INDEPENDENT ORBITER ASSESSMENT

ASSESSMENT
OF THE
REACTION CONTROL
SYSTEM
Vol. 2 of 5

26 FEBRUARY 1988
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-742
NASA FMEA #: 05-6KF-2088 -1
SUBSYSTEM: MDAC
MDAC ID: 742
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

**REMARKS:**

THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-743
NASA FMEA #: 05-6KF-2088 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 743
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-702
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-744
NASA FMEA #: 05-6KF-2088 -1

SUBSYSTEM: FRCS
MDAC ID: 744
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY
FLIGHT
HDW/FUNC

REduNDANCY SCREENS
A   B   C

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

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

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

AdeQUATE [ ]

INadeQUATE [ ]

REMARKS:

THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-703
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-745
NASA FMEA #: 05-6KF-2088 -1
SUBSYSTEM: FRCS
MDAC ID: 745
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS
FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-704
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-746
NASA FMEA #: 05-6KF-2089 -1
SUBSYSTEM: FRCS
MDAC ID: 746
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 2 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ D ] (ADD/DELETE)

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

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. HOWEVER, LOSS OF CAPABILITY TO MONITOR VALVE STATUS MAY LEAD TO FALSELY FAILING THE VALVE CLOSED POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-747
NASA FMEA #: 05-6KF-2089 -2

SUBSYSTEM: FRCS
MDAC ID: 747
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT DISTINCTION</td>
<td>A</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
</tr>
</tbody>
</table>

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-706
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-748
NASA FMEA #: 05-6KF-2087 -1
SUBSYSTEM: FRCS
MDAC ID: 748
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[  / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88
C-707
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-749
NASA FMEA #: 05-6KF-2087 -1

SUBSYSTEM: FRCS
MDAC ID: 749
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-708
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-750
NASA FMEA #: 05-6KF-2087 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 750
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-751
NASA FMEA #: 05-6KF-2087 -1
SUBSYSTEM: FRCS
MDAC ID: 751
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-752
NASA FMEA #: 05-6KF-2088 -1
SUBSYSTEM: FRCS
MDAC ID: 752
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
</tr>
</tbody>
</table>

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

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-711
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 1/29/88  
**NASA DATA:**  
**ASSESSMENT ID:** FRCS-753  
**NASA FMEA #:** 05-6KF-2088 -1  
**SUBSYSTEM:** FRCS  
**MDAC ID:** 753  
**ITEM:** RESISTOR, 5.1K 1/4W  
**LEAD ANALYST:** D. HARTMAN  

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

**COMPARE** | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

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

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

**REMARKS:**  
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.  

**ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88**  
(SHORT FAILURE MODE TO BE REMOVED).  

**REPORT DATE 2/26/88**  
C-712
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-754
NASA FMEA #: 05-6KF-2088 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 754
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]
(ADD/DELETE)

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-713
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-755
NASA FMEA #: 05-6KF-2088 -1
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 755
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC A B C</td>
<td>ITEM</td>
</tr>
<tr>
<td>NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-714
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRC5-756  
NASA FMEA #: 05-6KF-2088 -I

NASA DATA: 
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRC5  
MDAC ID: 756  
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[ 3 /3 ]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[ 3 /3 ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td></td>
<td>[ / ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

[ 3 /2R ]  [ P ]  [ P ]  [ P ]  [ ]  
(ADD/DELETE)

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

REMARKS:  
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88  
C-715
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-757
NASA FMEA #: 05-6KF-2088 -1

SUBSYSTEM: FRCS
MDAC ID: 757
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS
FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-716
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-758
NASA FMEA #: 05-6KF-2088 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 758
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY
FLIGHT HDW/FUNC

REDUNDANCY SCREENS
A B C

CIL
ITEM

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

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

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]
(ADD/DELETE)

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-759
NASA FMEA #: 05-6KF-2088-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 759
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS THE REMOVAL OF "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-718
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-760
NASA FMEA #: 05-6KF-2089 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 760
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ D ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA FMEA CONSIDERS MULTIPLE FAILURES. HOWEVER, LOSS OF CAPABILITY TO MONITOR VALVE STATUS MAY LEAD TO FALSELY FAILING THE VALVE CLOSED POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88
### Assessment Worksheet

**Assessment Date:** 1/29/88  
**Assessment ID:** FRCS-761  
**NASA FMEA #:** 05-6KF-2089 -2  
**Subsystem:** FRCS  
**MDAC ID:** 761  
**Item:** RESISTOR, 1.2K 2W  
**Lead Analyst:** D. Hartman

#### Assessment:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Compare</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

* **CIL Retention Rationale:** (If applicable)

Adequate [ ]  
Inadequate [ ]

**Remarks:**  
No Differences.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-762
NASA FMEA #: 05-6KF-2087 -1

SUBSYSTEM: FRCS
MDAC ID: 762
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-763
NASA FMEA #: 05-6KF-2087 -1
NASA DATA: BASELINE [ ] NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 763
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-722
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-764
NASA FMEA #: 05-6KF-2087 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 764
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-765
NASA FMEA #: 05-6KF-2091 -1
SUBSYSTEM: FRCS
MDAC ID: 765
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

CRITICALITY REDUNDANCY SCREENS CIL ITEM

<table>
<thead>
<tr>
<th></th>
<th>NASA</th>
<th>IOA</th>
<th>COMPARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>[ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>A</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>B</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>C</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-724
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-766
NASA FMEA #: 05-6KF-2088-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 766
ITEM: RESISTCR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3/2R ] [ P ] [ P ] [ P ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-725
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-767
NASA FMEA #: 05-6KF-2091 -1
SUBSYSTEM: FRCS
MDAC ID: 767
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-726
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-768
NASA FMEA #: 05-6KF-2088 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 768
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY
FLIGHT HDW/FUNC

REDUNDANCY SCREENS
A B C

CIL ITEM

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] *

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

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

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

(ADD/DELETE)

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-727
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-769
NASA FMEA #: 05-6KF-2091 -1
SUBSYSTEM: FRCS
MDAC ID: 769
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

|               | [ ]                | [ ] | [ ] | [ ] | [ ] | [ ] |

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-728
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-770
NASA FMEA #: 05-6KF-2088 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 770
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
<td>[ ] [ ] [ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
<td>[ ] [ ] [ ]</td>
</tr>
<tr>
<td>COMPARE [ ]</td>
<td>[ / ] [ ] [ ] [ ] [ ]</td>
<td>[ ] [ ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

(ADD/DELETE)

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE
POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD
TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION
OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-771
NASA FMEA #: 05-6KF-2091 -1
SUBSYSTEM: FRCS
MDAC ID: 771
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

CRITICALITY
REDUNDANCY SCREENS
ITEM
FLIGHT
HDW/FUNC A B C

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

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

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS
FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-730
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-772
NASA FMEA #: 05-6KF-2088 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 772
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ] *(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-731
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-773
NASA FMEA #: 05-6KF-2091 -1

NASA DATA:
BASELINE []
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 773
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-732
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-774
NASA FMEA #: FRCS-774
SUBSYSTEM: MDAC ID: 774
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.

REPORT DATE 2/26/88

C-733
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-775  
NASA FMEA #:  
SUBSYSTEM:  FRCS  
MDAC ID:  775  
ITEM:  RESISTOR, 5.1K 1/4W  
LEAD ANALYST:  
ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)  

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

* CIL RETENTION RATIONALE:  (If applicable)  

ADEQUATE [ ]  
INADEQUATE [ ]  

REMARKS:  
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY.  SEE ASSESSMENT IDs FRCS 11001X-11079X.
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-776 
NASA FMEA #: 

NASA DATA: 
BASELINE [ ] 
NEW [ ] 

SUBSYSTEM: FRCS 
MDAC ID: 776 
ITEM: RESISTOR, 5.1K 1/4W 

LEAD ANALYST: 

ASSESSMENT: 

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA) 

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

* CIL RETENTION RATIONALE: (If applicable) 

ADEQUATE [ ] 
INADEQUATE [ ] 

REMARKS: 
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-777
NASA FMEA #:
NASA DATA:
BASELINE [ ]
NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 777
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-736
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-778 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 778
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-737
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-779
NASA FMEA #: FRCS
SUBSYSTEM: FRCS
MDAC ID: 779
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-738
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-780  
NASA FMEA #:  
SUBSYSTEM:  FRCS  
MDAC ID:  780  
ITEM:  RESISTOR, 5.1K 1/4W  
LEAD ANALYST:  
ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ N / N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 / 3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N / N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA: BASELINE [ ]
ASSESSMENT ID: FRCS-781 NEW [ ]
NASA FMEA #: 
SUBSYSTEM: FRCS NASA [ ]
MDAC ID: 781 [ ]
ITEM: RESISTOR, 5.1K 1/4W [
LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 / 3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N / N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-740
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:NASA DATA:
ASSESSMENT ID: NASA FMEA #:
FRCS-782
FRCS-782
SUBSYSTEM: MDAC ID:
FRCS 782
ITEM: RESISTOR, 5.1K 1/4W
ITEM:

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ / ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE [ N /N ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-741
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-783
NASA FMEA #: 
SUBSYSTEM: FRCS
MDAC ID: 783
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-742
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-784  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM:  FRCS  
MDAC ID:  784  
ITEM:  RESISTOR, 5.1K 1/4W  

LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 / 3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N / N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)  

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

(ADD/DELETE)  

* CIL RETENTION RATIONALE: (If applicable)  

ADEQUATE [ ]  
INADEQUATE [ ]  

REMARKS:  
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88  C-743
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-785 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 785
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

CIL ITEM

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-786 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 786
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST:

ASSESSMENT:

<p>| CRITICALITY | REDUNDANCY SCREENS | CIL |</p>
<table>
<thead>
<tr>
<th>HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [    ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [    ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADVERSE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  NASA DATA:
ASSESSMENT ID: FRCS-787 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS 
MDAC ID: 787
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSessment Date: 
Assessment ID: FRCS-788 
NASA FMEA #: NASA DATA: 
BASELINE [ ] 
NEW [ ] 

Subsystem: FRCS 
MDAC ID: 788 
Item: RESISTOR, 1.2K 2W

Lead Analyst: 
Assessment: 

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

* CIL retention rationale: (If applicable) 
Adequate [ ] 
Inadequate [ ]

Remarks: 
Forward manifold isolation valve #5 re-analyzed by IOA due to change in circuitry. See Assessment IDs FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-789 NASA FMEA #:
MDAC ID: 789 NASA DATA:
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-748
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:            NASA DATA:
ASSESSMENT ID:  FRCS-790     BASELINE [ ]
NASA FMEA #:                NEW [ ]
SUBSYSTEM:                  FRCS
MDAC ID:                    790
ITEM:                      MANIFOLD 1, OX & FU ISOL VLV SWITCH
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:
MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-
ANALYZED BY IOA.  SEE ASSESSMENT IDs FRCS 11095X-11099X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 

ASSESSMENT ID: FRCS-791

NASA FMEA #: 

SUBSYSTEM: FRCS

MDAC ID: 791

ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11095X-11099X.

REPORT DATE 2/26/88 C-750
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-792 BASELINE [ ] NEW [ ]
NASA FMEA #: NASA DATA:

SUBSYSTEM: FRCS
MDAC ID: 792
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11095X-11099X.

REPORT DATE 2/26/88 C-751
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ] NASA DATA: [ ]
ASSESSMENT ID: FRCS-793 BASELINE [ ]
NASA FMEA #: [ ] NEW [ ]

SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 793 BASELINE [ ]
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH OPEN
CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] /</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11095X-11099X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-794
NASA FMEA #: 
NASA DATA: 
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 794
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH OPEN
CONTACTS 1, 2

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11095X-11099X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-795 NASA FMEA #:
MDAC ID: 795 NEW [ ]
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH GPC CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>FLIGHT</td>
<td>A</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11095X-11099X.

REPORT DATE 2/26/88 C-754
# APPENDIX C
## ASSESSMENT WORKSHEET

**ASSESSMENT DATE:**

**ASSESSMENT ID:** FRCS-796

**NASA FMEA #:**

**NASA DATA:**

**BASELINE [ ]**

**NEW [ ]**

**SUBSYSTEM:** FRCS

**MDAC ID:** 796

**ITEM:** MANIFOLD 1, OX & FU ISOL VLV SWITCH GPC CONTACTS 3, 4

**LEAD ANALYST:**

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NASA</th>
<th>/</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>3 /3</td>
</tr>
<tr>
<td>COMPARE</td>
<td>N /N</td>
</tr>
</tbody>
</table>

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

|   / |   |   |   |

**(ADD/DELETE)**

* CIL RETENTION RATIONALE: (If applicable)

<table>
<thead>
<tr>
<th>ADEQUATE</th>
<th>INADEQUATE</th>
</tr>
</thead>
</table>

**REMARKS:**

MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11095X-11099X.

