)	103	10V CONTACT	SHORTED
1520-67B(e)	189	10V CONTACT	SHORTED
1530-67A(c)	105	6.2V CONTACT	SHORTED
1530-67A(c)	185	12.4V CONTACT	SHORTED
1530-67A(d)	105	6.2V CONTACT	SHORTED
1530-67A(d)	185	12.4V CONTACT	SHORTED
1530-67B(e)	105	6.2V CONTACT	SHORTED
1530-67B(e)	185	12.4V CONTACT	SHORTED
1540-67A(d)	20036	OFF POSITION	FAILS STUCK
1540-67A(d)	20037	CAPTURE POSITION	FAILS STUCK
1540-67A(d)	20038	RELEASE POSITION	FAILS STUCK
1590-69(a)	272	LINKAGE	PHYSICAL BINDING
1590-69(a)	340	TRANSDUCER	OPEN
1600-69(b)	20039	BEARINGS	SEIZED
1620-70(d)	341	TRANSDUCER	SHORTED
1630-71(f)	20381	GIMBAL	FAILS TO OPERATE
1640	626	RECTIFIER MODULES	OPEN
1650	628	MIA	OPEN
1660-76(a)	635	I/P SERIAL TO PARALLEL SH	SHORTED
1660-76(a)	636	I/P SERIAL TO PARALLEL SH	OPEN
1670-76(b)	635	I/P SERIAL TO PARALLEL SH	SHORTED
1670-76(b)	636	I/P SERIAL TO PARALLEL SH	OPEN

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
1680	698	I/P LATCH (2)	OPEN
1690	696	O/P LATCH (2)	OPEN
170-34(a)	148	28V CONTACT	OPEN
1700	684	200 KHZ CLOCK	OPEN
1710-78(a)	633	O/P PARALLEL TO SERIAL SH	SHORTED
1720	688	DIRECT MEMORY ACCESS CONT	OPEN
1730-79(b)	634	O/P PARALLEL TO SERIAL SH	OPEN
1730-79(b)	20699	SYNL CIRCUIT	OPEN
1730-79(b)	20700	SYNC CIRCUIT	SHORTED
1740-80(a)	630	CLOCK DIVIDER CIRCUIT	OPEN
1760-80(c)	630	CLOCK DIVIDER CIRCUIT	OPEN
1770-80(d)	630	CLOCK DIVIDER CIRCUIT	OPEN
1770-80(d)	632	16 MHZ CRYSTAL OSCILLATOR	OPEN
1780-	630	CLOCK DIVIDER CIRCUIT	OPEN
1790	640	RECEIVE TIMING CONTROL	OPEN
180-34A(c)	145	10V CONTACT	SHORTED
1800	640	RECEIVE TIMING CONTROL	OPEN
1820	20702	VALIDITY CHECK	SHORTED
1830-83(a)	659	LOWER SERIAL SHIFT REGIST	SHORTED
1830-83(a)	661	UPPER SERIAL SHIFT REGIST	SHORTED
1840-83(b)	659	LOWER SERIAL SHIFT REGIST	SHORTED
1840-83(b)	659	LOWER SERIAL SHIFT REGIST	SHORTED
1840-83(b)	660	LOWER SERIAL SHIFT REGIST	OPEN
1840-83(b)	661	UPPER SERIAL SHIFT REGIST	SHORTED
1840-83(b)	662	UPPER SERIAL SHIFT REGIST	OPEN
1850	630	CLOCK DIVIDER CIRCUIT	OPEN
1860	630	CLOCK DIVIDER CIRCUIT	OPEN
1870-86(e)	665	LOWER SERIAL SHIFT REGIST	SHORTED
1870-86(e)	666	LOWER SERIAL SHIFT REGIST	OPEN
1870-86(e)	667	UPPER SERIAL SHIFT REGIST	SHORTED
1870-86(e)	668	UPPER SERIAL SHIFT REGIST	OPEN
1880-87(f)	663	ABE OUTPUT DRIVER	SHORTED
1880-87(f)	664	ABE OUTPUT DRIVER	OPEN
1890	676	SERIAL-PARALLEL SHIFT REG	OPEN
190-34A(c)	147	28V CONTACT	SHORTED
190-34A(c)	149	28V CONTACT	SHORTED
1910-89(h)	670	D & C STROBE	OPEN
1910-89(h)	672	D & C CLOCK	OPEN
1930-90(j)	679	PARITY CHECK LOGIC	SHORTED
1940	671	D & C CLOCK	SHORTED
1950-91(L)	20703	D&C RESPONSE CIRCUIT	OPEN
1950-91(L)	20704	D&C RESPONSE CIRCUIT	SHORTED
1960-92(a)	601	16 CHANNEL ANALOG MULTIPL	SHORTED
1970-93(b)	601	16 CHANNEL ANALOG MULTIPL	SHORTED
1970-93(b)	602	16 CHANNEL ANALOG MULTIPL	OPEN
1980	602	16 CHANNEL ANALOG MULTIPL	OPEN
1990-95(d)	608	VOLTAGE COMPARATOR	OPEN
1990-95(d)	610	ANALOG TO DIGITAL CONVERT	OPEN
20-31(b)	133	10V CONTACT	OPEN

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
200-346	152	SAFING SWITCH	OPEN
2000-	609	ANALOG TO DIGITAL CONVERT	SHORTED
2010-96(e)	607	VOLTAGE COMPARATOR	SHORTED
2020-96(f)	20708	REFERENCE VOLTAGE GENERAT	SHORTED
2040-	601	16 CHANNEL ANALOG MULTIPL	SHORTED
2050-	605	SAMPLE AND HOLD GATED OP	SHORTED
2050-	606	SAMPLE AND HOLD GATED OP	OPEN
2060	606	SAMPLE AND HOLD GATED OP	OPEN
2070	608	VOLTAGE COMPARATOR	OPEN
2080-98(a)	644	BRAKE DRIVE SWITCHES	OPEN
2090-99(b)	641	BRAKE STATUS OPTO ISOLATO	SHORTED
2090-99(b)	643	BRAKE DRIVE SWITCHES	SHORTED
210-34A(c)	151	SAFING SWITCH	SHORTED
2100-99(c)	642	BRAKE STATUS OPTO ISOLATO	OPEN
2100-99(d)	642	BRAKE STATUS OPTO ISOLATO	OPEN
2110-	641	BRAKE STATUS OPTO ISOLATO	SHORTED
2120-100(e)	642	BRAKE STATUS OPTO ISOLATO	OPEN
2140-100(a)	20709	NAND GATE	OPEN
2150-101(b)	649	DUAL 4-BIT LATCH	SHORTED
2150-101(b)	651	4-BIT MAGNITUDE COMPARATO	SHORTED
2150-101(b)	653	FRAME SYNC FAILURE DETECT	SHORTED
2170-101A(a)	655	7-BIT BINARY COUNTER	SHORTED
2180-101A(b)	652	4-BIT MAGNITUDE COMPARATO	OPEN
2180-101A(b)	654	FRAME SYNC FAILURE DETECT	OPEN
2180-101A(b)	656	7-BIT BINARY COUNTER	OPEN
2190-101B(a)	646	AUTO BRAKE CIRCUIT	OPEN
2190-101B(a)	650	DUAL 4-BIT LATCH	OPEN
220-346	146	10V CONTACT	OPEN
2200-101B(b)	645	AUTO BRAKE CIRCUIT	SHORTED
2200-101B(b)	649	DUAL 4-BIT LATCH	SHORTED
2220-102(e)	649	DUAL 4-BIT LATCH	SHORTED
2240-103(g)	649	DUAL 4-BIT LATCH	SHORTED
2250-103A(h)	647	EE AUTO LOGIC	SHORTED
2260-103A(i)	648	EE AUTO LOGIC	OPEN
2270	20705	RESET PULSE	OPEN
2280-	648	EE AUTO LOGIC	OPEN
2280-	650	DUAL 4-BIT LATCH	OPEN
2290-	647	EE AUTO LOGIC	SHORTED
2290-	649	DUAL 4-BIT LATCH	SHORTED
230-	20004	SAFING SWITCH	FAILED TO AUTO
2300-	647	EE AUTO LOGIC	SHORTED
2330-	647	EE AUTO LOGIC	SHORTED
2340-104(a)	681	CPU	SHORTED
2340-104(a)	682	CPU	OPEN
2340-104(a)	683	200 KHZ CLOCK	SHORTED
2340-104(a)	684	200 KHZ CLOCK	OPEN
2340-104(a)	690	POWER ON INIT ROUTINE LOG	OPEN
2350-105(b)	691	RAM	SHORTED
2350-105(b)	693	ROM	SHORTED

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
2360-106(c)	688	DIRECT MEMORY ACCESS CONT	OPEN
2360-106(c)	696	O/P LATCH (2)	OPEN
2360-106(c)	698	I/P LATCH (2)	OPEN
2370-107(d)	686	PARALLEL DATA CONVERTER	OPEN
2380-	686	PARALLEL DATA CONVERTER	OPEN
2390-109(g)	20706	WRITE STROBE	OPEN
2400-109(h)	685	PARALLEL DATA CONVERTER	SHORTED
2400-109(h)	685	PARALLEL DATA CONVERTER	SHORTED
2410-109(h)	685	PARALLEL DATA CONVERTER	SHORTED
2420-109A(i)	20710	PDC INT-2 OUTPUT	OPEN
2430-109(j)	20707	READ STROBE	OPEN
2440-109B(k)	682	CPU	OPEN
2450-110(a)	613	MULTIWINDING OUTPUT TRANS	SHORTED
2460-111(b)	614	MULTIWINDING OUTPUT TRANS	OPEN
2470-111(c)	614	MULTIWINDING OUTPUT TRANS	OPEN
2480-111(d)	614	MULTIWINDING OUTPUT TRANS	OPEN
2490-112(e)	614	MULTIWINDING OUTPUT TRANS	OPEN
250-35(a)	172	STOP CONTACT	OPEN
250-35(a)	174	PROCEED CONTACT	OPEN
2500-112(f)	614	MULTIWINDING OUTPUT TRANS	OPEN
2510	614	MULTIWINDING OUTPUT TRANS	OPEN
2520	620	30-KHZ TRIANGULAR WAVE GE	OPEN
2530	20711	DIODE	OPEN
2540-114(a)	448	D/A CONVERTER	SHORTED
2560-115(c)	449	D/A CONVERTER	OPEN
2560-115(c)	458	SHIFT REGISTERS	SHORTED
2560-115(c)	459	SHIFT REGISTERS	OPEN
2570-	458	SHIFT REGISTERS	SHORTED
2580-116(a)	447	+ 28V	OPEN
2590-116(b)	446	+ 28V	SHORTED
260-35(b)	20005	PROCEED SWITCH	FAILS IN PROCEED
2600-116A(a)	424	POWER-ON RESET CONTROL	SHORTED
2600-116A(a)	482	POWER "ON" RESET	SHORTED
2620-117(a)	460	DIGITAL F/B (ENCODER)	ERRONEOUS OUTPUT
2620-117(a)	461	DIGITAL F/B (ENCODER)	SHORTED
2620-117(a)	462	ANALOG F/B (COMMUTATOR)	ERRONEOUS OUTPUT
2620-117(a)	463	ANALOG F/B (COMMUTATOR)	LOSS OF OUTPUT
2630-118(a)	20511	OUTPUT LATCH	SHORTED
2640	457	3.2 MHZ OSC	LOSS OF OUTPUT
2650-121(b)	450	ENCODER FEEDBACK	ERRONEOUS OUTPUT
2660-	451	ENCODER FEEDBACK	LOSS OF OUTPUT
2670-122(a)	20506	ENCODER LATCH	SHORTED
2680-122(b)	458	SHIFT REGISTERS	SHORTED
2690	455	O/P CLOCK OR SYNCH SIGNAL	LOSS OF OUTPUT
2690-123(a)	453	I/P CLOCK OR SYNCH SIGNAL	LOSS OF OUTPUT
270-	171	STOP CONTACT	SHORTED
270-	173	PROCEED CONTACT	SHORTED
2700-123(b)	453	I/P CLOCK OR SYNCH SIGNAL	LOSS OF OUTPUT
2700-123(b)	455	O/P CLOCK OR SYNCH SIGNAL	LOSS OF OUTPUT

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
2710-123A(a)	20507	FILTER	OPEN
2720-123B(a)	433	TACH BITE	SHORTED
2720-123B(a)	457	3.2 MHZ OSC	LOSS OF OUTPUT
2720-123B(a)	458	SHIFT REGISTERS	SHORTED
2730-123B(b)	434	TACH BITE	OPEN
2780	20510	BITE TEST CIRCUIT	OPEN
2790	457	3.2 MHZ OSC	LOSS OF OUTPUT
280-36(a)	20006	OFF CONTACT	FAILS OFF
2800-126(b)	457	3.2 MHZ OSC	LOSS OF OUTPUT
2810	456	3.2 MHZ OSC	ERRONEOUS OUTPUT
2820-128(a)	485	CURRENT LIMITER	OPEN
2820-128(a)	20512	AMP BUFFER	OPEN
2830	462	ANALOG F/B (COMMUTATOR)	ERRONEOUS OUTPUT
2850-129(d)	20514	TRANSISTOR	SHORTED
2860-129A(a)	20515	AND GATE	SHORTED
2870-129A(b)	20516	AND GATE	OPEN
2880-129A(c)	20517	TRANSFER	SHORTED
2890-129B(c)	470	MDA INHIB	OPEN
290-36(b)	160	CAPTURE/RELEASE CONTACT	OPEN
290-36(b)	164	CAPTURE/RELEASE CONTACT	OPEN
2900-	469	MDA INHIB	SHORTED
2910	20518	TRANSISTOR	SHORTED
2920	20521	TRANSISTOR, DRIVE 1 CIRC	FAILS LOW
2930	20519	TRANSISTOR	SHORTED
2940	20522	TRANSISTOR, DRIVE 2 CIRC	FAILS LOW
2950-130(e)	484	CURRENT LIMITER	SHORTED
2960-131(a)	484	CURRENT LIMITER	SHORTED
2970-131(c)	504	FWD/BACKDRIVE FLAG	SHORTED
2980-131(d)	505	FWD/BACKDRIVE FLAG	OPEN
2990-132(c)	485	CURRENT LIMITER	OPEN
30-31(c)	132	10V CONTACT	SHORTED
300-36(c)	156	RIGIDIZE/DERIGIDIZE CONTA	OPEN
300-36(c)	158	RIGIDIZE/DERIGIDIZE CONTA	OPEN
3000-132(d)	478	MDA BITE LOGIC	SHORTED
3010-132A(e)	485	CURRENT LIMITER	OPEN
3020-133A(c)	479	MDA BITE LOGIC	OPEN
3040-133(b)	473	PWM GENERATOR	OPEN
3050	475	COMMUTATOR I/P SIGNAL	OPEN
3060	473	PWM GENERATOR	OPEN
3070-135(a)	468	+ 15V	OPEN
3080-136(a)	477	DIR/ B/U /BRAKE SWITCHING	OPEN
310-36(d)	162	10V CONTACT	OPEN
310-36(d)	166	10V CONTACT	OPEN
3100-137(c)	477	DIR/ B/U /BRAKE SWITCHING	OPEN
3110-138(a)	472	MTR TRANSFER RELAY	OPEN
3120-139(b)	472	MTR TRANSFER RELAY	OPEN
3130-139(c)	471	MTR TRANSFER RELAY	SHORTED
3140-140(d)	472	MTR TRANSFER RELAY	OPEN
3150-	471	MTR TRANSFER RELAY	SHORTED

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
3160-142(a)	428	CONVERTER, POWER CONDITIO	OPEN
3160-142(a)	429	CONVERTER, POWER CONDITIO	ERRONEOUS OUTPUT
3160-142(a)	430	CONVERTER, POWER CONDITIO	ERRONEOUS OUTPUT
3170	435	PROTECTOR, POWER CONDITIO	SHORTED
3180-143(c)	435	PROTECTOR, POWER CONDITIO	SHORTED
3190	427	CONTROLLER, POWER CONDITI	ERRONEOUS OUTPUT
320-36A(e)	159	CAPTURE/RELEASE CONTACT	SHORTED
320-36A(e)	163	CAPTURE/RELEASE CONTACT	SHORTED
3220-146(a)	439	SCU	OPEN
3220-146(a)	440	SCU	ERRONEOUS OUTPUT
3220-146(b)	439	SCU	OPEN
3220-146(b)	440	SCU	ERRONEOUS OUTPUT
3230	876	CAP/REL BRAKE & CLUTCH FA	SHORTED
3230	877	CAP/REL BRAKE & CLUTCH FA	OPEN
3250	874	RIG/DERIG BRAKE & CLUTCH	SHORTED
3250	875	RIG/DERIG BRAKE & CLUTCH	OPEN
3260	872	CAP/REL BRAKE & CLUTCH AC	SHORTED
3260	873	CAP/REL BRAKE & CLUTCH AC	OPEN
3270	884	CAP/REL/OFF TRISTATE LEVE	SHORTED
3270	891	CAPTURE COMMAND ENABLE LO	OPEN
330-36A(f)	155	RIGIDIZE/DERIGIDIZE CONTA	SHORTED
330-36A(f)	157	RIGIDIZE/DERIGIDIZE CONTA	SHORTED
3340	889	FAIL SAFE COMMAND ON/OFF	OPEN
3350	886	RIG/DERIG/OFF TRISTATE LE	SHORTED
3360	885	CAP/REL/OFF TRISTATE LEVE	OPEN
3380	845	EEEU BITE	FAILS ON
340-36A(g)	161	10V CONTACT	SHORTED
3400-153(c)	835	CLOSED MSW SIGNAL CONDITI	FAIL OFF
3410	838	OPEN MSW SIGNAL CONDITION	FAIL ON
3440-155(g)	832	DERIGIDIZED MSW SIGNAL CO	FAIL ON
3450-156(h)	830	RIGIDIZE MSW SIGNAL CONDI	FAIL ON
3460	831	RIGIDIZE MSW SIGNAL CONDI	FAIL OFF
350-	20007	MANUAL CONTACT	FAILS STUCK
350-	20008	AUTO CONTACT	FAILS STUCK
3500	837	PL CAPTURE MSW SIGNAL CON	FAIL OFF
3520	874	RIG/DERIG BRAKE & CLUTCH	SHORTED
3540	892	CAPTURE COMMAND ENABLE LO	SHORTED
3560	870	OUTPUT DRIVER	ERRONEOUS OUTPUT
3570	841	RIGID/DERIGID BRAKE/CLUTC	OPEN POWER SWITCH
3580	890	EE POWER CONDITIONER	SHORTED
3590	890	EE POWER CONDITIONER	SHORTED
360-	20009	CAPTURE/RELEASE CONTACT	FAILS STUCK
360-	20010	CAPTURE/RELEASE CONTACT	FAILS STUCK
3610	852	BEARINGS	PHYSICAL BINDING
3610	861	STATOR	SHORTED
3620	862	STATOR	OPEN
3630	811	CAPTURE CLUTCH	FAILED OFF DISENGAGE
3640	810	CAPTURE CLUTCH	FAILED ON ENGAGED
3640-166(c)	813	RIGIDIZE CLUTCH	FAILED DISENGAGED

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
3650	863	ROTOR	PHYSICAL BINDING
3660	865	LED	SHORTED
3660	866	LED	OPEN
3660-169(a)	868	COMMUTATOR AMP	ERRONEOUS
3670	864	PHOTO CELL (3)	OPEN
3680	867	COMMUTATOR AMP	LOSS OF OUTPUT
3680	871	ROTATING DISK	PHYSICAL BINDING
370-	20011	OFF CONTACT	FAILS STUCK
3700	858	BU CLUTCH	FAILURE TO OPEN
3700-171(a)	802	SNARE	STRUCTURE FAILURE
3710-171(b)	853	BU GEARTRAIN	STRUCTURAL FAILURE
3710-171(b)	854	BU GEARTRAIN	PHYSICAL BINDING
3740	808	RIBIDIZE BRAKE	FAILED OFF
3750	855	BU SPRING	STRUCTURAL FAILURE
3790	816	RIGIDIZE DRIVE	JAMMING
380-	165	10V CONTACT	SHORTED
3800	817	RIGIDIZE DRIVE	FAILS FREE
3800-176(a)	804	CARRIAGE	STRUCTURAL FAILURE
3810	803	CARRIAGE	JAMMING
3820	851	RIGIDIZE MICROSWITCH	FAILS OFF
3850	819	DERIGID MICROSWITCH	FAILS OFF
3880	824	OPEN MICROSWITCH	FAILS ON
390-	20012	OFF CONTACT	FAILS STUCK
3910	821	CLOSED MICROSWITCH	FAILS OFF
3930	823	CAPTURE MICROSWITCH	FAILS ON
3950-	856	BU SPRING	STRUCTURAL FAILURE
3950-	859	BU CLUTCH	SHORTED
3950-	860	BU CLUTCH	OPEN
3960	20894	COIL	OPEN
3970-	285	K1	SHORTED
3980-	286	K1	OPEN
3990-182(a)	417	GEARBOX (G1)	GEARBOX JAM
3990-182(a)	419	GEARBOX (G2)	GEARBOX JAMS
400-	20013	10V POLE	FAILS STUCK
400-	20014	10V POLE	FAILS STUCK
4000-182(b)	20912	LUBRICANT	WEARS OUT
4010-183(c)	406	MOTOR SHAFT	MOTOR FAILS
4010-183(c)	416	GEARBOX (G1)	SHAFT FRACTURES
4010-183(c)	418	GEARBOX (G2)	SHAFT FRACTURES
4020-183(a)	401	ENCODER PHOTO DETECTORS	ERRATIC OUTPUT
4020-183(a)	402	ENCODER PHOTO DETECTORS	FAIL OFF
4020-183(a)	403	ENCODER ROTATING DISK	ERRATIC OUTPUT
4020-183(a)	442	POSITION ENCODER DATA PRO	ERRATIC OUTPUT
4030-184(b)	443	POSITION ENCODER DATA PRO	OPEN
4040-	441	POSITION ENCODER DATA PRO	ERRONEOUS OUTPUT
4050-185(a)	404	MOTOR-STATOR	MOTOR FAILS OFF
4050-185(b)	404	MOTOR-STATOR	MOTOR FAILS OFF
4060	404	MOTOR-STATOR	MOTOR FAILS OFF
4070-186(c)	405	MOTOR BEARINGS	MOTOR FAILS