**REPORT DATE 2/26/88**

C-755
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-797 NASA FMEA #:
MDAC ID: 797
SUBSYSTEM: FRCS
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH CLOSE
CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS A</th>
<th>B</th>
<th>C</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11095X-11099X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-798  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM:  FRCS  
MDAC ID:  798  
ITEM:  MANIFOLD 1, OX & FU ISOL VLV SWITCH CLOSE  
CONTACTS 5, 6  

LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  
(If different from NASA)  

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

(ADD/DELETE)  

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

REMARKS:  
MANIFOLD 1, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 30 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11095X-11099X.

REPORT DATE 2/26/88  C-757
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-799
NASA FMEA #: NASA DATA:
SUBSYSTEM: FRCS BASELINE [
MDAC ID: 799 NEW [
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH
LEAD ANALYST:
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

| NASA | [ / ] | [ ] | [ ] |
| IOA  | [ 3 /3] | [ ] | [ ] |
| COMPARE | [ N /N ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDS 11100X-11104X.

REPORT DATE 2/26/88 C-758
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ] NASA DATA:
ASSESSMENT ID: FRCS-800 BASELINE [ ]
NASA FMEA #: [ ] NEW [ ]
SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 800 BASELINE [ ]
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH NEW [ ]

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A B C</td>
<td>ITEM</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11100X-11104X.

REPORT DATE 2/26/88 C-759
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-801 BASELINE [ ]
MDAC ID: 801 NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS ASSESSMENT ID:
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ ] [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDS 11100X-11104X.

REPORT DATE 2/26/88 C-760
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-802
NASA FMEA #:

SUBSYSTEM: FRCS
MDAC ID: 802
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH OPEN
CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDS 11100X-11104X.

REPORT DATE 2/26/88 C-761
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [Date]
ASSESSMENT ID: FRCS-803
NASA FMEA #: [FRCS]

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 803
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH OPEN
CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11100X-11104X.

REPORT DATE 2/26/88 C-762
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-804  
NASA FMEA #:  

NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM:  FRCS  
MDAC ID:  804  
ITEM:  MANIFOLD 2, OX & FU ISOL VLV SWITCH GPC CONTACTS 3, 4  

LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:  
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11100X-11104X.

REPORT DATE 2/26/88  
C-763
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-805 BASeline [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 805
ITEM: MANIFOLD 2, OX & FUEL ISOL VLV SWITCH GPC CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>3 /3</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>N /N</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDS 11100X-11104X.

REPORT DATE 2/26/88 C-764
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-806
NASA FMEA #: [ ]

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 806
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH CLOSE
CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ] / [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDs 11100X-11104X.

REPORT DATE 2/26/88  C-765
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-807 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS NASA [ ]
MDAC ID: 807 IOA [ 3 /2R ]
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH CLOSE
CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] * [ ] [ ]

IOA [ 3 /2R ] [ P ] [ F ] [ P ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
MANIFOLD 2, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 31 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDS 11100X-11104X.

REPORT DATE 2/26/88 C-766
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-808
NASA FMEA #: [ ]
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 808
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH

LEAD ANALYST: [ ]
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11105X-11109X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-809
NASA FMEA #: 
NASA DATA: 
BASELINE [ ] 
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 809
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ]
IOA [ 3 /2R ]
COMPARE [ N /N ]

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11105X-11109X.

REPORT DATE 2/26/88 C-768
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-810  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]  
SUBSYSTEM: FRCS  
MDAC ID: 810  
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH  
LEAD ANALYST:  
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:  
MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11105X-11109X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-811  
NASA FMEA #:  
SUBSYSTEM: FRCS  
MDAC ID: 811  
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH OPEN  
CONTACTS 1, 2  
LEAD ANALYST:  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:  
MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11105X-11109X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ] NASA DATA: [ ]
ASSESSMENT ID: FRCS-812 BASELINE [ ]
NASA FMEA #: [ ] NEW [ ]

SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 812 BASELINE [ ]
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH OPEN
CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

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

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

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

REMARKS:
MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED
BY IOA. SEE ASSESSMENT IDS FRCS 11105X-11109X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-813 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 813
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH GPC CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11105X-11109X.

REPORT DATE 2/26/88 C-772
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-814
NASA FMEA #: [ ]

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 814
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH GPC CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11105X-11109X.

REPORT DATE 2/26/88 C-773
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-815 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 815 BASELINE [ ]
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH CLOSE NEW [ ]
CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED
BY IOA. SEE ASSESSMENT IDs FRCS 11105X-11109X.

REPORT DATE 2/26/88 C-774
APPENDIX C
ASSESSMENT WORKSHEET

ASSessment DATE: NASA DATA:
ASsessment ID: FRCS-816 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS NASA IOA 
MDAC ID: 816 [3/2R]
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH CLOSE
CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A     B     C</td>
<td>ITEM</td>
</tr>
<tr>
<td>NASA [ ] [ ] [ ] [ ] [ ] [ ] [ ] *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA [3/2R] [P] [F] [P] [P] [X]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE [N/N] [N] [N] [N] [N] [N]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

REMARKS: MANIFOLD 3, OXIDIZER AND FUEL ISOLATION VALVE SWITCH RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11105X-11109X.

REPORT DATE 2/26/88 C-775
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-817 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 817 BASELINE [ ]
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH NEW [ ]

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11110X-11114X.

REPORT DATE 2/26/88 C-776
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-818
NASA FMEA #: 

SUBSYSTEM: FRCS
MDAC ID: 818
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td>3 /2R</td>
<td>P</td>
</tr>
<tr>
<td>COMPARE</td>
<td>N/N</td>
<td>N</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMACKS:
MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11110X-11114X.

REPORT DATE 2/26/88 C-777
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-819 
NASA FMEA #: 
NASA DATA: 
BASELINE [ ]  
NEW [ ]

SUBSYSTEM: FRCS 
MDAC ID: 819 
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)  

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

REMARKS:
MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11110X-11114X.

REPORT DATE 2/26/88 C-778
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-820 
NASA FMEA #: 

NASA DATA: 
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 820
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH OPEN
CONTACTS 1, 2

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11110X-11114X.
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:**

**NASA DATA:**

**ASSESSMENT ID:** FRCS-821

**NASA FMEA #:**

**SUBSYSTEM:** FRCS

**MDAC ID:** 821

**ITEM:** MANIFOLD 4, OX & FU ISOL VLV SWITCH OPEN CONTACTS 1, 2

**LEAD ANALYST:**

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 / 3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11110X-11114X.

REPORT DATE 2/26/88  C-780
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: ___________________________
ASSESSMENT ID: FRCS-822
NASA FMEA #: ___________________________

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 822
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH GPC CONTACTS 3, 4

LEAD ANALYST: ___________________________

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11110X-11114X.

REPORT DATE 2/26/88 C-781
APPENDIX C
ASSESSMENT WORKSHEET

<table>
<thead>
<tr>
<th>ASSESSMENT DATE:</th>
<th>NASA DATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BASELINE [ ]</td>
</tr>
<tr>
<td>ASSESSMENT ID:</td>
<td>FRCS-823</td>
</tr>
<tr>
<td>NASA FMEA #:</td>
<td>NEW [ ]</td>
</tr>
<tr>
<td>SUBSYSTEM:</td>
<td>FRCS</td>
</tr>
<tr>
<td>MDAC ID:</td>
<td>823</td>
</tr>
<tr>
<td>ITEM:</td>
<td>MANIFOLD 4, OX &amp; FU ISOL VLV SWITCH GPC CONTACTS 3, 4</td>
</tr>
<tr>
<td>LEAD ANALYST:</td>
<td></td>
</tr>
<tr>
<td>ASSESSMENT:</td>
<td></td>
</tr>
<tr>
<td>CRITICALLY REDUNDANCY SCREENS CIL ITEM</td>
<td></td>
</tr>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ] [ ] [ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ] [ ] [ ]</td>
</tr>
<tr>
<td>RECOMMENDATIONS:</td>
<td>(If different from NASA)</td>
</tr>
<tr>
<td></td>
<td>[ / ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>* CIL RETENTION RATIONALE: (If applicable)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADEQUATE [ ]</td>
</tr>
<tr>
<td></td>
<td>INADEQUATE [ ]</td>
</tr>
<tr>
<td>REMARKS:</td>
<td>MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11110X-11114X.</td>
</tr>
</tbody>
</table>

REPORT DATE 2/26/88 C-782
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-824
NASA FMEA #:
SUBSYSTEM: FRCS
MDAC ID: 824
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH CLOSE
CONTACTS 5, 6
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11110X-11114X.

REPORT DATE 2/26/88 C-783
APPENDIX C

ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-825
NASA FMEA #: NASA DATA:
NASA FMEA #: FRCS
MDAC ID: 825
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH CLOSE
CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
MANIFOLD 4, OXIDIZER AND FUEL ISOLATION VALVE SWITCH 33 RE-
ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11110X-11114X.

REPORT DATE 2/26/88 C-784
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ] NASA DATA: [ ]
ASSESSMENT ID: FRCS-826 BASELINE [ ]
NASA FMEA #: [ ] NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 826
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 / 3]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N / N]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-785
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-827 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 827
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE [N /N]</td>
<td>[N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID:  FRCS-828
NASA FMEA #: 
SUBSYSTEM: FRCS
MDAC ID: 828
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.

REPORT DATE 2/26/88  C-787
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-829 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS MDAC ID: 829
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH OPEN CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3/3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N/N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-788
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-830 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 830
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITC OPEN
CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>ITEM</td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

| NASA | / | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| IOA  | 3/3 | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| COMPARE | N/N | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-789
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-831
NASA FMEA #: 
NASA DATA: 
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 831
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH GPC CONTACTS 3, 4

LEAD ANALYST: 

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-832  
NASA FMEA #:  

NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM:  FRCS  
MDAC ID:  832  
ITEM:  MANIFOLD 5, OX & FU ISOL VLV SWITCH GPC CONTACTS 3, 4  

LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)  

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

* CIL RETENTION RATIONALE: (If applicable)  

ADEQUATE [ ]  
INADEQUATE [ ]  

REMARKS:  
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY.  SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88  C-791
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-833
NASA FMEA #:

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 833
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH CLOSE
CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-834 
NASA FMEA #: 

NASA DATA: 
BASELINE [ ] 
NEW [ ]

SUBSYSTEM: FRCS 
MDAC ID: 834 
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH CLOSE CONTACTS 5, 6 
LEAD ANALYST: 

ASSESSMENT: 

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ / ]</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ] *</td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ F ] [ P ] [ X ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ] [ N ] [ N ] [ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-793
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-835
NASA FMEA #: 
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 835
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH OPEN

CONTACTS 7, 8

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-794
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-836 
NASA FMEA #: 

NASA DATA: 
BASELINE [ ] 
NEW [ ] 

SUBSYSTEM: FRCS 
MDAC ID: 836 
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH OPEN 
CONTACTS 7, 8 

LEAD ANALYST: 

ASSESSMENT: 

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA) 

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

* CIL RETENTION RATIONALE: (If applicable) 

ADEQUATE [ ] 
INADEQUATE [ ] 

REMARKS: 
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-837  
NASA FMEA #:  

NASA DATA:  
BASELINE [ ]  
NEW [ ]

SUBSYSTEM:  FRCS  
MDAC ID:  837  
ITEM:  MANIFOLD 5, OX & FU ISOL VLV SWITCH GPC CONTACTS 9, 10

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3/2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N / N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88  
C-796
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-838
NASA FMEA #: [ ]

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 838
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH GPC CONTACTS 9, 10

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ F ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-797
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-839  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]

SUBSYSTEM: FRCS  
MDAC ID: 839  
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH CLOSE

CONTACTS 11, 12

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
<td>[ ] [ ] [ ]</td>
</tr>
<tr>
<td>IOA [ ] / [ ] / 3 / 3</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
<td>[ ] [ ] [ ]</td>
</tr>
<tr>
<td>COMPARE [ N / N / N ]</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
<td>[ ] [ ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.

REPORT DATE 2/26/88

C-798
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-840  
NASA FMEA #:  

NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM: FRCS  
MDAC ID: 840  
ITEM: MANIFOLD 5, OX & FU ISOL VALVE SWITCH CLOSE  
CONTACTS 11, 12  

LEAD ANALYST:  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ F ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)  

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

(ADD/DELETE)  

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

REMARKS:  
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDS FRCS 11001X-11079X.  