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
4080-186(d)	407	MOTOR SHAFT AND PININON G	MOTOR FAILS
4090-186A(e)	406	MOTOR SHAFT	MOTOR FAILS
4100-187(a)	501	ELECTRICAL	OPEN
4100-187(a)	503	MECHANICAL	FAILS TO OPEN
4110-187(b)	500	ELECTRICAL	SHORTED
4120-188(c)	502	MECHANICAL	FAILS TO CLOSE
4120-1886(d)	502	MECHANICAL	FAILS TO CLOSE
4130-189(a)	420	TACHOMETER ROTOR	NO OUTOUT
4130-189(a)	421	TACHOMETER ROTOR	ERRONEOUS OUTPUT
4130-189(b)	420	TACHOMETER ROTOR	NO OUTOUT
4130-189(b)	421	TACHOMETER ROTOR	ERRONEOUS OUTPUT
4140-190(a)	411	COMMUTATOR LED	NO OUTPUT
4150-191(c)	409	COMMUTATOR BUFFER AMPLIFI	NO OUTPUT
4160-192(b)	412	COMMUTATOR PHOTO SENSOR	LOSS OF ONE CHANNEL
4160-192(b)	413	COMMUTATOR PHOTO SENSOR	LOSS OF 2
4160-192(b)	414	COMMUTATOR OUTPUT DRIVER	NO OUTPUT
4160-192(b)	415	COMMUTATOR OUTPUT DRIVER	LOSS OF ONE CHANNEL
4170-193(d)	408	COMMUTATOR ROTATING DISK	ERRATIC OUTPUT
4190-194(b)	908	LINEAR MOTOR (ACTUATOR)	BINDING
4350-203(a)	902	ELEMENTS, HEATER	OPEN
4360-204(a)	903	THERMOSTAT	OPEN/SHORTED
4410-209(a)	204	28V CONTACT	OPEN
4420-209(b)	203	28V CONTACT	SHORTED
4430-210(a)	198	ENABLE CONTACT	OPEN
4430-210(a)	202	ENABLE CONTACT	OPEN
4430-210(a)	206	COMMAND CONTACT	OPEN
4430-210(a)	208	COMMAND CONTACT	OPEN
4440-210(b)	197	ENABLE CONTACT	SHORTED
4440-210(b)	201	ENABLE CONTACT	SHORTED
4440-210(b)	205	COMMAND CONTACT	SHORTED
4440-210(b)	207	COMMAND CONTACT	SHORTED
4450	210	28V CONTACT	OPEN
4460-211(a)	210	28V CONTACT	OPEN
4470-211(b)	210	28V CONTACT	OPEN
4480-211(c)	209	28V CONTACT	SHORTED
4490	20383	B/U JOINT SELECT SWITCH	SHORTED
4500-212(a)	494	BDA PWR CONDITIONER	OPEN
4510	494	BDA PWR CONDITIONER	OPEN
4520-214(d)	493	BDA PWR CONDITIONER	SHORTED
4530-	494	BDA PWR CONDITIONER	OPEN
4540-215(a)	497	POWER SIGNAL CONDITIONER	SHORTED
4560-216(a)	488	PWM	SHORTED
4570-216(b)	489	PWM	OPEN
4580	487	MTR TRANSFER RELAY	OPEN
490-39(c)	228	10V CONTACT	SHORTED
490-39(c)	230	12V CONTACT	SHORTED
50-32(d)	20001	MODE SELECT SWITCH	STOCK
500-	20016	JOINT SELECT SWITCH	FAILS STUCK
510-	20017	WIPER	FAILS STUCK

NASA FMEA	MDAC-ID	ITEM	FAILURE MODE
530-40(b)	213	28V ENABLE CONTACT	SHORTED
530-40(b)	215	28V ENABLE CONTACT	SHORTED
530-40(b)	217	12V CONTACT	SHORTED
530-40(b)	224	10V CONTACT	SHORTED
530-40(b)	226	10V CONTACT	SHORTED
540-	20018	ENABLE POLE	FAILS OFF
550-	20019	SINGLE POLE	FAILS OFF
560-	20020	POSITIVE POSITION	FAILED STUCK
560-	20021	NEGATIVE POSITION	FAILED STUCK
570-	20022	OFF POSITION	FAILED STUCK
60-32(a)	102	ENTER PUSH BUTTON INDICAT	OPEN
620-41A(e)	20382	INPUT CIRCUITRY	SHORTED
70-32(b)	20002	ENTER SWITCH	FAILS OFF
760-45(a)	20024	SWITCH	FAILS OFF
770-45(a)	20025	POLE	FAILS OFF
780-45A(c)	139	12.4V CONTACT	SHORTED
790-45A(d)	143	10V CONTACT	SHORTED
80-	101	ENTER PUSH BUTTON INDICAT	SHORTED
800-45A(c)	134	6.2V CONTACT	SHORTED
810-45A(a)	137	10V CONTACT	SHORTED
820-	140	12.4V CONTACT	OPEN
830-	135	6.2V CONTACT	OPEN
840-	144	10V CONTACT	OPEN
840-	166	10V CONTACT	OPEN
90-33(a)	300	28V CONTACT	OPEN
980-53(a)	279	115V CONTACT	OPEN
980-53(a)	283	115V CONTACT	OPEN

APPENDIX E
DETAILED ANALYSIS

This appendix contains the IOA analysis worksheets supplementing previous results reported in STSEOS Working Paper 1.0-WP-VA86001-023, Analysis of the Remote Manipulator System, (12 January 1987). Prior results were obtained independently and documented before starting the FMEA/CIL assessment activity. Supplemental analysis was performed to address failure modes not previously considered by the IOA. Each sheet identifies the hardware item being analyzed, parent assembly and function performed. For each failure mode possible causes are identified, and hardware and functional criticality for each mission phase are determined as described in NSTS 22206, Instructions for Preparation of FMEA and CIL, 10 October 1986. Failure mode effects are described at the bottom of each sheet and worst case criticality is identified at the top.

LEGEND FOR IOA ANALYSIS 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 Screen A:

- 1 = Is Checked Out PreFlight
- 2 = Is Capable of Check Out PreFlight
- 3 = Not Capable of Check Out PreFlight
- NA = Not Applicable

Redundancy Screens B and C:

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

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20001 ABORT: /

ITEM: MODE SELECT SWITCH
FAILURE MODE: STOCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.MD.4

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
MODE OF OPERATION CANNOT BE CHANGED.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20002 ABORT: /

ITEM: ENTER SWITCH
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.ENT.2

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ENTER CAPABILITY. LOSS OF ALL COMPUTER AUGMENTED MODES

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87
SUBSYSTEM: RMS
MDAC ID: 20003

HIGHEST CRITICALITY HDW/FUNC
FLIGHT: 2/1R
ABORT: /

ITEM: BRAKE SWITCH
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.BRK.6

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF BRAKES

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20004 ABORT: /

ITEM: SAFING SWITCH
FAILURE MODE: FAILED TO AUTO

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.SF.8

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
WILL NOT BE ABLE TO CANCEL OR INITIATE MCIU SAFING.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20005 ABORT: /

ITEM: PROCEED SWITCH
FAILURE MODE: FAILS IN PROCEED OR SLOT MODE

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.AS.4

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
CANNOT ENTER AUTO SEQUENCE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20006 ABORT: /

ITEM: OFF CONTACT
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) OFF POSITION
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.10

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF PRIMARY EE COMMANDS.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20007 ABORT: /

ITEM: MANUAL CONTACT
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) MANUAL POSITION
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.11

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF AUTO EE CAPABILITIES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20008 ABORT: /

ITEM: AUTO CONTACT
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) AUTO POSITION
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.12

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF MANUAL EE CAPABILITIES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20009 ABORT: /

ITEM: CAPTURE/RELEASE CONTACT
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) MANUAL POSITION
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.13

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL PRIMARY CAPTURE AND RELEASE CAPABILITYL.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20010 ABORT: /

ITEM: CAPTURE/RELEASE CONTACT
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) AUTO POSITION
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.14

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL PRIMARY CAPTURE AND RELEASE CAPABILITY.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20011 ABORT: /

ITEM: OFF CONTACT
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) MANUAL POSITION
5) RIGIDIZE POLE
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.15

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL PRIMARY EE RIGIDIZE AND DERIGIDIZE CAPABILITY.
POSSIBLE UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20012 ABORT: /

ITEM: OFF CONTACT
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) 10V POLE
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.16

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF AUTO AND MANUAL MODE SELECT FLAG. POSSIBLE UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20013 ABORT: /

ITEM: 10V POLE
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) AUTO POSITION
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.17

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
PERMANENT AUTO SELECT FLALG. POSSIBLE UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87
SUBSYSTEM: RMS
MDAC ID: 20014

HIGHEST CRITICALITY HDW/FUNC
FLIGHT: 1/1
ABORT: /

ITEM: 10V POLE
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) MANUAL POSITION
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.18

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
PERMANENT MANUAL SELECT FLAG. POSSIBLE UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20015 ABORT: /

ITEM: PARAMETER SWITCH
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.PS.3

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
SAME DATA WILL BE DISPLAYED ALL THE TIME ON LEDs.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/1R
MDAC ID: 20016 ABORT: /

ITEM: JOINT SELECT SWITCH
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC/SD/KS/3

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSE ABILITY TO CHANGE JOINT FOR SINGLE AND DIRECT DIRVE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20017 ABORT: /

ITEM: WIPER
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) JOINT SELECT SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.JS.4

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ONLY STUCK JOINT WILL DRIVE. POSSIBLE UNCOMMANDED MOTION

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87
SUBSYSTEM: RMS
MDAC ID: 20018

HIGHEST CRITICALITY HDW/FUNC
FLIGHT: 3/1R
ABORT: /

ITEM: ENABLE POLE
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) SINGLE/DIRECT DRIVE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.SD.10

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF DIRECT DRIVE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/1R
MDAC ID: 20019 ABORT: /

ITEM: SINGLE POLE
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) SINGLE/DIRECT DRIVE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.SD.11

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF SINGLE DRIVE

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20020 ABORT: /

ITEM: POSITIVE POSITION
FAILURE MODE: FAILED STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) SINGLE/DIRECT DRIVE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.SD.12

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
JOINT WILL DRIVE WITHOUT COMMAND. UNCOMMANDED MOTION.