REPORT DATE 2/26/88  
C-799
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-841
NASA FMEA #: 03-2F-103350 -2

SUBSYSTEM: FRCS
MDAC ID: 841
ITEM: FU TK ULLAGE PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-842
NASA FMEA #: 03-2F-103350 -2

ASSESSMENT ID: FRCS-842
NASA FMEA #: 03-2F-103350 -2

SUBSYSTEM: FRCS
MDAC ID: 842
ITEM: FU TK ULLAGE PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-843
NASA FMEA #: 03-2F-103350 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 843
ITEM: FU TK OUT PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-844
NASA FMEA #: 03-2F-103350 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 844
ITEM: FU TK OUT PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-845
NASA FMEA #: 03-2F-103350 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 845
ITEM: OX TK ULLAGE PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<p>| CRITICALITY | REDUNDANCY SCREENS | CIL ITEM |</p>
<table>
<thead>
<tr>
<th>FLIGHT HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

* CIL RETENTION RATIONALE: (If applicable)

<table>
<thead>
<tr>
<th></th>
<th>ADEQUATE</th>
<th>INADEQUATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-804
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-846
NASA FMEA #: 03-2F-103350 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 846
ITEM: OX TK ULLAGE PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-847
NASA FMEA #: 03-2F-103350-2

SUBSYSTEM: FRCS
MDAC ID: 847
ITEM: OX TK OUT PRESS SENSOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM</td>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
</tbody>
</table>

| NASA       | [ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ] |
| IOA        | [ 3 /3 ]  | [ ]   | [ ]   | [ ]   | [ ] |
| COMPARE    | [ /N ]    | [ N ] | [ N ] | [ N ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-806
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-848
NASA FMEA #: 03-2F-103350 -2

SUBSYSTEM: FRCS
MDAC ID: 848
ITEM: OX TK OUT PRESS SENSOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[3 /2R]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3 /3]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-849
NASA FMEA #: 03-2F-103370 -1
SUBSYSTEM: FRCS
MDAC ID: 849
ITEM: FU PRESS LINE (NEAR THERMOSTAT) TEMP SENSOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [3/2R] [P] [P] [P] [ ] [ ] *
IOA [3/3] [ ] [ ] [ ] [ ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-808
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-850  
**NASA FMEA #:** 03-2F-103370 -1  
**NASA DATA:**  
BASELINE [ ]  
NEW [ X ]

**SUBSYSTEM:** FRCS  
**MDAC ID:** 850  
**ITEM:** FU PRESS LINE (NEAR THERMOSTAT) TEMP SENSOR

**LEAD ANALYST:** D. HARTMAN

#### ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

#### REMARKS:

IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-851
NASA FMEA #: 03-2F-103370 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 851
ITEM: FU FILL LINE TEMP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-810
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-852
NASA FMEA #: 03-2F-103370 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 852
ITEM: FU FILL LINE TEMP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /3 ] [ ] [ ] [ ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-811
ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-853
NASA FMEA #: 03-2F-103370 -1
SUBSYSTEM: FRCS
MDAC ID: 853
ITEM: L FUEL PRESS LINE BACKUP TEMP SENSOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-854
NASA FMEA #: 03-2F-103370 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 854
ITEM: L FUEL PRESS LINE BACKUP TEMP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-855
NASA FMEA #: 03-2F-103370 -1

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 855
ITEM: OX FILL LINE TEMP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>3 /2R</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>3 /3</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>/N</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-856
NASA FMEA #: 03-2F-103370 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 856
ITEM: OX FILL LINE TEMP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
ASSESSMENT DATE: 1/29/88
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 857
ITEM: OX PRESS LINE (NEAR THERMOSTAT) TEMP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<p>| CRITICALITY | REDUNDANCY SCREENS | CIL ITEM |</p>
<table>
<thead>
<tr>
<th>FLIGHT HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88  C-816
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-858
NASA FMEA #: 03-2F-103370 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 858
ITEM: OX PRESS LINE (NEAR THERMOSTAT) TEMP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-817
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-859
NASA FMEA #: 03-2F-103370 -1

SUBSYSTEM: FRCS
MDAC ID: 859
ITEM: OX PRESS LINE TEMP BACKUP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]
Inadequate [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88  C-818
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-860
NASA FMEA #: 03-2F-103370 -1
SUBSYSTEM: FRCS
MDAC ID: 860
ITEM: OX PRESS LINE TEMP BACKUP SENSOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY

<table>
<thead>
<tr>
<th>FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /3 ] [ ] [ ] [ ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-819
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-861
NASA FMEA #: 03-2F-103370 -1
SUBSYSTEM: FRCS
MDAC ID: 861
ITEM: OX TK TEMP-1 TEMP SENSOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FLIGHT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HDW/FUNC</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA. NOTE: IOA SHOULD HAVE ANALYZED FUEL TANK TEMPERATURE SENSOR ALSO CONTAINED IN THIS FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-862
NASA FMEA #: 03-2F-103370 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 862
ITEM: OX TK TEMP-1 TEMP SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
IOA AGREES WITH NASA FMEA. NOTE: IOA SHOULD HAVE ANALYZED FUEL TANK TEMPERATURE SENSOR ALSO CONTAINED IN THIS FMEA.

REPORT DATE 2/26/88 C-821
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-863
NASA FMEA #: 03-2F-103350 -3
NASA DATA:

BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 863
ITEM: FU MANIF PRESS-I PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-822
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-864
NASA FMEA #: 03-2F-103350 -3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 864
ITEM: FU MANIF PRESS-1 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-823
APPENDIX C
ASSessment Worksheet

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-865
NASA FMEA #: 03-2F-103350 -3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 865
ITEM: OX MANIF PRESS-1 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-824
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-866
NASA FMEA #: 03-2F-103350 -3
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 866
ITEM: OX MANIF PRESS-1 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-825
# APPENDIX C
## ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-867  
**NASA FMEA #:** 03-2F-103350 -3  
**BASELINE** [ ]  
**NEW** [ X ]

**SUBSYSTEM:** FRCS  
**MDAC ID:** 867  
**ITEM:** FU MANIF PRESS-2 PRESS SENSOR  
**LEAD ANALYST:** D. HARTMAN  

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

## ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

IOA AGREES WITH NASA FMEA.

**REPORT DATE 2/26/88**  
C-826
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-868
NASA FMEA #: 03-2F-103350 -3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 868
ITEM: FU MANIF PRESS-2 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-827
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-869
NASA FMEA #: 03-2F-103350 -3

SUBSYSTEM: FRCS
MDAC ID: 869
ITEM: OX MANIF PRESS-2 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /2R ]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-828
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-870
NASA FMEA #: 03-2F-103350 -3
SUBSYSTEM: FRCS
MDAC ID: 870
ITEM: OX MANIF PRESS-2 PRESS SENSOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-829
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-871
NASA FMEA #: 03-2F-103350 -3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 871
ITEM: FU MANIF PRESS-3 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>CIL ITEM</td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P</td>
<td>[ P</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N</td>
<td>[ N</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-830
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-872
NASA FMEA #: 03-2F-103350 -3

SUBSYSTEM: FRCS
MDAC ID: 872
ITEM: FU MANIF PRESS-3 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>NASA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ] [ ] *</td>
</tr>
<tr>
<td></td>
<td>IOA [ 3 /3 ]</td>
<td>[ ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ] [ N ] [ N ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-873
NASA FMEA #: 03-2F-103350 -3
SUBSYSTEM: FRCS
MDAC ID: 873
ITEM: OX MANIF PRESS-3 PRESS SENSOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-832
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-874
NASA FMEA #: 03-2F-103350 -3

SUBSYSTEM: FRCS
MDAC ID: 874
ITEM: OX MANIF PRESS-3 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-833
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-875
BASELINE [ ]
NASA FMEA #: 03-2F-103350 -3
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 875
ITEM: FU MANIF PRESS-4 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-834
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-876
NASA FMEA #: 03-2F-103350 -3

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 876
ITEM: FU MANIF PRESS-4 PRESS SENSOR

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /2R]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

| ADEQUATE [ ] |
| INADEQUATE [ ] |

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-835
<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88                   NASA DATA:
ASSESSMENT ID:  FRCS-878                        BASELINE [   ]
NASA FMEA #:   03-2F-103350 -3                  NEW [ X ]

SUBSYSTEM:   FRCS
MDAC ID:  878
ITEM:   OX MANIF PRESS-4 PRESS SENSOR

LEAD ANALYST:   D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88

C-837
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-879
NASA FMEA #: 05-6KF-2153 -1
NASA DATA: BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 879
ITEM: OX & FU TK ISOL VLV 1/2 & 3/4/5 SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ] *(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-879A
NASA FMEA #: 05-6KF-2154 -1
NASA DATA:
BASELINE [  ]
NEW [  X  ]

SUBSYSTEM: FRCS
MDAC ID: 879
ITEM: OX & FU TK ISOL VLV 1/2 & 3/4/5 SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ]
(ADD/DELETE)

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88    C-839
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-880
NASA FMEA #: 05-6KF-2155 -1
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 880
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

NASA [ 2 /1R ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 3 /1R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ N / ] [ ] [ N ] [ ] [ N ]

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ D ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. HOWEVER, LOSS OF ACCURATE
INDICATION OF VALVE STATUS WITH SWITCH TALKBACK COUPLED WITH THE
LOSS OF REDUNDANCY (MDM DISCRETES) MAY LEAD TO FALSELY FAILING
THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS
DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS
DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE
ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-840
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-880A
NASA FMEA #: 05-6KF-2155 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 880
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ] (ADD/DELETE)

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88
C-841
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASESSMENT ID: FRCS-881
BASELINE [ ]
NASA FMEA #: 05-6KF-2155 -1
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 881
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH TALKBACK
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ D ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. HOWEVER, LOSS OF ACCURATE INDICATION OF VALVE STATUS WITH SWITCH TALKBACK COUPLED WITH THE LOSS OF REDUNDANCY (MDM DISCRETES) MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-881A
NASA FMEA #: 05-6KF-2155 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 881
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA  [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA  [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-843
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-882
NASA FMEA #: 05-6KF-2155 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 882
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 2 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ D ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. HOWEVER, LOSS OF ACCURATE INDICATION OF VALVE STATUS WITH SWITCH TALKBACK COUPLED WITH THE LOSS OF REDUNDANCY (MDM DISCRETES) MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-844
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-882A
NASA FMEA #: 05-6KF-2155 -2

SUBSYSTEM: FRCS
MDAC ID: 882
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ] (ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88  C-845
APPENDIX C
ASSESSMENT WORKSHEET

ASSessment Date: 1/29/88
ASSESSMENT ID: FRCS-883
NASA FMEA #: 05-6KF-2155 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 883
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [2 /1R]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [3 /1R]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[3 /2R ] [ P ] [ P ] [ P ] [ D ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]
Inadequate [ ]

REMARKS:

NASA FMEA CONSIDERS MULTIPLE FAILURES. HOWEVER, LOSS OF ACCURATE INDICATION OF VALVE STATUS WITH SWITCH TALKBACK COUPLED WITH THE LOSS OF REDUNDANCY (MDM DISCRETES) MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-883A
NASA FMEA #: 05-6KF-2155-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 883
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH TALKBACK

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ]
(ADD/DELETE)

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-847
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-884
NASA FMEA #:
SUBSYSTEM: FRCS
MDAC ID: 884
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH TALKBACK

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA | [ / ] | [ ] | [ ] | [ ] | [ ] | *
| IOA | [ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ] |
| COMPARE | [ N /N ] | [ N ] | [ N ] | [ N ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD ISOLATION VALVE #5 RE-ANALYZED BY IOA DUE TO CHANGE IN CIRCUITRY. SEE ASSESSMENT IDs FRCS 11001X-11079X.

REPORT DATE 2/26/88 C-848
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-885
NASA FMEA #: 05-6KF-2179 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 885
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 1. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 3. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALLY FOR THE FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-886  
NASA FMEA #: 05-6KF-2179-2

SUBSYSTEM: FRCS  
MDAC ID: 886  
ITEM: CONTROLLER, REMOTE POWER  
LEAD ANALYST: D. HARTMAN

ASSessment:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]  
Inadequate [ ]

REMARKS: NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88  
C-850
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-887
NASA FMEA #: 05-6KF-2180 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 887
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3/1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2/2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N/N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 1. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 3. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-851
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-888
NASA FMEA #: 05-6KF-2180 -2
NASA DATA:
BASELINE [   ]
NEW [  X  ]

SUBSYSTEM: FRCS
MDAC ID: 888
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-852
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-889
NASA FMEA #: 05-6KF-2179 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 889
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ X ]</td>
<td></td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ X ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

| ADEQUATE [ ] |
| INADEQUATE [ ] |

REMARKS:
LOSE JETS ON MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA:
ASSESSMENT ID: FRCS-890 BASELINE [ ]
NASA FMEA #: 05-6KF-2179 -2 NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 890
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-854
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-891
NASA FMEA #: 05-6KF-2180 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 891
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
LOSE JETS ON MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-855
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-892
NASA FMEA #: 05-6KF-2180 -2
NASA DATA: BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 892
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]
Inadequate [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-856
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-893
NASA FMEA #: 05-6KF-2179 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 893
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-857
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-894  NASA DATA:
NASA FMEA #: 05-6KF-2179 -2  BASELINE [ ]
SUBSYSTEM: FRCS  NEW [ X ]
MDAC ID: 894
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-895
NASA FMEA #: 05-6KF-2180 -1

NASA DATA:
BASELINE [  ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 895
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-896
NASA FMEA #: 05-6KF-2180 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 896
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NASA [ 3 /3 ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IOA [ 3 /3 ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-860
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-897
NASA FMEA #: 05-6KF-2181 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 897
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-898
NASA FMEA #: 05-6KF-2181-2
SUBSYSTEM: FRCS
MDAC ID: 898
ITEM: CONTROLLER, REMOTE POWER
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

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

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ X ]*
IOA [ 2 /2 ] [ ] [ ] [ ] [ ] [ X ]
COMPARE [ N /N ] [ ] [ ] [ ] [ ] [ N ]

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-862
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-899
NASA FMEA #: 05-6KF-2182 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 899
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-900
NASA FMEA #: 05-6KF-2182-2
SUBSYSTEM: FRCS
MDAC ID: 900
ITEM: CONTROLLER, REMOTE POWER
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

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

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED (MULTIPLE FAILURES) WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-864
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-901
NASA FMEA #: 05-6KF-2179 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 901
ITEM: CONTROLLER, REMOTE POWER
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ D ]
(ADD/DELETE)

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

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-865
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-902
NASA FMEA #: 05-6KF-2180 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 902
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 4. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 2. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-866
APPENDIX C

ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-903
NASA FMEA #: 05-6KF-2180 -2

SUBSYSTEM: FRCS
MDAC ID: 903
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[3/3]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3/3]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-867
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-904
NASA FMEA #: 05-6KF-2179 -I
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 904
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLIGHT</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HDW/FUNC</td>
<td>[ ]</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
LOSE JETS ON MANIFOLD 4. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 2. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-868
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-905
NASA FMEA #: 05-6KF-2183 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 905
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>PEDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C  
ASSESSMENT WORKSHEET  

ASSESSMENT DATE:  1/29/88  
ASSESSMENT ID:  FRCS-906  
NASA FMEA #:  05-6KF-2183 -2  

NASA DATA:  
BASELINE [ ]  
NEW [ X ]  

SUBSYSTEM:  FRCS  
MDAC ID:  906  
ITEM:  CONTROLLER, REMOTE POWER  

LEAD ANALYST: D. HARTMAN  

ASSESSMENT:  CRITICALITY REDUNDANCY SCREENS  

<table>
<thead>
<tr>
<th></th>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)  

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

* CIL RETENTION RATIONALE: (If applicable)  

ADEQUATE [ ]  
INADEQUATE [ ]  

REMARKS:  
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.  

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-907
NASA FMEA #: 05-6KF-2183 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 907
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSessment DATE: 1/29/88
ASSessment ID: FRCS-908
NASA FMEA #: 05-6KF-2183 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 908
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 3 /3 ] [ ] [ ] [ ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ N ]

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-872
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-909
NASA FMEA #: 05-6KF-2260 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 909
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
LOSE JETS ON MANIFOLD 1. REDUNDANCY PROVIDED BY JETS ON MANIFOLD
3. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-910
NASA FMEA #: 05-6KF-2260 -2
SUBSYSTEM: FRCS
MDAC ID: 910
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<p>| CRITICALLY | REDUNDANCY SCREENS | CIL |</p>
<table>
<thead>
<tr>
<th>FLIGHT HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
<td>[ ] *</td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ] [ ] [ ]</td>
<td>[ ]</td>
<td></td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-874
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-911
NASA FMEA #: 05-6KF-2259A-1

SUBSYSTEM: FRCS
MDAC ID: 911
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88  C-875
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-912
NASA FMEA #: 05-6KF-2259A-2
SUBSYSTEM: FRCS
MDAC ID: 912
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-876
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-913
NASA FMEA #: 05-6KF-2259 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 913
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 1. REDUNDANCY PROVIDED BY MANIFOLD 3 JETS.
JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-877
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-914
NASA FMEA #: 05-6KF-2259 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 914
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A B C</td>
<td>ITEM</td>
</tr>
<tr>
<td>NASA</td>
<td>3 /3</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ]*</td>
</tr>
<tr>
<td>IOA</td>
<td>3 /3</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>/</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-915
NASA FMEA #: 05-6KF-2260 -1

SUBSYSTEM: FRCS
MDAC ID: 915
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.
**APPENDIX C**

**ASSESSMENT WORKSHEET**

ASSESSMENT DATE: 1/29/88

ASSESSMENT ID: FRCS-916

NASA FMEA #: 05-6KF-2260 -2

SUBSYSTEM: FRCS

MDAC ID: 916

ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

NO DIFFERENCES.

REPORT DATE 2/26/88 C-880
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-917
NASA FMEA #: 05-6KF-2259A-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 917
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ 3/1R ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 3/2R ] [ P ] [ F ] [ P ] [ X ]
COMPARE [ /N ] [ ] [ ] [ ] [ ]

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-918
NASA FMEA #: 05-6KF-2259A-2

SUBSYSTEM: FRCS
MDAC ID: 918
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

LEAD ANALYST: D. HARTMAN
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[3/3]</td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td>[3/3]</td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-919
NASA FMEA #: 05-6KF-2259 -1

SUBSYSTEM: FRCS
MDAC ID: 919
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY SCREENS</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ] [ F ] [ P ]</td>
<td>[ X ] *</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ F ] [ P ]</td>
<td>[ X ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

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

REMARKS:
LOSE JETS ON MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-883
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-920
NASA FMEA #: 05-6KF-2259 -2

NASA DATA: BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 920
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88  C-884
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-921
NASA FMEA #: 05-6KF-2260 -1
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 921
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-885
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 1/29/88  
**NASA DATA:**

**ASSESSMENT ID:** FRCS-922  
**NASA FMEA #:** 05-6KF-2260 -2  

**SUBSYSTEM:** FRCS  
**MDAC ID:** 922  
**ITEM:** DIODE

**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA [ 3 /3 ]        | [ ] | [ ] | [ ] | [ ] | [ ] *
| IOA [ 3 /2R ]        | [ P ] | [ F ] | [ P ] | [ X ] |
| COMPARE [ /N ]       | [ N ] | [ N ] | [ N ] | [ N ] |

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

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

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

**REMARKS:**  
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-923
NASA FMEA #: 05-6KF-2259A-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 923
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

NASA [ 3 /1R ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 3 /2R ] [ P ] [ F ] [ P ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-887
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-924
NASA FMEA #: 05-6KF-2259A-2
SUBSYSTEM: FRCS
MDAC ID: 924
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FLIGHT HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /3 ]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-888
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-925
NASA FMEA #: 05-6KF-2259 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 925
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ] [ F ] [ P ]</td>
<td>[ X ] *</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ F ] [ P ]</td>
<td>[ X ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(REPORT DATE 2/26/88)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-926
NASA FMEA #: 05-6KF-2259 -2

SUBSYSTEM: FRCS
MDAC ID: 926
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-890
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-927
NASA FMEA #: 05-6KF-2260 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 927
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-891
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-928
NASA FMEA #: 05-6KF-2260-2
SUBSYSTEM: FRCS
MDAC ID: 928
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[3/3]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3/2R]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[/N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-929
NASA FMEA #: 05-6KF-2259A-1
SUBSYSTEM: FRCS
MDAC ID: 929
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

CRITICALLY
REDOUDANCY SCREENS
FLIGHT HDW/FUNC A B C
NASA [ 3 /1R ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 3 /2R ] [ P ] [ F ] [ P ] [ X ]
COMPARE [ /N ] [ ] [ ] [ ] [ ] [ ]

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-930
NASA FMEA #: 05-6KF-2259A-2
SUBSYSTEM: FRCS
MDAC ID: 930
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-931
NASA FMEA #: 05-6KF-2259 -1
SUBSYSTEM: FRCS
MDAC ID: 931
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-895
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-932
NASA FMEA #: 05-6KF-2259 -2
SUBSYSTEM: FRCS
MDAC ID: 932
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-896
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-933
NASA FMEA #: 05-6KF-2266 -1

SUBSYSTEM: FRCS
MDAC ID: 933
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-934
NASA FMEA #: 05-6KF-2266 -2

SUBSYSTEM: FRCS
MDAC ID: 934
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-898
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA FMEA #: 05-6KF-2266 -1
ASSESSMENT ID: FRCS-935
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 935
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ] [ F ] [ P ]</td>
<td>[ X ] *</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ F ] [ P ]</td>
<td>[ X ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-899
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-936
NASA FMEA #: 05-6KF-2266 -2

SUBSYSTEM: FRCS
MDAC ID: 936
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
</tbody>
</table>

| NASA | 3 /3 | [ ] | [ ] | [ ] | [ ] | [ ] |
| IOA  | 3 /2R | [ P ] | [ F ] | [ P ] | [ X ] |
| COMPARE | /N | [ N ] | [ N ] | [ N ] | [ N ] |

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-900
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-937
NASA FMEA #: 05-6KF-2271 -1

SUBSYSTEM: FRCS
MDAC ID: 937
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-901
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-938
NASA FMEA #: 05-6KF-2271 -2

SUBSYSTEM: FRCS
MDAC ID: 938
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

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

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-902
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-939
NASA FMEA #: 05-6KF-2259A-1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 939
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-903
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-940
NASA FMEA #: 05-6KF-2259A-2
SUBSYSTEM: FRCS
MDAC ID: 940
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-941
NASA FMEA #: 05-6KF-2259 -1
SUBSYSTEM: FRCS
MDAC ID: 941
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY
FLIGHT
HDW/FUNC
NASA [ 3 /1R ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 3 /2R ] [ P ] [ F ] [ P ] [ X ]

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 4 AND 5. REDUNDANCY FOR MANIFOLD 4 JETS PROVIDED BY JETS ON MANIFOLD 2. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-942
NASA FMEA #: 05-6KF-2259 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 942
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-906
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-943
NASA FMEA #: 05-6KF-2260 -1
SUBSYSTEM: FRCS
MDAC ID: 943
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>BASELINE</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>NEW</td>
<td>[ X ]</td>
<td>[ X ]</td>
</tr>
</tbody>
</table>

NASA [ 3 /1R ]
IOA [ 2 /2 ]
COMPARE [ N /N ]

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ]

[ P ] [ P ] [ P ]

[ A ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 4. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 2. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-907
### APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-944  
**NASA FMEA #:** 05-6KF-2260 -2  

**ASSESSMENT ID:** FRCS-944  
**MDAC ID:** 944  
**ITEM:** DIODE  
**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLIGHT HDW/FUNC</strong></td>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>NASA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**  
NO DIFFERENCES.

**REPORT DATE** 2/26/88  
**C-908**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-945
NASA FMEA #: 05-6KF-2270 -I
SUBSYSTEM: FRCS
MDAC ID: 945
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

NASA DATA:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-946
NASA FMEA #: 05-6KF-2270 -2
SUBSYSTEM: FRCS
MDAC ID: 946
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-947
NASA FMEA #: 05-6KF-2214 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 947
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 1. REDUNDANCY PROVIDED BY JETS ON MANIFOLD
3. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF
THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-948
NASA FMEA #: 05-6KF-2214 -2

SUBSYSTEM: FRCS
MDAC ID: 948
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>3/1R</td>
<td>P</td>
</tr>
<tr>
<td>IOA</td>
<td>2/2</td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>N/N</td>
<td>N</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3/3 ] [ ] [ ] [ ] [ D ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
# APPENDIX C
## ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-949  
**NASA FMEA #:** 05-6KF-2214 -1

**SUBSYSTEM:** FRCS  
**MDAC ID:** 949  
**ITEM:** DRIVER, HYBRID  
**LEAD ANALYST:** D. HARTMAN

### ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

### RECOMMENDATIONS: (If different from NASA)

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

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

### REMARKS:

LOSE JETS ON MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-950
NASA FMEA #: 05-6KF-2214 -2
SUBSYSTEM: FRCS
MDAC ID: 950
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ ] [ D ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-914
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-951
NASA FMEA #: 05-6KF-2214 -1

SUBSYSTEM: FRCS
MDAC ID: 951
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

CRITICALITY REDUNDANCY SCREENS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>NASA</th>
<th>IOA</th>
<th>COMPARE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[ 3 /1R ]</td>
<td>[ 3 /2R ]</td>
<td>[ /N ]</td>
</tr>
<tr>
<td>A</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>B</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ N ]</td>
</tr>
<tr>
<td>C</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>CIL ITEM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-915
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-952
NASA FMEA #: 05-6KF-2214 -2

NASA DATA:
BASELINE [  ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 952
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ D ]

(ADD/DELETE)

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

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-916
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-953
NASA FMEA #: 05-6KF-2214 -1
SUBSYSTEM: FRCS
MDAC ID: 953
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-917
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-954
NASA FMEA #: 05-6KF-2214 -2
SUBSYSTEM: FRCS
MDAC ID: 954
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td></td>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-918
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-955
NASA FMEA #: 05-6KF-2214-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 955
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>APR</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>IOA</td>
<td>2 /2</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>N /N</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ D ]
(ADD/DELETE)

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

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-919
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-956
NASA FMEA #: 05-6KF-2214 -1

SUBSYSTEM: FRCS
MDAC ID: 956
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY
FLIGHT HDW/FUNC

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ X ]
IOA [ 2 /2 ] [ ] [ ] [ ] [ X ]
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(AADD/DELETE)

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

REMARKS:
LOSE JETS ON MANIFOLD 4. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 2. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR FAILED OFF THRUSTERS.
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID:   FRCS-957  
NASA FMEA #:  05-6KF-2220 -1

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRCS  
MDAC ID: 957  
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 2 /2 ]</td>
<td>[ X ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ X ]</td>
</tr>
</tbody>
</table>

COMPARE [ / ]

RECOMMENDATIONS: (If different from NASA)

[ / ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NO DIFFERENCES.