REFERENCES:

C-10

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20021 ABORT: /

ITEM: NEGATIVE POSITION
FAILURE MODE: FAILED STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) SINGLE/DIRECT DRIVE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.SD.13

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
JOINT WILL DRIVE WITHOUT COMMAND. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20022 ABORT: /

ITEM: OFF POSITION
FAILURE MODE: FAILED STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) SINGLE/DIRECT DRIVE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.SD.14

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF SINGLE AND DIRECT DRIVE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20023 ABORT: /

ITEM: PUSH BUTTON INDICATOR
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) MASTER ALARM
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.MA.2

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
CANNOT CANCEL MASTER ALARM AND AUDIO.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20024 ABORT: /

ITEM: SWITCH
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MANUAL COINTROL
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EMC.7

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ABILITY TO RIGIDIZE OR DERIGIDIZE END EFFECTOR. POSSIBLE UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20025 ABORT: /

ITEM: POLE
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MANUAL CONTROL
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EMC.8

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ARM WILL NOT LIMP. POSSIBLE UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20026 ABORT: /

ITEM: DIA CONVERTER
FAILURE MODE: FAILS

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) DATA BUS
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.DB.10

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ONE OR BOTH RATE INDICATORS WILL BE I ERROR.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20027 ABORT: /

ITEM: LOWER ZENER DIODE
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) SINGLE/DIRECT DRIVE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.SD.15

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
POSITIVE COMMANDS WILL BECOME NEGATIVE. NEGATIVE COMMANDS ARE LOST. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/1R
MDAC ID: 20028 ABORT: /

ITEM: PARTS
FAILURE MODE: FAILS

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) SINGLE/DIRECT DRIVE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.SD.16

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF DIRECT DRIVE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20029 ABORT: /

ITEM: LOWER ZENER DIODE
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) END EFFECTOR MODE SWITCH
4) MANUAL POSITION
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.EEM.19

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF MANUAL CAPTURE/RELEASE AND RIGIDIZE/DERIGIDIZE FUNCTIONS.
POSSIBLE UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20030 ABORT: /

ITEM: DEMODULATOR
FAILURE MODE: FAILS

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) HAND CONTROLLERS
4) TRANSLATIONAL HAND CONTROLLER
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.THC.5

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
UNCOMMANDED MOTION IONE OR MORE AXIS.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/2
MDAC ID: 20031 ABORT: /

ITEM: PARTS
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) POWER SUPPLY
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/2	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.PS.1

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF LIGHTING AND SHOULDER BRACE REALEASE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20032 ABORT: /

ITEM: +/- 12V DC, +10V DC
FAILURE MODE: LOSS OF POWER

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) CONDITIONED POWER
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.CP.1

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20033 ABORT: /

ITEM: INPUT FILTER
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) 18V POWER SUPPLY
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.PS.2

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20034 ABORT: /

ITEM: PARTS
FAILURE MODE: FAIL

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) HAND CONTROLLERS
3) ROTATIONAL HAND CONTROLLERS
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.RHC.5

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF OUTPUT SIGNAL FROM THE RHC. POSSIBLE UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20035 ABORT: /

ITEM: INPUT FILTER
FAILURE MODE: FAIL

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) HAND CONTROLLERS
3) ROTATIONAL HAND CONTROLLER
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.RHC.6

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
UNCOMMANDED OUTPUT IN ALL AXIS. UNCOMMANDED MOTION .

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20036 ABORT: /

ITEM: OFF POSITION
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) CAPTURE/RELEASE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.CR.7

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ABILITY TO CAPTURE OR RELE3ASE PAYLOAD.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20037 ABORT: /

ITEM: CAPTURE POSITION
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) CAPTURE/RELEASE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.CR.8

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF RELEASE CAPABILITY. UNCOMMANDED EE MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20038 ABORT: /

ITEM: RELEASE POSITION
FAILURE MODE: FAILS STUCK

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) CAPTURE/RELEASE SWITCH
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.CR.9

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
UNCOMMANDED RELEASE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20039 ABORT: /

ITEM: BEARINGS
FAILURE MODE: SEIZED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) HAND CONTROLLERS
3) TRANSLATIONAL HAND CONTROLLER
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.THC.6

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
PERMANENT OUTPUT ON ONE OR MORE AXIS. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 3/11/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20040 ABORT: /

ITEM: GEAR TEETH
FAILURE MODE: BROKEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) HAND CONTROLLERS
3) TRANSLATIONAL HAND CONTROLLER
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.THC.7

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
HAND CONTROLLER DEGRADED OUTPUT.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87
SUBSYSTEM: RMS
MDAC ID: 20369

HIGHEST CRITICALITY HDW/FUNC
FLIGHT: 3/3
ABORT: /

ITEM: READY LIGHT
FAILURE MODE: FAILED OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES AND DISPLAYS
3) AUTO SEQUENCE
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.AS.4

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LIGHT WILL NEVER INDICATE AUTO SEQUENCE IS READY.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87
SUBSYSTEM: RMS
MDAC ID: 20370

HIGHEST CRITICALITY HDW/FUNC
FLIGHT: 2/2
ABORT: /

ITEM: READY LIGHT
FAILURE MODE: FAILED ON

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES AND DISPLAYS
3) AUTO SEQUENCE
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.AS.4

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LIGHT WILL ALWAYS INDICATE AUTO SEQUENCE IS READY.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20371 ABORT: /

ITEM: IN PROGRESS LIGHT
FAILURE MODE: FAILS OFF

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES AND DISPLAYS
3) AUTO SEQUENCE
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.AS.5

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LIGHT WILL NEVER SHOW AUTO SEQUENCE IS IN PROGRESS.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20372 ABORT: /

ITEM: IN PROGRESS
FAILURE MODE: FAILS ON

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES AND DISPLAYS
3) AUTO SEQUENCE
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.AS.5

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LIGHT WILL ALWAYS SHOW AUTO SEQUENCE TO BE IN PROGRESS.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20373 ABORT: /

ITEM: RATE HOLD TALKBACK
FAILURE MODE: FAILS TO OPERATE

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES AND DISPLAYS
3) RATE METERS
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.RM.4

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
RATE HOLD TALKBACK WILL NOT CHANGE WHEN RATE HOLD IS ENGAGED OR DISENGAGED.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20374 ABORT: /

ITEM: MINIMUM RATE TALKBACK
FAILURE MODE: FAILS TO OPERATE

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES AND DISPLAYS
3) RATE METERS
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.RM.5

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
MINIMUM RATE TALKBACK WILL NOT CHANGE WHEN OARSE OR VERNIER IS SELECT4ED.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20375 ABORT: /

ITEM: INPUT SHIFT REGISTER
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) DATA BUS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.DB.10

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ERRONEOUS DATA IS SENT TO THE D&C PANEL.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20376 ABORT: /

ITEM: OUTPUT SHIFT REGISTER
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) DATA BUS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.DB.11

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF DATA TO THE MCIU. LOSS OF ALL COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20377 ABORT: /

ITEM: VOLTAGE DETECTION CIRCUIT
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.VD.1

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF AUTO SAFING CAPABILITY

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20378 ABORT: /

ITEM: OSCILLATOR
FAILURE MODE: INCREASED OUTPUT VOLTAGE

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) HAND CONTROLLERS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.XX.1

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
THC AND RHC OUTPUTS WILL BE HIGHER.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20379 ABORT: /

ITEM: OP AMP
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) HAND CONTROLLERS
3) ROTATIONAL HAND CONTROLLER
4) ELECTRICAL
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.RHC.5

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
MAXIMUMS COMMANDS IN EITHER DIRECTION TMCIU. LOSS OF MANUAL AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20380 ABORT: /

ITEM: DIODE
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) HAND CONTROLLERS
3) ROTATIONAL HAND CONTROLLER
4) ELECTRICAL
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.RHC.6

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ARM WILL NOT TRAVEL AT COMMANDED RATE. UNCOMMANDED MOTION

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20381 ABORT: /

ITEM: GIMBAL
FAILURE MODE: FAILS TO OPERATE

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) HAND CONTROLLERS
3) TRANSLATIONAL HAND CONTROLLER
4) MECHANICAL
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.HC.THC.5

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ERRATIC OUTPUT FROM THC. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/2
MDAC ID: 20382 ABORT: /

ITEM: INPUT CIRCUITRY
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3) LIGHTING
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/2	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER: DC.SD.LTG.5

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF SHOULDER BRACE RELEASE. LOSS OF D&C DISPLAYS.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20383 ABORT: /

ITEM: B/U JOINT SELECT SWITCH
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) DISPLAYS AND CONTROLS
2) SWITCHES/DISPLAYS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: DISPLAY AND CONTROL PANEL
PART NUMBER:

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
INCORRECT SELECTION OF JOINT.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20506 ABORT: /

ITEM: ENCODER LATCH
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) TACH ELECTRONICS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.TE.15

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ERRONEOUS DATA TRANSMITTED TO MCIU. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20507 ABORT: /

ITEM: FILTER
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) TACH ELECTRONICS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.TE.16

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF STATUS SIGNAL FOR EEEU, JPC BITE, AND SHOULDER BRAKE.
UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20508 ABORT: /

ITEM: MAGNITUDE COMPARATOR
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) TACH ELECTRONICS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.TE.17

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
SPEED FLAG DOES NOT CORRESPOND WITH ACTUAL ROTATIONAL VELOCITY OF THE SERVO MOTOR.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20509 ABORT: /

ITEM: MAGNITUDE COMPARATOR
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) TACH ELECTRONICS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.TE.17

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
SPEED FLAG DOES NOT CORRESPOND WITH ACTUAL ROTATIONAL VELOCITY OF THE SERVO MOTOR.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20510 ABORT: /

ITEM: BITE TEST CIRCUIT
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.MDA.17

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20511 ABORT: /

ITEM: OUTPUT LATCH
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) TACH ELECTRONICS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.TE.18

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ERRONEOUS DATA IS SENT TO THE GPC, UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20512 ABORT: /

ITEM: AMP BUFFER
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.MDA.18

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ERROR SIGNAL TO PLUM IS ZERO. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/1R
MDAC ID: 20513 ABORT: /

ITEM: SWITCH DRIVE CIRCUITRY
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.MDA.19

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
DIRECT DRIVE IN A PARTICULAR DIRECTION IS LIST.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20514 ABORT: /

ITEM: TRANSISTOR
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.MDA.20

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
DIRECT DRIVE WILL BE PERMANENTLY SELECTED.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87
SUBSYSTEM: RMS
MDAC ID: 20515

HIGHEST CRITICALITY HDW/FUNC
FLIGHT: 2/1R
ABORT: /

ITEM: AND GATE
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.MDA.21

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
CIRCUIT IS ENABLED WITH D&C SWITCH OFF.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/1R
MDAC ID: 20516 ABORT: /

ITEM: AND GATE
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.MDA.22

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
DIRECT DRIVE IS INOPERATIVE IN ONE JOINT.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20517 ABORT: /

ITEM: TRANSFER
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) BRAKE
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.BRK.3

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF AUTO BRAKE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20518 ABORT: /

ITEM: TRANSISTOR
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.MDA.23

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
HIGH OUTPUT ON DIRECT DRIVE/OUTPUT. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20519 ABORT: /

ITEM: TRANSISTOR
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.MDA.24

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
HIGH OUTPUT ON DIRECT DRIVE 2 OUTPUT. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20520 ABORT: /

ITEM: PLUM INVERTER
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) BDA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ABE.BDA.8

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
JOINT MOTOR WILL DRIVE AT HIGHER RATE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/1R
MDAC ID: 20521 ABORT: /

ITEM: TRANSISTOR, DRIVE 1 CIRCUIT
FAILURE MODE: FAILS LOW

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3) MOTOR SIGNAL CONTROLLER
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER:

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOW OUTPUT ON DIRECT DRIVE 1.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20522 ABORT: /

ITEM: TRANSISTOR, DRIVE 2 CIRCUIT
FAILURE MODE: FAILS LOW

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) ARM BASED ELECTRONICS
2) MDA
3) MOTOR SIGNAL CONTROLLER
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER:

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOW OUTPUT PON DIRECT DRIVE 2 CCW OUTPUT

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20523 ABORT: /

ITEM: FILTER
FAILURE MODE: SHORTED

LEAD ANALYST: SUBSYS LEAD:

BREAKDOWN HIERARCHY:
1) ABE
2) SPA
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [ ] B [ ] C [ ]

LOCATION: ARM
PART NUMBER:

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF JOINT DRIVE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20699 ABORT: /

ITEM: SYNL CIRCUIT
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) COMPUTER INTERFACE BOARD
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCIU.CI.8

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ERRONEOUS DATA IS GENERATED. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20700 ABORT: /

ITEM: SYNC CIRCUIT
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) COMPUTER INTERFACE BOARD
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.CI.8

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ERRONEOUS DATA IS GENERATED. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20701 ABORT: /

ITEM: VALIDITY CHECK
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) COMPUTER INTERFACE BOARD
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.CI.9

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF GPC FAILURE ANNUNCIATION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20702 ABORT: /

ITEM: VALIDITY CHECK
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) COMPUTER INTERFACE BOARD
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.CI.9

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20703 ABORT: /

ITEM: D&C RESPONSE CIRCUIT
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) DIGITAL INTERFACE BOARD
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.DI.12

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20704 ABORT: /

ITEM: D&C RESPONSE CIRCUIT
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) DIGITAL INTERFACE BOARD
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.DI.12

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20705 ABORT: /

ITEM: RESET PULSE
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) FAILURE DETECTION BOARD
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.FD.10

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20706 ABORT: /

ITEM: WRITE STROBE
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) MICROCOMPUTER
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCUL.MC.10

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF ALL COMPUTER AUGMENTED MODES.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20707 ABORT: /

ITEM: READ STROBE
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) MICROCOMPUTER
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.MC.11

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
ABE, D&C, AND MADC DATA LOST. UNCOMMANDED MOTION

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20708 ABORT: /

ITEM: REFERENCE VOLTAGE GENERATOR
FAILURE MODE: SHORTED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) MADC
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.AD.7

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
HAND CONTROLLER VALUE WILL ERRONEOUS. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20709 ABORT: /

ITEM: NAND GATE
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) MCU.FD.11
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.FD.11

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF AUTO SAFING.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20710 ABORT: /

ITEM: PDC INT-2 OUTPUT
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) MICROCOMPUTER
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.MC.12

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
MCIU STROBE COUNTER FAILS. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/1R
MDAC ID: 20711 ABORT: /

ITEM: DIODE
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MCIU
2) MCPC
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: MCIU
PART NUMBER: MCU.PC.8

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF PROTECTION CIRCUITRY.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20893 ABORT: /

ITEM: SNARE CABLE
FAILURE MODE: FRAYED

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) END EFFECTOR
2) MECHANISMS
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: END EFFECTOR
PART NUMBER: EE.MCH.8

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
NO EFFECT ON CREW/VEHICLE OR MISSION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87
SUBSYSTEM: RMS
MDAC ID: 20894

HIGHEST CRITICALITY HDW/FUNC
FLIGHT: 2/2
ABORT: /

ITEM: COIL
FAILURE MODE: OPEN

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) END EFFECTOR
2) EEEU
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/2	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: END EFFECTOR
PART NUMBER: EE.EU.19

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
LOSS OF SPEE POWER.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20895 ABORT: /

ITEM: CAPTURE SUPPORT
FAILURE MODE:

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) END EFFECTOR
2) MECHANICAL
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: END EFFECTOR
PART NUMBER:

CAUSES: CASE FRACTURES

EFFECTS/RATIONALE:
CANNOT CAPTURE/RELEASE OR RIGIDIZE/DERIGIDIZE.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20896 ABORT: /

ITEM: CCW ENABLE LOGIC
FAILURE MODE: FAILS HIGH

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) END EFFECTOR
2) EEEU
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: END EFFECTOR
PART NUMBER:

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
UNEXPECTED MOTION, INCOMPLETE RIGIDIZATION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 2/1R
MDAC ID: 20897 ABORT: /

ITEM: RELEASE/DERIGID CIRCUIT
FAILURE MODE:

LEAD ANALYST: SUBSYS LEAD:

BREAKDOWN HIERARCHY:
1) END EFFECTOR
2) EEEU
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	2/1R	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: END EFFECTOR
PART NUMBER:

CAUSES: PIECE PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
CONSTANT CAPTURE/RIGID.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 1/1
MDAC ID: 20912 ABORT: /

ITEM: LUBRICANT
FAILURE MODE: WEARS OUT

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MECHANICAL ARM
2)
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	1/1	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ARM.BM.2

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
MOVEMENT OF JOINT IS DEGRADED. UNCOMMANDED MOTION.

REFERENCES:

INDEPENDENT ORBITER ASSESSMENT
ORBITER SUBSYSTEM ANALYSIS WORKSHEET

DATE: 2/19/87 HIGHEST CRITICALITY HDW/FUNC
SUBSYSTEM: RMS FLIGHT: 3/3
MDAC ID: 20913 ABORT: /

ITEM: BUMPER
FAILURE MODE: DAMAGE

LEAD ANALYST: B. GRASMEDER SUBSYS LEAD: G. RAFFAELLI

BREAKDOWN HIERARCHY:
1) MECHANICAL ARM
2)
3)
4)
5)
6)
7)
8)
9)

CRITICALITIES

FLIGHT PHASE	HDW/FUNC	ABORT	HDW/FUNC
PRELAUNCH:	/	RTLS:	/
LIFTOFF:	/	TAL:	/
ONORBIT:	3/3	AOA:	/
DEORBIT:	/	ATO:	/
LANDING/SAFING:	/		

REDUNDANCY SCREENS: A [NA] B [NA] C [NA]

LOCATION: ARM
PART NUMBER: ARM.BM.A3

CAUSES: PIECE-PART STRUCTURAL FAILURE

EFFECTS/RATIONALE:
NO EFFECT ON CREW/VEHICLE OR MISSION.

REFERENCES:

APPENDIX F

NASA FMEA TO IOA WORKSHEET CROSS REFERENCE/RECOMMENDATIONS

This section provides a cross reference between the NASA FMEA and corresponding IOA analysis worksheet(s) included in Appendix E. The Appendix F identifies: NASA FMEA Number, IOA Assessment Number, NASA criticality and redundancy screen data, and IOA recommendations.

Appendix F Legend

Code	Definition
1	Item still under discussion. No resolution at this time.
2	IOA recommends deleting the IOA failure mode.