REPORT DATE 2/26/88  C-921
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-958
NASA FMEA #: 05-6KF-2220-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 958
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ] [ P ] [ F ] [ P ] [ X ] *
IOA  [ 3 /3 ] [  ] [  ] [  ] [  ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ N ]

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [  ]
INADEQUATE [  ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-959
NASA FMEA #: 05-6KF-2009 -i
SUBSYSTEM: FRCS
MDAC ID: 959
ITEM: FUSE, 2A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ]  [ P ]  [ P ]  [ P ]  [ A ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 1. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 3. JETS REQUIRED FOR TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-923
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-960
NASA FMEA #: 05-6KF-2008 -I

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 960
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

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

REMARKS:
LOSE JETS ON MANIFOLD 1. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 3. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE ISSUE FOR FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASADA DATA:  
ASSESSMENT ID: FRCS-961  
NASA FMEA #: 05-6KF-2007 -1  
SUBSYSTEM: FRCS
MDAC ID: 961
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
</tr>
<tr>
<td>HDW/FUNC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ] *[  ]
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ /N ] [ ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 1. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 3. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88  C-925
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-962
NASA FMEA #: 05-6KF-2009 -1
SUBSYSTEM: FRCS
MDAC ID: 962
ITEM: FUSE, 2A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY SCREENS</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [3 /3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N]</td>
<td>[N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
LOSE JETS ON MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED FOR TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-926
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-963
NASA FMEA #: 05-6KF-2008 -1

SUBSYSTEM: FRCS
MDAC ID: 963
ITEM: FUSE, IA

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ ] [ ] [ ]</td>
<td>[X ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ] [ ] [ ]</td>
<td>[N ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ] [ N ] [ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

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

REMARKS:
LOSE JETS ON MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE ISSUE FOR FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-964
NASA FMEA #: 05-6KF-2007 -1

SUBSYSTEM: FRCS
MDAC ID: 964
ITEM: FUSE, 1A

LEAD ANALYST: D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /1R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE [ /N]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

* CIL RETENTION RATIONALE: (If applicable)

| ADEQUATE [ ] |
| INADEQUATE [ ] |

**REMARKS:**
LOSE JETS ON MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-928
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-965
NASA FMEA #: 05-6KF-2009 -1
SUBSYSTEM: FRCS
MDAC ID: 965
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
LOSE JETS ON MANIFOLD 4. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 2. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.
ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-966
NASA FMEA #: 05-6KF-2008 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 966
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLIGHT HDW/FUNC A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ] [ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ] [ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 3. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 1. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE ISSUE FOR FAILED OFF THRUSTERS.

REPORT DATE 2/26/88  C-930
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-967
NASA FMEA #: 05-6KF-2007-1
SUBSYSTEM: FRCS
MDAC ID: 967
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 3. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 1. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-931
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-968
NASA FMEA #: 05-6KF-2017 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 968
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-932
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-969
NASA FMEA #: 05-6KF-2007 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 969
ITEM: FUSE, 1A

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLYIGHT HDW/FUNC A B C ITEM</td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ] *</td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE [ / ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-933
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-970
NASA FMEA #: 05-6KF-2008 -1

SUBSYSTEM: FRCS
MDAC ID: 970
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>NASA</td>
<td>[3/1R]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA</td>
<td>[2/2]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[N/N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS ON MANIFOLD 4. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 2. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE ISSUE FOR FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-934
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-971
NASA FMEA #: 05-6KF-2017 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 971
ITEM: FUSE, 1A

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-935
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-972
NASA FMEA #: 05-6KF-2130 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 972
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ] (ADD/DELETE)

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

REMARKS:
LOSE JETS ON MANIFOLD I. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 3. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-973
NASA FMEA #: 05-6KF-2130 -2
SUBSYSTEM: FRCS
MDAC ID: 973
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-974
NASA FMEA #: 05-6KF-2130 -1
SUBSYSTEM: FRCS
MDAC ID: 974
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA 3/1R</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>IOA 2/2</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE N/N</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE JETS OF MANIFOLD 2. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 4. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-938
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-975
NASA FMEA #: 05-6KF-2130 -2

SUBSYSTEM: FRCS
MDAC ID: 975
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 975
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| NASA [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] *
| IOA [ 3 /3 ] | [ ]     | [ ] | [ ] | [ ] |
| COMPARE [ /N ] | [ N ] | [ N ] | [ N ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-976
NASA FMEA #: 05-6KF-2130 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 976
ITEM: RELAY, LATCHING

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

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

REMARKS:
LOSE JETS ON MANIFOLD 4. REDUNDANCY PROVIDED BY JETS ON MANIFOLD 2. JETS REQUIRED TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-940
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSessment ID: FRCS-977
NASA FMEA #: 05-6KF-2130 -2

SUBSYSTEM: FRCS
MDAC ID: 977
ITEM: RELAY, LATCHING
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

| [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA FMEA CONSIDERS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-941
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-978
NASA FMEA #: 05-6KF-2095 -1
SUBSYSTEM: FRCS
MDAC ID: 978
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-979
NASA FMEA #: 05-6KF-2095 -1

SUBSYSTEM: FRCS
MDAC ID: 979
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-943
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-980
NASA FMEA #: 05-6KF-2093 -1

SUBSYSTEM: FRCS
MDAC ID: 980
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

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

* CIL RETENTION RATIONALE: (If applicable)

<table>
<thead>
<tr>
<th>ADEQUATE</th>
<th>INADEQUATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88       C-944
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-981
NASA FMEA #: 05-6KF-2093 -1
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 981
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88
C-945
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-982
NASA FMEA #: 05-6KF-2098 -1
NASA DATA: BASELINE [ ] NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 982
ITEM: RESISTOR, 1.8K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>3/3</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>3/3</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-946
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-983
NASA FMEA #: 05-6KF-2098 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 983
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS
FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-947
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-984
NASA FMEA #: 05-6KF-2098 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 984
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-985  
NASA FMEA #: 05-6KF-2098 -1  
NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRCS  
MDAC ID: 985  
ITEM: RESISTOR, 2.2K 1/2W  
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-949
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-986
NASA FMEA #: 05-6KF-2097 -1

SUBSYSTEM: FRCS
MDAC ID: 986
ITEM: RESISTOR, 1.8K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS: NO DIFFERENCES.

REPORT DATE 2/26/88 C-950
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-987
NASA FMEA #: 05-6KF-2097 -1

SUBSYSTEM: FRCS
MDAC ID: 987
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-951
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-988
NASA FMEA #: 05-6KF-2094 -1
SUBSYSTEM: FRCS
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
</tr>
</tbody>
</table>

NASA [ 3 /IR ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 3 /2R ] [ P ] [ F ] [ P ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-952
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-989
NASA FMEA #: 05-6KF-2094 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 989
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

COMPARE [ ] [ ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-953
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-990
NASA FMEA #: 05-6KF-2096 -1
SUBSYSTEM: FRCS
MDAC ID: 990
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NASA</td>
<td>IOA</td>
</tr>
<tr>
<td></td>
<td>[ 3 /3 ]</td>
<td>[ 3 /3 ]</td>
</tr>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>COMPARISON</td>
<td>[ / ]</td>
<td>[ / ]</td>
</tr>
<tr>
<td></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-991
NASA FMEA #: 05-6KF-2096 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 991
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-955
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-992
NASA FMEA #: 05-6KF-2097-1
SUBSYSTEM: FRCS
MDAC ID: 992
ITEM: RESISTOR, 2.2K 1/2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC A B C</td>
<td>Item C</td>
</tr>
<tr>
<td>NASA [ 3/3 ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3/3 ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-956
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA:
ASSESSMENT ID: FRCS-993        BASELINE [ ]
NASA FMEA #: 05-6KF-2097 -1    NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 993
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

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

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

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

(ADD/DELETE)

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88  C-957
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-994
NASA FMEA #: 05-6KF-2095 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 994
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-958
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-995
NASA FMEA #: 05-6KF-2095 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 995
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-959
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-996
NASA FMEA #: 05-6KF-2093 -1
SUBSYSTEM: FRCS
MDAC ID: 996
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>3/3</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>3/3</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>/</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-960
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-997
NASA FMEA #: 05-6KF-2093 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 997
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

COMPARE [ / ]

RECOMMENDATIONS: (If different from NASA)

[ / ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-961
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88

**ASSESSMENT ID:** FRCS-998

**NASA FMEA #:** 05-6KF-2098 -1

**SUBSYSTEM:** FRCS

**MDAC ID:** 998

**ITEM:** RESISTOR, 2.2K 1/2W

**LEAD ANALYST:** D. HARTMAN

**NASA DATA:**

<table>
<thead>
<tr>
<th></th>
<th>BASELINE</th>
<th>NEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ X ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA</td>
<td>[3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

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

(ADD/DELETE)

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

  ADEQUATE [ ]

  INADEQUATE [ ]

**REMARKS:**

NO DIFFERENCES.

---

**REPORT DATE** 2/26/88  C-962
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-999
NASA FMEA #: 05-6KF-2098-1
SUBSYSTEM: FRCS
MDAC ID: 999
ITEM: RESISTOR, 2.2K 1/2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-963
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1000
NASA FMEA #: 05-6KF-2094 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1000
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-964
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1001
NASA FMEA #: 05-6KF-2094 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1001
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-965
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1002
NASA FMEA #: 05-6KF-2096 -1
SUBSYSTEM: FRCS
MDAC ID: 1002
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ] [ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ] [ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ] [ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1003
NASA FMEA #: 05-6KF-2096 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1003
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] *

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS
FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-967
### APPENDIX C
### ASSESSMENT WORKSHEET

| Assesssment Date: | 1/29/88 |
| NASA Data: |  |
| Assessment ID: | FRCS-1004 |
| NASA FMEA #: | 05-6KF-2098 -1 |
| Subsystem: | FRCS |
| MDAC ID: | 1004 |
| Item: | RESISTOR, 1.8K 1/4W |
| Lead Analyst: | D. Hartman |

#### Assessment:

<table>
<thead>
<tr>
<th>Criticality Flight</th>
<th>Redundancy Screens</th>
<th>Cil Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 / 3 ]</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 / 3 ]</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
</tr>
<tr>
<td>Compare [ / ]</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
</tr>
</tbody>
</table>

#### Recommendations:

(If different from NASA)

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

(ADD/DELETE)

* CIL Retention Rationale: (If applicable)

Adequate [ ]

Inadequate [ ]

### Remarks:

No Differences.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-1005  
NASA FMEA #: 05-6KF-2098-1

NASA DATA:
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRCS  
MDAC ID: 1005  
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
| IOA [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] | [ ]
| COMPARE [ / ] | [ ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88  C-969
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1006
NASA FMEA #: 05-6KF-2097 -1
SUBSYSTEM: FRCS
MDAC ID: 1006
ITEM: RESISTOR, 1.8K 1/4W
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

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

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

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

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-970
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1007
NASA FMEA #: 05-6KF-2097 -1

SUBSYSTEM: FRCS
MDAC ID: 1007
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-971
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1008
NASA FMEA #: 05-6KF-2097 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1008
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1009
NASA FMEA #: 05-6KF-2097 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1009
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
</tbody>
</table>

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

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

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-973
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1010
NASA FMEA #: 05-6KF-2095 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1010
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-974
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1011
NASA FMEA #: 05-6KF-2095-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1011
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

| NASA | 3/3 | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| IOA  | 3/3 | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

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

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

(ADD/DELETE)

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-975
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1012
NASA FMEA #: 05-6KF-2093 -1
SUBSYSTEM: FRCS
MDAC ID: 1012
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

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:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-976
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1013
NASA FMEA #: 05-6KF-2093 -I
SUBSYSTEM: FRCS
MDAC ID: 1013
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>SUBSYSTEM</th>
<th>MDAC ID</th>
<th>ITEM: RESISTOR, 5.1K 1/4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSESSMENT DATE: 1/29/88</td>
<td>ASSESSMENT ID: FRCS-1013</td>
<td>NASA FMEA #: 05-6KF-2093 -I</td>
</tr>
</tbody>
</table>

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

CRITICALITY
FLIGHT
HDW/FUNC

REDUNDANCY SCREENS
A B C

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]

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

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

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-977
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1014
NASA FMEA #: 05-6KF-2098 -1

SUBSYSTEM: FRCS
MDAC ID: 1014
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1015
NASA FMEA #: 05-6KF-2098 -1

SUBSYSTEM: FRCS
MDAC ID: 1015
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1016
NASA FMEA #: 05-6KF-2094 -1
SUBSYSTEM: FRCS
MDAC ID: 1016
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| NASA [ 3 /1R ] | [ P ] | [ F ] | [ P ] | [ X ] *
| IOA [ 3 /2R ] | [ P ] | [ F ] | [ P ] | [ X ] |
| COMPARE [ /N ] | [ ] | [ ] | [ ] | [ ] |

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1017
NASA FMEA #: 05-6KF-2094 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1017
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1018
NASA FMEA #: 05-6KF-2098 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1018
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A B C</td>
<td>ITEM</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARDS:
NO DIFFERENCES.