APPENDIX F

NASA FMEA TO IOA WORKSHEET CROSS REFERENCE / RECOMMENDATIONS

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *					
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
		/				/					
	RMS-177	/				/					
	RMS-178	/				/					
	RMS-179	/				/					
	RMS-180	/				/					
	RMS-181	/				/					
	RMS-182	/				/					
	RMS-183	/				/					
	RMS-184	/				/					
	RMS-191	/				/					
	RMS-192	/				/					
	RMS-193	/				/					
	RMS-194	/				/					
	RMS-195	/				/					
	RMS-196	/				/					
	RMS-199	/				/					
	RMS-200	/				/					
	RMS-232	/				/					
	RMS-246	/				/					
	RMS-251	/				/					
	RMS-252	/				/					
	RMS-253	/				/					
	RMS-254	/				/					
	RMS-255	/				/					
	RMS-260	/				/					
	RMS-261	/				/					
	RMS-262	/				/					
	RMS-263	/				/					
	RMS-289	/				/					
	RMS-290	/				/					
	RMS-291	/				/					
	RMS-292	/				/					
	RMS-293	/				/					
	RMS-294	/				/					
	RMS-302	/				/					
	RMS-303	/				/					
	RMS-304	/				/					
	RMS-305	/				/					
	RMS-306	/				/					
	RMS-307	/				/					
	RMS-308	/				/					
	RMS-309	/				/					
	RMS-310	/				/					
	RMS-311	/				/					
	RMS-312	/				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
	RMS-313	/				/					
	RMS-314	/				/					
	RMS-315	/				/					
	RMS-316	/				/					
	RMS-317	/				/					
	RMS-318	/				/					
	RMS-319	/				/					
	RMS-320	/				/					
	RMS-321	/				/					
	RMS-322	/				/					
	RMS-323	/				/					
	RMS-324	/				/					
	RMS-325	/				/					
	RMS-326	/				/					
	RMS-327	/				/					
	RMS-328	/				/					
	RMS-329	/				/					
	RMS-330	/				/					
	RMS-331	/				/					
	RMS-332	/				/					
	RMS-333	/				/					
	RMS-334	/				/					
	RMS-335	/				/					
	RMS-336	/				/					
	RMS-337	/				/					
	RMS-338	/				/					
	RMS-339	/				/					
	RMS-362	/				/					
	RMS-364	/				/					
	RMS-366	/				/					
	RMS-367	/				/					
	RMS-492	2/1R				/					
	RMS-901	/				/					
	RMS-906	/				/					
	RMS-910	/				/					
05-6ID-2076-1	RMS-007X	3/3	NA	NA	NA	/				15	
	RMS-008X	3/3	NA	NA	NA	/				15	
05-6ID-2126-2	RMS-001X	3/2R	NA	NA	NA	/				11	
05-6ID-2127-2	RMS-002X	3/2R	NA	NA	NA	/				11	
05-6ID-2128-2	RMS-003X	3/2R	NA	NA	NA	/				11	
05-6ID-2129-2	RMS-004X	3/2R	NA	NA	NA	/				11	
05-6ID-2130-2	RMS-005X	3/2R	NA	NA	NA	/				11	
05-6ID-2131-2	RMS-006X	3/2R	NA	NA	NA	/				11	
10-31(a)	RMS-133	3/1R	P	P		/					
100-33(b)	RMS-20003	2/1R	P	P		/					
1000-	RMS-277	3/3				/					
	RMS-281	3/3				/					
1010-53(a)	RMS-284	3/3				/					
1020-	RMS-276	3/3				/					
	RMS-280	3/3				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
1030-55(a)	RMS-247	2/1R	P	P		/					
	RMS-248A	2/1R	P	P	P	/					
1040-55(b)	RMS-20375	3/3				/					
1050	RMS-249	1/1				/					
	RMS-250	1/1				/					
1050-	RMS-236	1/1				/					
	RMS-237	1/1				/					
1060	RMS-240	1/1				/					
1060-	RMS-238	1/1				/					
	RMS-239	1/1				/					
1070	RMS-243	2/1R	P	P	P	/					
	RMS-244	2/1R	P	P	P	/					
	RMS-257	2/1R	P	P	P	/					
	RMS-259	2/1R	P	P	P	/					
1070-56(a)	RMS-241	2/1R	P	P	P	/					
1071	RMS-242	1/1				/					
	RMS-245	1/1				/					
	RMS-256	1/1				/					
	RMS-258	1/1				/					
1080-56(a)	RMS-20376	2/1R	P	P		/					
1090	RMS-264	1/1				/					
	RMS-265	1/1				/					
	RMS-266	1/1				/					
1090-46A(a)	RMS-267A	1/1				/					
	RMS-268A	1/1				/					
1090-56A(a)	RMS-267	1/1				/					
	RMS-268	1/1				/					
110-	RMS-298	1/1	P	P	P	/					
1100-56B(b)	RMS-248	3/3				/					
1110-57(a)	RMS-273A	3/3				/					
	RMS-274	3/3				/					
1120-57(b)	RMS-20026	3/3				/					
1130-57A(a)	RMS-220	1/1				/					
1140-57A(b)	RMS-219	3/1R	P	P		/					
1150-57A(c)	RMS-20027	1/1				/					
1160-57A(d)	RMS-223	1/1				/					
1170-	RMS-20028	3/1R	P	P		/					
1180-58(a)	RMS-116A	3/3				/					
1190-58(b)	RMS-117A	3/3				/					
120-	RMS-297	2/1R	P	P	P	/					
	RMS-299	2/1R	P	P	P	/					
1200-58A(a)	RMS-117B	3/3				/					
1210	RMS-116B	3/3				/					
1220-58B(a)	RMS-296	2/1R	P	P	P	/					
1230-58B(b)	RMS-295	2/1R	P	F	P	/					
1240-58B(c)	RMS-20377	2/1R	P	F		/					
1250-58C(a)	RMS-141	1/1				/					
	RMS-188	1/1				/					
1260-58C(b)	RMS-142	3/1R				/					
	RMS-187	3/1R	P	P		/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
1270-58C(c)	RMS-20029	1/1				/					
1280-58C(d)	RMS-107	3/1R	P	P		/					
	RMS-136	3/1R	P	P		/					
1290-58D(a)	RMS-287	1/1				/					
	RMS-288	1/1				/					
130-	RMS-167	3/3				/					
1300-58D(b)	RMS-286	1/1				/					
1310-59(a)	RMS-350	2/1R	P	P		/					
	RMS-351	2/1R	P	P		/					
	RMS-352	2/1R	P	P		/					
1320-59A(d)	RMS-20378	3/3				/					
1330-	RMS-352A	2/1R	P	P		/					
1340-60(a)	RMS-347	1/1				/					
	RMS-348	1/1				/					
1360	RMS-349	2/2				/					
1370-59A(c)	RMS-20030	1/1				/					
1380-61(a)	RMS-20031	2/2				/					
1390-61(a) AND 59(b)	RMS-20032	2/1R	P	P		/					
140-	RMS-169	3/3				/					
1400-62(a)	RMS-20033	2/1R	P	P		/					
1410-62A(a)	RMS-211	3/3				/					
	RMS-212A	3/3				/					
1420	RMS-343	1/1				/					
1420-64(a)	RMS-301	1/1				/					
	RMS-342	1/1				/					
1430-64(b)	RMS-20379	2/2	P	P		/					
1440-64(c)	RMS-20380	1/1				/					
1450-65(d)	RMS-20034	1/1				/					
1460	RMS-361	1/1				/					
1460-65(e)	RMS-344	1/1				/					
	RMS-345	1/1				/					
	RMS-346	1/1				/					
1460-65A(f)	RMS-344A	1/1				/					
	RMS-345A	1/1				/					
	RMS-346A	1/1				/					
1470-	RMS-20035	1/1				/					
1480-66(a)	RMS-270	1/1				/					
1490-66(b)	RMS-269	3/3				/					
150-	RMS-168	3/3				/					
1500-67(a)	RMS-271	1/1				/					
1500-67(b)	RMS-271A	1/1				/					
1520-67A(a)	RMS-103	1/1				/					
	RMS-189	1/1				/					
1520-67A(c)	RMS-103A	1/1				/					
	RMS-189A	1/1				/					
1520-67A(d)	RMS-103B	1/1				/					
	RMS-189B	1/1				/					
1520-67B(e)	RMS-103C	1/1				/					
	RMS-189C	1/1				/					
1530-67A(c)	RMS-105	1/1				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
1530-67A(c)	RMS-185	1/1				/					
1530-67A(d)	RMS-105A	1/1				/					
	RMS-195A	1/1				/					
1530-67B(e)	RMS-105B	1/1				/					
	RMS-185B	1/1				/					
1540-67A(d)	RMS-20036	1/1				/					
	RMS-20037	1/1				/					
	RMS-20038	1/1				/					
1550-67(a)	RMS-104	3/2R	P	P		/					
1560-67(a)	RMS-190	3/1R	F	F	P	/					
1570-67(b)	RMS-186	3/2R	P	P		/					
1580-67(b)	RMS-106	3/1R	P	P		/					
1590-69(a)	RMS-272	1/1				/					
	RMS-340	1/1				/					
160-	RMS-170	3/3				/					
1600	RMS-368	1/1				/					
1600-69(b)	RMS-20039	1/1				/					
1610-70(c)	RMS-20040	3/3				/					
1620-70(d)	RMS-341	1/1				/					
1630-71(f)	RMS-20381	1/1				/					
1640	RMS-626	2/1R	P	F	NA	/					
	RMS-637	2/1R				1/1			1		X
	RMS-638	2/1R				/					
1650	RMS-627	2/1R				1/1			1		X
	RMS-628	2/1R	P	F	NA	/					
	RMS-639	2/1R				1/1			1		X
1660-76(a)	RMS-633	2/1R	P	P		1/1			1		X
	RMS-636	2/1R	P	P		/					
1670-76(b)	RMS-635A	2/1R	P	P		1/1			1		X
	RMS-636A	2/1R	P	P		/					
1680	RMS-698A	2/1R	P	F	NA	/					
1690	RMS-696A	2/1R	P	P		/					
170-34(a)	RMS-148	2/1R	P	P	P	/					
1700	RMS-684A	2/1R	P	F	NA	/					
1710-78(a)	RMS-633	2/1R	P	P		1/1			1		X
1720	RMS-688A	2/1R	P	F	NA	/					
1730-79(b)	RMS-20699	2/1R	P	P		1/1			1		X
	RMS-20700	2/1R	P	P		1/1			1		X
	RMS-634	2/1R	P	P		/					
1740-80(a)	RMS-630	2/1R	P	P		/					
1740/1760/1770/1790	RMS-629	2/1R				1/1			1		X
1760-80(c)	RMS-630A	2/1R	P	P		/					
1770	RMS-631	2/1R				1/1			1		X
1770-80(d)	RMS-630B	2/1R	P	P		/					
	RMS-632	2/1R	P	P		/					
1780-	RMS-630C	2/1R	P	P		/					
1790	RMS-640	2/1R	P	F	NA	/					
180-34A(c)	RMS-145	2/1R	P	P	P	/					
1800	RMS-640A	2/1R	P	F	NA	/					
1810	RMS-20701	3/3				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *					
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
1820	RMS-20702	2/1R	P	P		/					
1830-83(a)	RMS-659	2/1R	P	P		1/1				1	X
	RMS-661	2/1R	P	P		1/1				1	X
1840-83(b)	RMS-659A	2/1R	P	P		1/1				1	X
	RMS-660	2/1R				/					
	RMS-661A	2/1R	P	P		1/1				1	X
	RMS-662	2/1R	P	P		/					
1850	RMS-630E	2/1R	P		NA	/					
1860	RMS-630D	2/1R	P	F	NA	/					
1870-86(e)	RMS-665	1/1				/					
	RMS-666	1/1				/					
	RMS-667	1/1				/					
	RMS-668	1/1				/					
1880-87(f)	RMS-663	2/1R	P	P		1/1				1	X
	RMS-664	2/1R	P	P		/					
1890	RMS-673	2/1R				1/1				1	X
	RMS-674	2/1R				/					
	RMS-675	2/1R				1/1				1	X
	RMS-676	2/1R	P	F	NA	/					
190-34A(c)	RMS-147	3/1R	F	F	P	/					
	RMS-149	3/1R	F	F	P	/					
1900-88(g)	RMS-680	3/3				/					
1910	RMS-669	2/1R				/					
1910-89(h)	RMS-670	2/1R	P	P		/					
	RMS-672	2/1R	P	P		/					
1930-90(j)	RMS-679	2/1R	P	P		/					
1940	RMS-671	1/1				/					
1950	RMS-677	2/1R				/					
	RMS-678	2/1R				/					
1950-91(L)	RMS-20703	2/1R	P	P		/					
	RMS-20704	2/1R	P	P		/					
1960	RMS-603	1/1				/					
1960-92(a)	RMS-601	1/1				/					
1970	RMS-604	2/1R	P	P	P	/					
1970-93(b)	RMS-601A	2/1R	P	P		1/1				1	X
	RMS-602	2/1R	P	P		/					
1980	RMS-602A	3/1R	P	P	NA	/					
1990-95(d)	RMS-608	2/1R	P	P		/					
	RMS-610	2/1R	P	P		/					
1990/2000	RMS-611	2/1R				1/1				1	X
	RMS-612	2/1R				/					
20-31(b)	RMS-133A	2/1R	P	P	P	/					
200-346	RMS-152	2/1R	P	P		/					
2000-	RMS-609	2/1R	P	P		1/1				1	X
2010-96(e)	RMS-607	2/1R	P	P		/					
2020-96(f)	RMS-20708	2/1R	P	P		1/1				1	X
2030	RMS-608B	3/1R	P	P	NA	/					
2040-	RMS-601B	2/1R	P	P		1/1				1	X
2050-	RMS-605	2/1R	P	P		1/1				1	X
	RMS-606	2/1R	P	P		/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *					
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
2060	RMS-606A	2/1R	P		NA	/					
2070	RMS-608A	2/1R	P		NA	/					
2080-98(a)	RMS-644	2/1R	P	P		/					
2090-99(b)	RMS-641	2/1R	P	F		/					
	RMS-643	2/1R	P	F		/					
210-34A(c)	RMS-151	2/1R	P	F		/					
2100-99(c)	RMS-642	2/1R	P	P		/					
2100-99(d)	RMS-642A	2/1R	P	P		/					
2110-	RMS-641A	3/3				/					
2120-100(e)	RMS-642B	2/1R	P	P		/					
2130	RMS-650	3/3				/					
2140-100(a)	RMS-20709	2/1R	P	F		/					
2150	RMS-653	2/1R				/					
2150-101(b)	RMS-649	2/1R	P	P		/					
	RMS-651	2/1R	P	P		/					
	RMS-653	2/1R	P	P		/					
2160	RMS-657	2/1R	F	F		/					
2170-101A(a)	RMS-655	2/1R	P	P		/					
2180-101A(b)	RMS-652	2/1R	F	F		/					
	RMS-654	2/1R	F	F		/					
	RMS-656	2/1R	F	F		/					
2190-101B(a)	RMS-646	2/1R	P	F		/					
	RMS-650A	2/1R	P	F		/					
220-346	RMS-146	3/1R	P	F		/					
2200-101B(b)	RMS-645	2/1R	P	P		/					
	RMS-649A	2/1R	P	P		/					
2210-102(d)	RMS-650B	3/3				/					
2220-102(e)	RMS-649B	3/3				/					
2230-103(f)	RMS-650C	3/3				/					
2240-103(g)	RMS-649C	3/3				/					
2250-103A(h)	RMS-647	1/1				/					
2250-103A(i)	RMS-648	1/1				/					
2270	RMS-20705	2/1R	F	F		/					
2280-	RMS-648A	1/1				/					
	RMS-650D	1/1				/					
2290-	RMS-647A	3/3				/					
	RMS-649D	3/3				/					
230-	RMS-20004	2/1R	P	F		/					
2300-	RMS-647B	1/1				/					
2310-	RMS-648B	3/1R	P	P		/					
2320-	RMS-648C	3/1R	P	P		/					
2330-	RMS-647C	1/1				/					
2340-104(a)	RMS-681	2/1R	P	P		1/1				1	X
	RMS-682	2/1R	P	P		/					
	RMS-683	2/1R	P	P		1/1				1	X
	RMS-684	2/1R	P	P		/					
	RMS-690	2/1R	P	P		/					
2350	RMS-692	2/1R	P	P		/					
	RMS-694	2/1R	P	P		/					
2350-105(b)	RMS-691	2/1R	P	P		1/1				1	X