REPORT DATE 2/26/88
C-982
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1019
NASA FMEA #: 05-6KF-2098 -1

SUBSYSTEM: FRCS
MDAC ID: 1019
ITEM: RESISTOR, 1.8K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-1020
BASELINE [ ]
NASA FMEA #: 05-6KF-2097 -1
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 1020
ITEM: RESISTOR, 1.8K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLIGHT HDW/FUNC A</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NASA</th>
<th>I/OA</th>
<th>COMPARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ 3 /3 ]</td>
<td>[ 3 /3 ]</td>
<td>[ / ]</td>
</tr>
</tbody>
</table>

| ITEM | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-984
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1021
NASA FMEA #: 05-6KF-2097 -1
SUBSYSTEM: FRCS
MDAC ID: 1021
ITEM: RESISTOR, 1.8K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-985
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT ID: FRCS-1022
NASA FMEA #: 05-6KF-2097 -1

SUBSYSTEM: FRCS
MDAC ID: 1022
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-986
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1023
NASA FMEA #: 05-6KF-2097 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 1023
ITEM: RESISTOR, 2.2K 1/2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS
FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88  C-987
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1024
NASA FMEA #: 05-6KF-2096 -1
SUBSYSTEM: FRCS
MDAC ID: 1024
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A B C</td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] *</td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-988
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1025
NASA FMEA #: 05-6KF-2096 -1

SUBSYSTEM: FRCS
MDAC ID: 1025
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88  C-989
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1026
NASA FMEA #: 05-6KF-2098 -1
SUBSYSTEM: FRCS
MDAC ID: 1026
ITEM: RESISTOR, 2.2K 1/2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

[ / ]    [ ]   [ ]   [ ]   [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1027
NASA FMEA #: 05-6KF-2098

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1027
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

REPORT DATE 2/26/88  C-991

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1028
NASA FMEA #: 05-6KF-2094 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1028
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-992
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1029
NASA FMEA #: 05-6KF-2094 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1029
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1030
NASA FMEA #: 05-6KF-2096 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1030
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-994
APPENDIX C

ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1031
NASA FMEA #: 05-6KF-2096 -1

NASA DATA:
BASELINE [ ]
NEW [ x ]

SUBSYSTEM: FRCS
MDAC ID: 1031
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-995
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1032
NASA FMEA #: 05-6KF-2098 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1032
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS A</th>
<th>REDUNDANCY SCREENS B</th>
<th>REDUNDANCY SCREENS C</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA  [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88     C-996
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1033
NASA FMEA #: 05-6KF-2098 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1033
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88
C-997
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1034
NASA FMEA #: 05-6KF-2111 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1034
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[3/2R]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3/2R]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-998
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1035
NASA FMEA #: NONE

SUBSYSTEM: FRCS
MDAC ID: 1035
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RLR42 TYPE RESISTORS HAVE BEEN CHANGED TO RWR80 TYPE RESISTORS WHICH CAN SHORT. IOA RECOMMENDS ITS INCLUSION INTO A FMEA.
NOTE: OPEN FAILURE MODE FOR THIS RESISTOR ON THE 05-6KF-2111-1 FMEA.

ISSUE RESOLVED AT MEETING. SHORT FAILURE MODE FOR THIS RESISTOR TO BE CREATED.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1036
NASA FMEA #: 05-6KF-2094 -1
SUBSYSTEM: FRCS
MDAC ID: 1036
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1000
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1037
NASA FMEA #: 05-6KF-2094 -2

SUBSYSTEM: FRCS
MDAC ID: 1037
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88
C-1001
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1038
NASA FMEA #: 05-6KF-2096 -1
SUBSYSTEM: FRCS
MDAC ID: 1038
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

<table>
<thead>
<tr>
<th>ASSESSMENT DATE: 1/29/88</th>
<th>NASA DATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSESSMENT ID: FRCS-1039</td>
<td>BASELINE [ ]</td>
</tr>
<tr>
<td>NASA FMEA #: 05-6KF-2096 -1</td>
<td>NEW [ X ]</td>
</tr>
</tbody>
</table>

**SUBSYSTEM:** FRCS  
**MDAC ID:** 1039  
**ITEM:** RESISTOR, 5.1K 1/4W

**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<p>| CRITICALLY REDUNDANCY SCREENS CIL |</p>
<table>
<thead>
<tr>
<th>FLIGHT</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88  
C-1003
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88      NASA DATA:
ASSESSMENT ID: FRCS-1040      BASELINE [ ]
NASA FMEA #: 05-6KF-2097 -1      NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1040
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICITY SCREEN</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1041
NASA FMEA #: 05-6KF-2097 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1041
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1005
ASSSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1042
NASA FMEA #: 05-6KF-2097 -1

SUBSYSTEM: FRCS
MDAC ID: 1042
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1006
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1043
NASA FMEA #: 05-6KF-2097 -1

SUBSYSTEM: FRCS
MDAC ID: 1043
ITEM: RESISTOR, 2.2K 1/2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1007
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1044
NASA FMEA #: 05-6KF-2093 -1

SUBSYSTEM: FRCS
MDAC ID: 1044
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

* CIL RETENTION RATIONALE: (If applicable)

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1045
NASA FMEA #: 05-6KF-2093 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 1045
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1009
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1046
NASA FMEA #: 05-6KF-2098 -1

SUBSYSTEM: FRCS
MDAC ID: 1046
ITEM: RESISTOR, 2.2K 1/2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1010
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1047
NASA FMEA #: 05-6KF-2098 -1

SUBSYSTEM: FRCS
MDAC ID: 1047
ITEM: RESISTOR, 2.2K 1/2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88  C-1011
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1048
NASA FMEA #: 05-6KF-2098 -1
SUBSYSTEM: FRCS
MDAC ID: 1048
ITEM: RESISTOR, 1.8K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------</td>
<td>-----</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88
C-1012
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1049
NASA FMEA #: 05-6KF-2098 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1049
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88  C-1013
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1050
NASA FMEA #: 05-6KF-2109 -1

SUBSYSTEM: FRCS
MDAC ID: 1050
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-1051
NASA FMEA #: 05-6KF-2109 -1

BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1051
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1015
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1052
NASA FMEA #: 05-6KF-2110 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1052
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1016
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1053
NASA FMEA #: 05-6KF-2110 -1

SUBSYSTEM: FRCS
MDAC ID: 1053
ITEM: RESISTOR, 2.2K 1/2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] *

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS
FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1017
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1054
NASA FMEA #: 05-6KF-2109 -1
SUBSYSTEM: FRCS
MDAC ID: 1054
ITEM: RESISTOR, 5.1K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]  
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88  C-1018
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-1055  
**NASA PMEA #:** 05-6KF-2109 -1  
**NASA DATA:**  
- BASELINE [ ]  
- NEW [ X ]

**SUBSYSTEM:** FRCS  
**MDAC ID:** 1055  
**ITEM:** RESISTOR, 5.1K 2W  
**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

**REMARKS:**  
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1056
NASA FMEA #: 05-6KF-2110 -1

SUBSYSTEM: FRCS
MDAC ID: 1056
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA        | [3/3] | [ ] | [ ] | [ ] | [ ] *
| IOA         | [3/3] | [ ] | [ ] | [ ] |
| COMPARE     | [ / ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]

INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1020
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1057
NASA FMEA #: 05-6KF-2110 -1

SUBSYSTEM: FRCS
MDAC ID: 1057
ITEM: RESISTOR, 1.8K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1021
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1058 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1058
ITEM: RJDF1B F1 MANIFOLD DRIVER SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLYT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[  ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11120X-11124X.

REPORT DATE 2/26/88 C-1022
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-1059  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]

SUBSYSTEM: FRCS  
MDAC ID: 1059  
ITEM: RJDF1B F1 MANIFOLD DRIVER SWITCH  
LEAD ANALYST:  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:  
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11120X-11124X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ] NASA DATA: [ ]
ASSESSMENT ID: FRCS-1060 BASELINE [ ]
NASA FMEA #: [ ] NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1060
ITEM: RJDF1B F1 MANIFOLD DRIVER ON SWITCH CONTACTS 1, 2

LEAD ANALYST: [ ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

NASA [ ]
IOA [3/2R]
COMPARE [N/N]

RECOMMENDATIONS: (If different from NASA)

([ ] [ ] [ ] [ ] [ ])

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11120X-11124X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:NASA DATA:
ASSESSMENT ID:FRCS-1061 BASELINE [ ]
NASA FMEA #:FRCS NEW [ ]

NASA DATA:
SUBSYSTEM:FRCS NASA DATA:
MDAC ID:1061 BASELINE [ ]
ITEM:RJDF1B F1 MANIFOLD DRIVER ON SWITCH CONTACTS 1, 2

LEAD ANALYST:
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11120X-11124X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1062 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1062
ITEM: RJDF1B F1 MANIFOLD DRIVER OFF SWITCH CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11120X-11124X.

REPORT DATE 2/26/88 C-1026
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1063 
NASA FMEA #: 

NASA DATA: 
BASELINE [ ] 
NEW [ ]

SUBSYSTEM: FRCS 
MDAC ID: 1063 
ITEM: RJDF1B F1 MANIFOLD DRIVER OFF SWITCH CONTACTS 3, 4 

LEAD ANALYST: 

ASSESSMENT: 

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

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

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

(ADD/DELETE)

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

REMARKS: 
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11120X-11124X.

REPORT DATE 2/26/88 C-1027
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1064 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1064
ITEM: RJDF1B F1 MANIFOLD DRIVER ON SWITCH CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11120X-11124X.

REPORT DATE 2/26/88 C-1028
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:       NASA DATA:
ASSESSMENT ID:       FRCS-1065       BASELINE [ ]
NASA FMEA #:       NASA DATA:       NEW [ ]
NASA FMEA #:       FRCS
MDAC ID:       1065
ITEM:       RJDF1B F1 MANIFOLD DRIVER ON SWITCH CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ]   [ ]   [ ]   [ ]   [ ]   [ ]   [ ]   [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11120X-11124X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-1066  
NASA FMEA #:  
SUBSYSTEM:  FRCS  
MDAC ID:  1066  
ITEM:  RJDF1B F1 MANIFOLD DRIVER OFF SWITCH CONTACTS 7, 8  
LEAD ANALYST:  
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

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

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11120X-11124X.

REPORT DATE 2/26/88  C-1030
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-1067  
NASA FMEA #:  
SUBSYSTEM:  FRCS  
MDAC ID:  1067  
ITEM:  RJDF1B F1 MANIFOLD DRIVER OFF SWITCH CONTACTS 7, 8  
LEAD ANALYST:  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

<table>
<thead>
<tr>
<th>ADEQUATE</th>
<th>INADEQUATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

REMARKS:

RJDF1B F1 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11120X-11124X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1068 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS MDAC ID: 1068
ITEM: RJDF1B F1 MANIFOLD LOGIC SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] [ ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1B F1 MANIFOLD LOGIC SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11115X-11119X.

REPORT DATE 2/26/88 C-1032
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: NEU  
MDAC #:  
ITEM:  
LEAD ANALYST:  
ASSESSMENT:  

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

NASA [ / ] [ ] [ ] [ ] [ ] [ ] * 
IOA [ 2 /2 ] [ ] [ ] [ ] [ ] [ X ]

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

RECOMMENDATIONS:  (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF1B F1 MANIFOLD LOGIC SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11115X-11119X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1070 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1070
ITEM: RJDF1B F1 MANIFOLD LOGIC SWITCH ON CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<p>| CRITICALITY | REDUNDANCY SCREENS | CIL ITEM |</p>
<table>
<thead>
<tr>
<th>FLIGHT HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3/2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF1B F1 MANIFOLD LOGIC SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11115X-11119X.

REPORT DATE 2/26/88 C-1034
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1071
NASA FMEA #: 
NASA DATA: 
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1071
ITEM: RJDF1B F1 MANIFOLD LOGIC SWITCH ON CONTACTS 1, 2

LEAD ANALYST: 

ASSESSMENT:

<p>| CRITICALITY | REDUNDANCY SCREENS | CIL |</p>
<table>
<thead>
<tr>
<th>FLIGHT HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF1B F1 MANIFOLD LOGIC SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11115X-11119X.

REPORT DATE 2/26/88 C-1035
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:     NASA DATA:
ASSESSMENT ID:       FRCS-1072     BASELINE [    ]
NASA FMEA #:         FRCS-1072     NEW [    ]
SUBSYSTEM:           FRCS
MDAC ID:             1072
ITEM:                RJDF1B F1 MANIFOLD LOGIC SWITCH OFF CONTACTS 3, 4
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[   ]</td>
<td>[   ]</td>
<td>[   ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3/3 ]</td>
<td>[   ]</td>
<td>[   ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N/N ]</td>
<td>[   ]</td>
<td>[   ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
RJDF1B F1 MANIFOLD LOGIC SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11115X-11119X.

REPORT DATE 2/26/88         C-1036
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1073 Baseline [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1073
ITEM: RJDF1B F1 MANIFOLD LOGIC SWITCH OFF CONTACTS 3, 4
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
RJDF1B F1 MANIFOLD LOGIC SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11115X-11119X.

REPORT DATE 2/26/88 C-1037
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1074
NASA FMEA #: [ ]
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1074
ITEM: RJDF1A F2 MANIFOLD DRIVER SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE [N /N]</td>
<td>[N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1A F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11130X-11134X.

REPORT DATE 2/26/88 C-1038
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ] NASA DATA: [ ]
ASSESSMENT ID: FRCS-1075 BASELINE [ ]
NASA FMEA #: [ ] NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1075
ITEM: RJDFIA F2 MANIFOLD DRIVER SWITCH

LEAD ANALYST: [ ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDFIA F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11130X-11134X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ] NASA DATA: [ ]
ASSESSMENT ID: FRCS-1076 BASELINE [ ]
NASA FMEA #: [ ] NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1076
ITEM: RJDF1A F2 MANIFOLD DRIVER ON SWITCH CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] [ ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1A F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11130X-11134X.

REPORT DATE 2/26/88 C-1040
APPENDIX C
ASSESSMENT WORKSHEET

ASSOCIATION DATE: NASA DATA:
ASSESSMENT ID: FRCS-1077 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS NASA ID:
MDAC ID: 1077
ITEM: RJDF1A F2 MANIFOLD DRIVER ON SWITCH CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1A F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11130X-11134X.

REPORT DATE 2/26/88 C-1041
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  NASA DATA:
ASSESSMENT ID:  FRCS-1078  BASELINE [ ]
NASA FMEA #:  NEW [ ]

SUBSYSTEM:  FRCS
MDAC ID:  1078
ITEM:  RJDF1A F2 MANIFOLD DRIVER OFF SWITCH CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF1A F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11130X-11134X.

REPORT DATE 2/26/88  C-1042
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1079
NASA FMEA #: 
NASA DATA: BASELINE [ ] NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1079
ITEM: RJDF1A F2 MANIFOLD DRIVER OFF SWITCH CONTACTS 3, 4

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ] / [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ ] / [3 /3]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ ] / [N /N]</td>
<td>[ ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1A F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11130X-11134X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1080 NASA FMEA #:
NASA FMEA #: BASELINE [ ]
MDAC ID: 1080 NEW [ ]
ITEM: RJDIF1A F2 MANIFOLD DRIVER ON SWITCH CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

| NASA [ / ] | [ ] [ ] [ ] [ ] [ ] [ ] |
| IOA [ 3 /2R ] | [ P ] [ P ] [ P ] [ ] |
| COMPARE [ N /N ] | [ N ] [ N ] [ N ] [ ] |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDIF1A F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11130X-11134X.

REPORT DATE 2/26/88 C-1044
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: ASSESSMENT ID: FRCS-1081 NASA DATA:
ASSESSMENT ID: FRCS-1081 NASA FMEA #: NASA FMEA #: FRCS-1081
SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 1081 BASELINE [ ] NEW [ ]
ITEM: RJDFIA F2 MANIFOLD DRIVER ON SWITCH CONTACTS 5, NASA [ ] [ ] [ ] [ ] [ ] * BASELINE [ ] NEW [ ]
LEAD ANALYST: ASSESSMENT:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ] [ X ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ ] [ ] [ ] [ ] [ ] [ X ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N ] [ ] [ ] [ ] [ ] [ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ] INADEQUATE [ ]

REMARKS:
RJDFIA F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11130X-11134X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1082 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1082
ITEM: RJDF1A F2 MANIFOLD DRIVER OFF SWITCH CONTACTS 7, 8

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1A F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11130X-11134X.

REPORT DATE 2/26/88 C-1046
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1083
NASA FMEA #: [ ]
NASA DATA: BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1083
ITEM: RJDF1A F2 MANIFOLD DRIVER OFF SWITCH CONTACTS 7, 8

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] [ ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>IOA [ ] [ ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>COMPARE [ ] [ ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF1A F2 MANIFOLD DRIVER SWITCH 8 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11130X-11134X.

REPORT DATE 2/26/88 C-1047
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-1084  
NASA FMEA #:  
SUBSYSTEM:  
MDAC ID:  1084  
ITEM:  RJDF1A F2 MANIFOLD LOGIC SWITCH  
LEAD ANALYST:  
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLYT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td><img src="https://example.com" alt="NASA" /></td>
<td><img src="https://example.com" alt="IOA" /></td>
<td><img src="https://example.com" alt="COMPARE" /></td>
</tr>
<tr>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>[ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF1A F2 MANIFOLD DRIVER SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11125X-11129X.

REPORT DATE 2/26/88

C-1048
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  NASA DATA:
ASSESSMENT ID:    FRCS-1085  BASELINE [   ]
NASA FMEA #:      NEW [   ]

SUBSYSTEM:        FRCS  MDAC ID:  1085
ITEM:             RJDF1A F2 MANIFOLD LOGIC SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] [ ] [ ] [*]
IOA [ 2 /2 ] [ ] [ ] [ ] [ ] [ ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:

RJDF1A F2 MANIFOLD DRIVER SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11125X-11129X.

REPORT DATE 2/26/88  C-1049
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-1086
NASA FMEA #:
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1086
ITEM: RJDF1A F2 MANIFOLD LOGIC SWITCH ON CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] [ ] *

IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
RJDF1A F2 MANIFOLD DRIVER SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11125X-11129X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: FRCS-1087
ASSESSMENT ID: NASA FMEA #:
NASA DATA: BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1087
ITEM: RJDFIA F2 MANIFOLD LOGIC SWITCH ON CONTACTS 1, 2

LEAD ANALYST: FRCS

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2/2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N/N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

NASA DATA:
BASELINE [ ]
NEW [ ]

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

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

REMARKS:
RJDFIA F2 MANIFOLD DRIVER SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11125X-11129X.
# APPENDIX C
## ASSESSMENT WORKSHEET

### ASSESSMENT DATE:  

### NASA DATA:  

### ASSESSMENT ID:  FRCS-1088  

### NASA FMEA #:  

### SUBSYSTEM:  FRCS  

### MDAC ID:  1088  

### ITEM:  RJDF1A F2 MANIFOLD LOGIC SWITCH OFF CONTACTS 3, 4  

### LEAD ANALYST:  

### ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

### RECOMMENDATIONS:  (If different from NASA)  

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

(ADD/DELETE)  

* CIL RETENTION RATIONALE:  (If applicable)  

ADEQUATE [ ]  

INADEQUATE [ ]  

### REMARKS:  

RJDF1A F2 MANIFOLD DRIVER SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11125X-11129X.  

---  

REPORT DATE 2/26/88  

C-1052
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1089
NASA FMEA #: 
SUBSYSTEM: FRCS
MDAC ID: 1089
ITEM: RJDFIA F2 MANIFOLD LOGIC SWITCH OFF CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

CRITICALITY
FLIGHT
HDW/FUNC

REduNDANCY SCREENS

CIL
ITEM

NASA [ / ] [ ] [ ] [ ] [ ] [ ]

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

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

RJDFIA F2 MANIFOLD DRIVER SWITCH 7 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11125X-11129X.

REPORT DATE 2/26/88 C-1053
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1090 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS MDAC ID: 1090
ITEM: RJDF2A F3 MANIFOLD DRIVER SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A B C</td>
<td></td>
</tr>
<tr>
<td>NASA [ ] /</td>
<td>[ ] [ ] [ ] [ ] [ ] [ ]</td>
<td>*</td>
</tr>
<tr>
<td>IOA [ 3 /2R</td>
<td>[ P ] [ P ] [ P ] [ ] [ ] [ ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE [ N /N ] [ N ] [ N ] [ N ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

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

REMARKS:
RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11140X-11144X.

REPORT DATE 2/26/88 C-1054
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-1091  
NASA FMEA #:  
SUBSYSTEM:  FRCS  
MDAC ID:  1091  
ITEM:  RJDF2A F3 MANIFOLD DRIVER SWITCH  
LEAD ANALYST:  

NASA DATA:  
BASELINE [ ]  
NEW [ ]  
FRCS-1091 BASELINE [ ]
NEW [ ]

NASA FMEAs:  
FRCS-1091 BASELINE [ ]
NEW [ ]

ITEM: RJDF2A F3 MANIFOLD DRIVER SWITCH  
CRITICALITY REDUNDANCY SCREENS CIL ITEM  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11140X-11144X.

REPORT DATE 2/26/88  C-1055
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA: BASELINE [ ] NEW [ ]
ASSESSMENT ID: FRCS-1092 NASA FMEA #: 
MDAC ID: 1092 SUBSYSTEM: FRCS
ITEM: RJDF2A F3 MANIFOLD DRIVER ON SWITCH CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ ] / [ ] [ ] [ ] [ ] [ ] [ ] * 
ISA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] 
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11140X-11144X.
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:**

**ASSESSMENT ID:** FRCS-1093

**NASA DATA:**

- BASELINE [ ]
- NEW [ ]

<table>
<thead>
<tr>
<th>NASA FMEA #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA FMEA #</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBSYSTEM:</th>
<th>FRCS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MDAC ID:</th>
<th>1093</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ITEM:</th>
<th>RJDF2A F3 MANIFOLD DRIVER ON SWITCH CONTACTS 1, 2</th>
</tr>
</thead>
</table>

**LEAD ANALYST:**

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY REDUNDANCY SCREENS CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight HDW/FUNC</td>
</tr>
<tr>
<td>NASA [ / ] [ ] [ ] [ ] [ ] [ ] [ ] *</td>
</tr>
<tr>
<td>IOA [ 2 /2 ] [ ] [ ] [ ] [ ] [ ] [ X ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ] [ ] [ ] [ ] [ ] [ N ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

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

- ADEQUATE [ ]
- INADEQUATE [ ]

**REMARKS:**

RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11140X-11144X.

---

**REPORT DATE 2/26/88**

**C-1057**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-1094  
NASA FMEA #:  

NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM: FRCS  
MDAC ID: 1094  
ITEM: RJDF2A F3 MANIFOLD DRIVER OFF SWITCH CONTACTS 3, 4  

LEAD ANALYST:  
ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)  

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

* CIL RETENTION RATIONALE: (If applicable)  

ADEQUATE [ ]  
INADEQUATE [ ]  

REMARKS:  
RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11140X-11144X.

REPORT DATE 2/26/88  
C-1058
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1095 
NASA FMEA #: 
NASA DATA: 
BASELINE [ ] 
NEW [ ]
SUBSYSTEM: FRCS 
MDAC ID: 1095 
ITEM: RJDF2A F3 MANIFOLD DRIVER OFF SWITCH CONTACTS 3, 4
LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11140X-11144X.