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *					
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
2350-105(b)	RMS-693	2/1R	P	P		1/1				1	X
2360	RMS-687	2/1R	P	P		1/1				1	X
	RMS-695	2/1R	P	P		1/1				1	X
	RMS-697	2/1R	P	P		/				1	X
2360-106(c)	RMS-688	2/1R	P	P		/					
	RMS-696	2/1R	P	P		/					
	RMS-698	2/1R	P	P		/					
2370-107(d)	RMS-686	2/1R	P	P		/					
2380-	RMS-686A	2/1R	P	P		/					
2390-109(g)	RMS-20706	2/1R	P	P		/					
240-346	RMS-150	3/3				/					
2400-109(h)	RMS-685	2/1R	P	P		1/1				1	X
2410-109(h)	RMS-685B	2/1R	P	P		1/1				1	X
2420-109A(i)	RMS-20710	2/1R	P	P		1/1				1	X
2430-109(j)	RMS-20707	2/1R				1/1				1	X
2440	RMS-689	2/1R	P	P		1/1				1	X
2440-109B(k)	RMS-682A	2/1R	P	P		/					
2450	RMS-615	2/1R				1/1				1	X
	RMS-616	2/1R				/					
	RMS-617	2/1R				1/1				1	X
	RMS-618	2/1R				/					
	RMS-619	2/1R				1/1				1	X
	RMS-621	2/1R				1/1				1	X
	RMS-622	2/1R				/					
	RMS-623	2/1R				1/1				1	X
	RMS-624	2/1R				/					
	RMS-625	2/1R				1/1				1	X
2450-110(a)	RMS-613	2/1R	P	P		1/1				1	X
2460-111(b)	RMS-614	2/1R	P	P		/					
2470-111(c)	RMS-614A	2/1R	P	P		/					
2480-111(d)	RMS-614B	2/1R	P	P		/					
2490-112(e)	RMS-614C	2/1R	P	P		/					
250-35(a)	RMS-172	1/1				/					
	RMS-174	1/1				/					
2500-112(f)	RMS-614D	2/1R	P	P		/					
2510	RMS-614E	2/1R	P	F		/					
2520	RMS-620	2/1R	P	F		/					
2530	RMS-20711	3/1R	F	F		/					
2540-114(a)	RMS-448	2/1R	P	P		1/1				1	X
2560-115(c)	RMS-449	1/1				/					
	RMS-458	1/1				/					
	RMS-459	1/1				/					
2570-	RMS-458A	2/1R	P	P		1/1				1	X
2580-116(a)	RMS-447	1/1				/					
2590-116(b)	RMS-446	2/1R	P	F	P	/					
260-35(b)	RMS-20005	1/1				/					
2600-116A(a)	RMS-424	2/1R	P	P		1/1				1	X
	RMS-482	2/1R	P	P		1/1				1	X
2610-116A(b)	RMS-425	3/3				/					
	RMS-483	3/3				/					

IDENTIFIERS		NASA				IDA RECOMMENDATIONS *				
NASA FMEA NUMBER	IDA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
2620-117(a)	RMS-460	2/1R	P	P		1/1			1		X
	RMS-461	2/1R	P	P		/					
	RMS-462	2/1R	P	P		1/1			1		X
	RMS-463	2/1R	P	P		/					
2630-118(a)	RMS-20511	2/1R	P	P		1/1			1		X
2640	RMS-457C	2/1R	P	F		/					
2650-121(b)	RMS-450	2/1R	P	P		1/1			1		X
2660-	RMS-451	1/1				/					
2670-122(a)	RMS-20506	2/1R	P	P		1/1			1		X
2680-122(b)	RMS-458B	2/1R	P	P		1/1			1		X
2690	RMS-455	2/1R	P	P		/					
2690-123(a)	RMS-453	2/1R	P	P		/					
2690/2700	RMS-452	2/1R	P	P		1/1			1		X
	RMS-454	2/1R	P	P		1/1			1		X
270-	RMS-171	1/1				/					
	RMS-173	1/1				/					
2700-123(b)	RMS-453A	2/1R	P	P		/					
	RMS-455A	2/1R	P	P		/					
2710-123A(a)	RMS-20507	1/1				/					
2720-123B(a)	RMS-433	2/1R	P	P		/					
	RMS-457	2/1R	P	P		/					
	RMS-458C	2/1R	P	P		/					
2730-123B(b)	RMS-434	3/1R	F	F		/					
2740-	RMS-431	3/3				/					
	RMS-432	3/3				/					
2750-	RMS-423	3/3				/					
2760-	RMS-422	3/3				/					
2770-125(b)	RMS-20508	3/3				/					
	RMS-20509	3/3				/					
2780	RMS-20510	2/1R				/					
2790	RMS-457B	2/1R	P	F		/					
280-36(a)	RMS-20006	2/1R	P	P		/					
2800-126(b)	RMS-457A	2/1R	P	P		/					
2810	RMS-456	1/1				/					
2820-128(a)	RMS-20512	1/1				/					
	RMS-485	1/1				/					
2830	RMS-462A	1/1				/					
2840-129(c)	RMS-20513	3/1R	P	P		/					
2850-129(d)	RMS-20514	1/1				/					
2860-129A(a)	RMS-20515	2/1R	F	F		/					
2870-129A(b)	RMS-20516	3/1R	P	P		/					
2880	RMS-476	2/1R	P	F	P	/					
2880-129A(c)	RMS-20517	2/1R	P	F		/					
2890-129B(c)	RMS-470	2/1R	P	F		/					
290-36(b)	RMS-160	1/1				/					
	RMS-164	1/1				/					
2900-	RMS-469	1/1				/					
2910	RMS-20518	2/1R	P	P		1/1			1		X
2920	RMS-20521	3/1R	P	P	NA	/					
2930	RMS-20519	1/1				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
2940	RMS-20522	1/1				/					
2950-130(a)	RMS-484	2/1R	P	P		1/1				1	X
2960-131(a)	RMS-484A	3/3				/					
	RMS-485A	3/3				/					
2970-131(c)	RMS-504	2/1R	P	F		/					
2980-131(d)	RMS-505	1/1				/					
2990	RMS-480	1/1				/					
2990-132(c)	RMS-485B	1/1				/					
30-31(c)	RMS-132	2/1R	P	P	P	/					
300-36(c)	RMS-156	1/1				/					
	RMS-158	1/1				/					
3000-132(d)	RMS-478	1/1				/					
3010-132A(e)	RMS-485C	2/1R	P	P		1/1				1	X
3020-133A(c)	RMS-479	2/1R	F	F		/					
3030	RMS-473B	1/1				/					
3040-133(b)	RMS-473	1/1				/					
3050	RMS-475	1/1				/					
3060	RMS-464	1/1				/					
	RMS-473A	1/1				/					
3070	RMS-474	1/1				/					
	RMS-491	1/1				/					
3070-135(a)	RMS-468	1/1				/					
3080-136(a)	RMS-477	1/1				/					
3090	RMS-465	3/1R	P	P		/					
3090-137(b)	RMS-477A	3/1R	P	P		/					
310-36(d)	RMS-162	1/1	P	P		/					
	RMS-166	1/1				/					
3100-137(c)	RMS-477B	2/1R	P			/					
3110-138(a)	RMS-472	1/1				/					
3120	RMS-486	2/1R	F	P	P	/					
3120-139(b)	RMS-472A	2/1R	F	P		/					
3130-139(c)	RMS-471	1/1				/					
3140-140(d)	RMS-472B	1/1				/					
3150-	RMS-471A	2/1R	F	F		/					
3151	RMS-20523	1/1				/					
3160	RMS-426	1/1				/					
	RMS-445	1/1				/					
	RMS-466	1/1				/					
	RMS-467	1/1				/					
3160-142(a)	RMS-428	1/1				/					
	RMS-429	1/1				/					
	RMS-430	1/1				/					
3170	RMS-435A	2/1R	P	P		1/1				1	X
3180	RMS-444	2/1R	P	P		1/1				1	X
3180-143(c)	RMS-435	2/1R	P	P		1/1				1	X
3190	RMS-427	1/1				/					
320-36A(e)	RMS-159	2/1R	F	F		/					
	RMS-163	2/1R	F	F		/					
3200-	RMS-437	3/3				/					
	RMS-438	3/3				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
3210-	RMS-436	3/3				/					
3220-146(a)	RMS-439	2/1R	P	P		1/1				1	X
	RMS-440	2/1R	P	P		1/1				1	X
3220-146(b)	RMS-439A	2/1R	P	P		1/1				1	X
	RMS-440A	2/1R	P	P		1/1				1	X
3230	RMS-876	2/1R	NA	NA		/					
	RMS-877	2/1R	NA	NA		/					
3240	RMS-878	2/1R				/					
	RMS-879	2/1R				/					
3250	RMS-874	1/1	P	P		/					
	RMS-875	1/1	NA	NA		/					
3260	RMS-872	1/1	NA	NA		/					
	RMS-873	1/1				/					
3270	RMS-884	1/1	NA	NA		/					
	RMS-891	1/1	NA	NA		/					
	RMS-892	1/1				/					
3280	RMS-886B	1/1				/					
3290	RMS-20896	1/1				/					
330-36A(f)	RMS-155	2/1R	F	F	P	/					
	RMS-157	2/1R	F	F	P	/					
3300	RMS-20897	2/1R	P	P	P	/					
3310	RMS-882	1/1				/					
3320	RMS-883	1/1				/					
3330	RMS-849	1/1				/					
	RMS-880	1/1				/					
	RMS-881	1/1				/					
	RMS-884A	1/1				/					
	RMS-886A	1/1				/					
3340	RMS-888	2/1R	F	F		/					
	RMS-889	2/1R	F	F		/					
3350	RMS-866	1/1	NA	NA		/					
	RMS-887	1/1	NA	NA		/					
3360	RMS-885	1/1	NA	NA		/					
3370	RMS-844	2/1R	F	F		/					
3380	RMS-845	2/1R	P	P		/					
3390	RMS-834	3/2R	P	P		/					
340-36A(g)	RMS-161	1/1	P	P		/					
3400-153(c)	RMS-835	1/1				/					
3410	RMS-838	1/1	NA	NA	NA	/					
3420	RMS-839	3/2R	P	P		/					
3430-155(f)	RMS-833	3/1R	P	P		/					
3440-153(g)	RMS-832	1/1				/					
3450-156(h)	RMS-830	1/1				/					
3460	RMS-831	1/1	NA	NA		/					
3470-157(j)	RMS-828	3/1R	P	P		/					
3480	RMS-829	3/3	NA	NA	NA	/					
3490	RMS-836	3/2R	P	P		/					
350-	RMS-20007	2/1R	P	F		/					
	RMS-20008	2/1R	P	F		/					
3500	RMS-837	1/1	NA	NA	NA	/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
3510	RMS-887A	1/1				/					
3520	RMS-874A	2/1R	F	F		/					
3530	RMS-891A	1/1				/					
3540	RMS-892A	2/1R	F	F		/					
3550	RMS-840A	1/1				/					
	RMS-841A	1/1				/					
3560	RMS-843	1/1				/					
	RMS-847	1/1				/					
	RMS-869	1/1				/					
	RMS-870	1/1				/					
3570	RMS-840	1/1				/					
	RMS-841	1/1				/					
	RMS-842	1/1				/					
	RMS-846	1/1				/					
3580	RMS-890	1/1	NA	NA		/					
3590	RMS-890A	2/1R	F	F		/					
360-	RMS-20009	1/1				/					
	RMS-20010	1/1				/					
3600	RMS-890B	1/1				/					
3610	RMS-852	1/1	NA	NA		/					
	RMS-861	1/1	NA	NA		/					
3620	RMS-862	1/1	NA	NA		/					
3630	RMS-806	1/1				/					
	RMS-811	1/1	NA	NA		/					
	RMS-812	1/1				/					
3640	RMS-807	1/1				/					
	RMS-809	1/1				/					
	RMS-810	1/1	NA	NA		/					
3640-166(c)	RMS-813	1/1				/					
3650	RMS-863	1/1	NA	NA		/					
3660	RMS-865	1/1	NA	NA		/					
	RMS-866	1/1	NA	NA		/					
3660-169(a)	RMS-868	1/1				/					
3670	RMS-864	1/1	NA	NA		/					
3680	RMS-867	1/1	NA	NA		/					
	RMS-871	1/1	NA	NA		/					
370-	RMS-20011	1/1				/					
3700	RMS-858	1/1	NA	NA		/					
3700-171(a)	RMS-802	1/1				/					
3710-171(b)	RMS-853	1/1				/					
	RMS-854	1/1				/					
3720	RMS-801	1/1				/					
	RMS-805	1/1				/					
3730	RMS-811A	1/1				/					
3740	RMS-808	2/1R	F	F		/					
3750	RMS-855	1/1	NA	NA		/					
3760	RMS-802A	1/1				/					
3770	RMS-802B	3/3				/					
3770-175(b)	RMS-20693	3/3				/					
3780	RMS-20895	1/1				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
3790	RMS-814	1/1				/					
	RMS-815	1/1				/					
	RMS-816	1/1	NA	NA		/					
380-	RMS-165	2/1R	P	F		/					
3800	RMS-817	1/1	NA	NA		/					
3800-176(a)	RMS-904	1/1				/					
3810	RMS-803	1/1				/					
3820	RMS-851	3/1R	NA	NA		/					
3830	RMS-850	1/1				/					
3840-177A(a)	RMS-818	3/1R	P	P		/					
3850	RMS-819	1/1	NA	NA		/					
3860-	RMS-827	3/1R	P	P		/					
3870-	RMS-826	3/3	NA	NA		/					
3880	RMS-824	1/1	NA	NA		/					
3890	RMS-821	3/2R				/					
	RMS-825	3/2R				/					
390-	RMS-20012	1/1				/					
3900	RMS-820	2/1R				/					
3910	RMS-821A	1/1	NA	NA		/					
3920	RMS-822	3/2R	P	P		/					
3930	RMS-823	2/1R	F	F		/					
3940	RMS-857	1/1				/					
3950-	RMS-856	2/1R	P	F		/					
	RMS-859	2/1R	P	F		/					
	RMS-860	2/1R	P	F		/					
3960	RMS-20894	2/2				/					
	RMS-393X	2/1R				/					
3970-	RMS-285	1/1				/					
3980-	RMS-286A	3/2R	F	F	P	/					
3981	RMS-324A	1/1				/					
3950-182(a)	RMS-417	1/1				/					
	RMS-419	1/1				/					
40-	RMS-154	3/1R	P	P		/					
400-	RMS-20013	1/1				/					
	RMS-20014	1/1				/					
4000	RMS-912X	1/1				/					
4000-182(b)	RMS-20912	1/1				/					
4010-183(c)	RMS-406	1/1				/					
	RMS-416	1/1				/					
	RMS-418	1/1				/					
4020-183(a)	RMS-401	2/1R	F	P		1/1			1		X
	RMS-402	2/1R	F	P		1/1			1		X
	RMS-403	2/1R	F	P		1/1			1		X
	RMS-442	2/1R	F	P		1/1			1		X
4030-184(b)	RMS-443	2/1R	P	P		1/1			1		X
4040-	RMS-441	2/1R	F	P		/					
4050-185(a)	RMS-404	1/1				/					
4050-185(b)	RMS-404B	1/1				/					
4060	RMS-404A	1/1				/					
4070-186(c)	RMS-405	1/1				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *					
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
4080-186(d)	RMS-407	1/1				/					
4090-186A(e)	RMS-406A	1/1				/					
41	RMS-153	2/1R	P	F	P	/					
410-37(a)	RMS-235	3/3				/					
4100-187(a)	RMS-501	1/1				/					
	RMS-503	1/1				/					
4110-187(b)	RMS-500	2/1R				/					
4120-188(c)	RMS-502	1/1				/					
4120-1886(d)	RMS-502A	1/1				/					
4130-189(a)	RMS-420	2/1R	P	P		1/1				1	X
	RMS-421	2/1R	P	P		1/1				1	X
4130-189(b)	RMS-420A	2/1R	P	P		1/1				1	X
	RMS-421A	2/1R	P	P		1/1				1	X
4140-190(a)	RMS-411	1/1				/					
4150-191(c)	RMS-409	1/1				/					
4160	RMS-410	1/1				/					
4160-192(b)	RMS-412	1/1				/					
	RMS-413	1/1				/					
	RMS-414	1/1				/					
	RMS-415	1/1				/					
4170	RMS-499	1/1				/					
4170-193(d)	RMS-408	1/1				/					
4180-194(a)	RMS-909	3/3				/					
4190	RMS-911	2/2				/					
4190-194(b)	RMS-908	2/2				/					
420-37(b)	RMS-20015	3/3				/					
4200	RMS-906A	3/3				/					
4210-194(d)	RMS-907	3/3				/					
4230-196(b)	RMS-20913	3/3				/					
430-	RMS-234	3/3				/					
4320-202(a)	RMS-363	2/1R	P	F		/					
	RMS-365	2/1R	P	F		/					
4350-203(a)	RMS-902	3/1R	F	F		/					
4360-204(a)	RMS-903	3/1R	F	F		/					
4370-206(a)	RMS-904	3/1R	P	P		/					
4370-206(e)	RMS-904A	3/1R	P	P		/					
4390-207(a)	RMS-905	3/3				/					
440-	RMS-233	3/3				/					
4400-207(b)	RMS-905A	3/3				/					
4410-209(a)	RMS-204	2/1R	P	P	P	/					
4420-209(b)	RMS-203	1/1				/					
4430-210(a)	RMS-198	2/1R	P	F		/					
	RMS-202	2/1R	P	F		/					
	RMS-206	2/1R	P	F		/					
	RMS-208	2/1R	P	F		/					
4440-210(b)	RMS-197	2/1R	P	P	P	/					
	RMS-201	2/1R	P	P	P	/					
	RMS-205	2/1R	P	P	P	/					
	RMS-207	2/1R	P	P	P	/					
4450	RMS-210A	1/1				/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
4460-211(a)	RMS-210	2/1R	P	F		/					
4470-211(b)	RMS-210A	2/1R	P	F		/					
4480-211(c)	RMS-209	2/1R	P	F		/					
4490	RMS-20383	1/1				/					
4491	RMS-203A	2/1R	F	F	NA	/					
450-	RMS-235A	3/3				/					
4500	RMS-498	2/1R	P	F		/					
4500-212(a)	RMS-494	2/1R	P	F		/					
4510	RMS-4948	2/1R	P	F		/					
4520-214(d)	RMS-493	1/1				/					
4530-	RMS-494A	3/3				/					
4540-215(a)	RMS-497	2/1R	F			/					
4550-213(b)	RMS-20520	3/3				/					
4560	RMS-495	1/1				/					
4560-216(a)	RMS-488	1/1				/					
4570	RMS-496	2/1R	P	F		/					
4570-216(b)	RMS-489	2/1R	P	F		/					
4580	RMS-487	2/1R				/					
	RMS-490	2/1R				/					
	RMS-491	2/1R	P	P	P	/					
460-37A(a)	RMS-117	3/3				/					
470-37A(a)	RMS-116	3/3				/					
480-39(a)	RMS-229	3/1R	P	P		/					
	RMS-231	3/1R	P	P		/					
490-39(c)	RMS-228	1/1				/					
	RMS-230	1/1				/					
50-32(d)	RMS-20001	2/1R	P	P		/					
500-	RMS-20016	2/1R	P	P		/					
510-	RMS-20017	1/1				/					
520-40(a)	RMS-214	3/1R	P	P		/					
	RMS-216	3/1R	P	P		/					
	RMS-219	3/1R	P	P		/					
	RMS-222	3/1R	P	P		/					
	RMS-225	3/1R	P	P		/					
	RMS-227	3/1R	P	P		/					
530	RMS-221	1/1				/					
530-40(b)	RMS-213	1/1				/					
	RMS-215	1/1				/					
	RMS-217	1/1				/					
	RMS-224	1/1				/					
	RMS-226	1/1				/					
540-	RMS-20018	3/1R	P	P		/					
550-	RMS-20019	3/1R	P	P		/					
560-	RMS-20020	1/1				/					
	RMS-20021	1/1				/					
570-	RMS-20022	2/1R	P	P		/					
580-41(a)	RMS-354	3/3				/					
581	RMS-358A	3/3				/					
590-41(b)	RMS-353	3/3				/					
60-32(a)	RMS-102	3/1R	F	F		/					

IDENTIFIERS		NASA				IOA RECOMMENDATIONS *				
NASA FMEA NUMBER	IOA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
600-41(c)	RMS-356	3/3				/					
	RMS-360	3/3				/					
610-41(d)	RMS-355	3/3				/					
	RMS-359	3/3				/					
620-41A(e)	RMS-20382	2/2				/					
630-	RMS-358	3/3				/					
640-	RMS-357	3/3				/					
650-42(a)	RMS-175	3/3				/					
660-42(b)	RMS-176	3/3				/					
670-	RMS-20023	3/3				/					
680-42A(a)	RMS-109	3/3				/					
690-42A(b)	RMS-108	3/3				/					
70-32(b)	RMS-20002	2/1R	P	P		/					
700-43(a)	RMS-111	3/3				/					
710-43(b)	RMS-110	3/3				/					
720-43(c)	RMS-110A	3/3				/					
	RMS-111A	3/3				/					
730-44(c)	RMS-110B	3/3				/					
740-44(d)	RMS-110C	3/3				/					
750-45(a)	RMS-112	3/3				/					
	RMS-113	3/3				/					
760-45(a)	RMS-20024	1/1				/					
770-45(a)	RMS-20025	1/1				/					
780-45A(c)	RMS-139	1/1				/					
790-45A(d)	RMS-143	1/1				/					
80-	RMS-101	2/1R	P	P		/					
800-45A(c)	RMS-134	1/1				/					
810-45A(a)	RMS-137	1/1				/					
820-	RMS-140	1/1				/					
830-	RMS-135	3/2R	P	P		/					
840-	RMS-144	1/1				/					
	RMS-166A	1/1				/					
850-	RMS-138	3/3				/					
860-46(a)	RMS-118	3/3				/					
870-46(b)	RMS-119	3/3				/					
880-47(a)	RMS-114	3/3				/					
	RMS-115	3/3				/					
890-47(b)	RMS-115A	3/3				/					
90-33(a)	RMS-300	2/1R	P	P		/					
900-48(a)	RMS-20369	3/3				/					
	RMS-20371	3/3				/					
910	RMS-20370	3/3				/					
	RMS-20372	3/3				/					
920-50(a)	RMS-20373	3/3				/					
930-50(a)	RMS-275	3/3				/					
940-50(a)	RMS-20374	3/3				/					
950-51(a)	RMS-120	3/3				/					
	RMS-121	3/3				/					
	RMS-122	3/3				/					
	RMS-123	3/3				/					

IDENTIFIERS		NASA				IDA RECOMMENDATIONS *				
NASA FMEA NUMBER	IDA ASSESSMENT NUMBER	CRIT HW/F	SCREENS A	B	C	CRIT HW/F	SCREENS A	B	C	OTHER (SEE LEGEND CODE)	ISSUE
950-51(a)	RMS-124	3/3				/					
	RMS-125	3/3				/					
	RMS-126	3/3				/					
	RMS-127	3/3				/					
	RMS-128	3/3				/					
	RMS-129	3/3				/					
	RMS-130	3/3				/					
	RMS-131	3/3				/					
960-52(a)	RMS-273	3/3				/					
	RMS-274A	3/3				/					
970-52(a)	RMS-212	3/3				/					
980-53(a)	RMS-279	2/2				/					
	RMS-283	2/2				/					
990-53(b)	RMS-278	3/3				/					
	RMS-282	3/3				/					
NONE	RMS-648	/				/					