REPORT DATE 2/26/88 C-1059
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1096
NASA FMEA #: [ ]
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1096
ITEM: RJDF2A F3 MANIFOLD DRIVER ON SWITCH CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11140X-11144X.

REPORT DATE 2/26/88
C-1060
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1097 BASELINE [ ]
NASA FMEA #: NASA NEW [ ]

SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 1097 BASELINE [ ]
ITEM: RJDF2A F3 MANIFOLD DRIVER ON SWITCH CONTACTS 5, NEW [ ]
6
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE
ASSESSMENT IDS FRCS 11140X-11144X.

REPORT DATE 2/26/88 C-1061
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1098 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1098
ITEM: RJDF2A F3 MANIFOLD DRIVER OFF SWITCH CONTACTS 7, 8

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ADEQUATE [ ]</td>
</tr>
<tr>
<td>INADEQUATE [ ]</td>
</tr>
</tbody>
</table>

REMARKS:

RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11140X-11144X.

REPORT DATE 2/26/88 C-1062
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID:  FRCS-1099
NASA FMEA #: 

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM:  FRCS
MDAC ID:  1099
ITEM:  RJDF2A F3 MANIFOLD DRIVER OFF SWITCH CONTACTS 7, 8

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
RJDF2A F3 MANIFOLD DRIVER SWITCH 6 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11140X-11144X.
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:**

**NASA DATA:**

**ASSESSMENT ID:** FRCS-1100

**NASA FMEA #:**

**SUBSYSTEM:** FRCS

**MDAC ID:** 1100

**ITEM:** RJDF2A F3 MANIFOLD LOGIC SWITCH

**LEAD ANALYST:**

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

**NASA**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IOA**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 /2R</td>
<td>P</td>
<td>P</td>
</tr>
</tbody>
</table>

**COMPARE**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N /N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

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

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Adequate [ ]

Inadequate [ ]

**REMARKS:**

RJDF2A F3 MANIFOLD LOGIC SWITCH 5 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11135X-11139X.

**REPORT DATE 2/26/88**

C-1064
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-1101  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]

SUBSYSTEM: FRCS  
MDAC ID: 1101  
ITEM: RJDF2A F3 MANIFOLD LOGIC SWITCH  
LEAD ANALYST:  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:  
RJDF2A F3 MANIFOLD LOGIC SWITCH 5 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11135X-11139X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-1102  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM:  FRCS  
MDAC ID:  1102  
ITEM:  RJDF2A F3 MANIFOLD LOGIC SWITCH ON CONTACTS 1, 2  
LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:  
RJDF2A F3 MANIFOLD LOGIC SWITCH 5 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11135X-11139X.

REPORT DATE 2/26/88  
C-1066
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: NASA FMEA #:
FRCS-1103 BASELINE [ ]
MDAC ID: NEW [ ]
NASA FMEA #:
ITEM: MDAC ID:
RJDF2A F3 MANIFOLD LOGIC SWITCH ON CONTACTS 1, 2
SUBSYSTEM: ITEM:
FRCS RJDF2A F3 MANIFOLD LOGIC SWITCH ON CONTACTS 1, 2
LEAD ANALYST:
ASSESSMENT:

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

NASA [ ] / [ ] [ ] [ ] [ ] [ ] [ ] *
IOA [ ] 2 / [ ] [ ] [ ] [ ] [ ] [ X ]
COMPARE [ ] N / [ ] [ ] [ ] [ ] [ ] [ N ]

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

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

REMARKS:
RJDF2A F3 MANIFOLD LOGIC SWITCH 5 RE-ANALYZED BY IOA. SEE
ASSESSMENT IDS FRCS 11135X-11139X.

REPORT DATE 2/26/88 C-1067
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-1104  
NASA DATA: BASELINE [ ]
NASA FMEA #:  
NASA ID: [ ]

SUBSYSTEM: FRCS  
MDAC ID: 1104  
ITEM: RJDF2A F3 MANIFOLD LOGIC SWITCH OFF CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ N ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ N ] [ ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF2A F3 MANIFOLD LOGIC SWITCH 5 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11135X-11139X.

REPORT DATE 2/26/88  C-1068
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1105
NASA FMEA #: FRCS

SUBSYSTEM: MDAC ID: FRCS 1105
ITEM: RJDF2A F3 MANIFOLD LOGIC SWITCH OFF CONTACTS 3, 4

LEAD ANALYST: 

ASSESSMENT: 

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2A F3 MANIFOLD LOGIC SWITCH 5 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11135X-11139X.
ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1106 
NASA FMEA #: 
NASA DATA: 
BASELINE [ ] 
NEW [ ] 
SUBSYSTEM: FRCS 
MDAC ID: 1106 
ITEM: RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 
LEAD ANALYST: 
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11150X-11154X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ] NASA DATA: [ ]
ASSESSMENT ID: FRCS-1107 NASA FMEA #: [ ]
NASA FMEA #: [ ] BASELINE [ ] NEW [ ]
SUBSYSTEM: FRCS MDAC ID: 1107
ITEM: RJDF2B F4/F5 MANIFOLD DRIVER SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ ] / [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 / 2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N / N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ] INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11150X-11154X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1108 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1108
ITEM: RJDF2B F4/F5 MANIFOLD DRIVER ON SWITCH CONTACTS 1, 2
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11150X-11154X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1109
NASA FMEA #: NASA DATA:
SUBSYSTEM: FRCS NASA FMEA #: NASA DATA:
MDAC ID: 1109 BASELINE [ ]
ITEM: RJDF2B F4/F5 MANIFOLD DRIVER ON SWITCH CONTACTS NEW [ ]
1, 2
LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11150X-11154X.

REPORT DATE 2/26/88 C-1073
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:**

**NASA DATA:**

**ASSESSMENT ID:** FRCS-1110

**NASA FMEA #:**

**BASELINE [ ]**

**NEW [ ]**

**SUBSYSTEM:** FRCS

**MDAC ID:** 1110

**ITEM:** RJDF2B F4/F5 MANIFOLD DRIVER OFF SWITCH CONTACTS 3, 4

**LEAD ANALYST:**

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ ] 3 / [3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ ] N / [N]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

**REMARKS:**

RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11150X-11154X.

REPORT DATE 2/26/88 C-1074
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASP DATA:
ASSESSMENT ID: FRCS-1111 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1111
ITEM: RJDF2B F4/F5 MANIFOLD DRIVER OFF SWITCH CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 / 3]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N / N]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]

Inadequate [ ]

REMARKS:

RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11150X-11154X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1112 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1112
ITEM: RJDF2B F4/F5 MANIFOLD DRIVER ON SWITCH CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA [ ] / [ ] | [ ] | [ ] | [ ] *
| IOA [ ] 3 / [2R ] | [ P ] | [ P ] | [ P ] |
| COMPARE [ ] N / [N ] | [ N ] | [ N ] | [ N ] |

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

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

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11150X-11154X.

REPORT DATE 2/26/88 C-1076
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1113 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1113
ITEM: RJDF2B F4/F5 MANIFOLD DRIVER ON SWITCH CONTACTS 5, 6

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11150X-11154X.

REPORT DATE 2/26/88 C-1077
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [Empty]
ASSESSMENT ID: FRCS-1114
NASA FMEA #: [Empty]

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1114
ITEM: RJDF2B F4/F5 MANIFOLD DRIVER OFF SWITCH CONTACTS 7, 8
LEAD ANALYST: [Empty]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11150X-11154X.

REPORT DATE 2/26/88 C-1078
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-1115  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]

SUBSYSTEM:  FRCS  
MDAC ID:  1115  
ITEM:  RJDF2B F4/F5 MANIFOLD DRIVER OFF SWITCH CONTACTS 7, 8

LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]  [ ]

IOA [ 3 /2R ]  [ P ]  [ P ]  [ P ]  [ P ]  [ ]

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

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

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

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 13 RE-ANALYZED BY IOA.  SEE ASSESSMENT IDS FRCS 11150X-11154X.

REPORT DATE 2/26/88  
C-1079
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-1116  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM:  FRCS  
MDAC ID:  1116  
ITEM:  RJDF2B F4/F5 MANIFOLD LOGIC SWITCH  

LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FLIGHT</th>
<th>HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF2B F4/F5 MANIFOLD LOGIC RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11145X-11149X.

REPORT DATE 2/26/88 C-1080
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1117
NASA FMEA #: NASA DATA:

NASA DATA: BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1117
ITEM: RJDF2B F4/F5 MANIFOLD LOGIC SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| NASA | [ / ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| IOA  | [ 2 /2] | [ ] | [ ] | [ ] | [ ] | [ X ] |
| COMPARE | [ N /N ] | [ ] | [ ] | [ ] | [ ] | [ N ] |

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

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

REMARKS:
RJDF2B F4/F5 MANIFOLD LOGIC RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11145X-11149X.

REPORT DATE 2/26/88 C-1081
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASM DATA:
ASSESSMENT ID: FCRS-1118 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FCRS NASA \\
MDAC ID: 1118 [ ]/2R
ITEM: RJDF2B F4/F5 MANIFOLD LOGIC SWITCH ON CONTACTS
1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>[ ] / [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>[ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>[ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD LOGIC RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FCRS 11145X-11149X.

REPORT DATE 2/26/88 C-1082
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1119
NASA FMEA #: BASELINE [ ]
MDAC ID: 1119 NEW [ ]
ITEM: RJDF2B F4/F5 MANIFOLD LOGIC SWITCH ON CONTACTS
1, 2
LEAD ANALYST: ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD LOGIC RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11145X-11149X.

REPORT DATE 2/26/88 C-1083
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1120 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1120
ITEM: RJDF2B F4/F5 MANIFOLD LOGIC SWITCH OFF CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD LOGIC RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11145X-11149X.

REPORT DATE 2/26/88 C-1084
APPENDIX C
ASSessment worksheet

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1121
NASA FMEA #: [ ]

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1121
ITEM: RJDF2B F4/F5 MANIFOLD LOGIC SWITCH OFF CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD LOGIC RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11145X-11149X.

REPORT DATE 2/26/88 C-1085
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-1122 
NASA FMEA #:  
SUBSYSTEM: FRCS 
MDAC ID: 1122 
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER SWITCH 
LEAD ANALYST:  
ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)  

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)  

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:  
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11155X-11159X.

REPORT DATE 2/26/88  C-1086
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1123
NASA FMEA #: 

NASA DATA: 
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1123
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER SWITCH

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1087
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1124
NASA FMEA #: [ ]

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1124
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER ON SWITCH
CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ ] 2 / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ ] N / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1088
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:                       NASA DATA:
ASSESSMENT ID:  FRCS-1125             BASELINE [ ]
NASA FMEA #:                               NEW [ ]
SUBSYSTEM:  FRCS                      NASA DATA:
MDAC ID:  1125                     BASELINE [ ]
ITEM:  RJDF2B L5/F5/R5 MANIFOLD DRIVER ON SWITCH
       CONTACTS 1, 2 OR 5, 6
LEAD ANALYST:                           NASA IOA
ASSESSMENT:                             [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1089
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA: NASA FMEA #:
ASSESSMENT ID: FRCS-1126 BASELINE [ ]
NASA MDAC ID:
FMEA #:
SUBSYSTEM: FRCS NEW [ ]
MDAC ID: 1126
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER OFF SWITCH
CONTACTS 3, 4
LEAD ANALYST:

ASSESSMENT:

<p>| CRITICALITY | REDUNDANCY SCREENS | CIL |</p>
<table>
<thead>
<tr>
<th>HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N/N ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1090
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1127 BASELINE [ ]
NASA FMEA #: FRCS-1127 NEW [ ]
NASA FME A #: FRCS

SUBSYSTEM: FRCS
MDAC ID: 1127
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER OFF SWITCH
CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<p>| CRITICALITY | REDUNDANCY SCREENS | CIL |</p>
<table>
<thead>
<tr>
<th>HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1091
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1128 
NASA FMEA #: 
NASA DATA: 
BASELINE [ ] 
NEW [ ]

SUBSYSTEM: FRCS 
MDAC ID: 1128 
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER ON SWITCH 
CONTACTS 5, 6 

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1092
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1129 BASELINE [ ]
NASA FMEA #: NASA FRCS-1129 NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1129
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER ON SWITCH
CONTACTS 5, 6
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1093
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1130 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1130
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER OFF SWITCH
CONTACTS 3, 4 OR 7, 8

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC A B C</td>
<td>ITEM</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1094
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1131 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1131
ITEM: RJDF2B L5/F5/R5 MANIFOLD DRIVER OFF SWITCH
CONTACTS 3, 4 OR 7, 8

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] [ ] [ ] *

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

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]

Inadequate [ ]

REMARKS:

RJDF2B F4/F5 MANIFOLD DRIVER SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11155X-11159X.

REPORT DATE 2/26/88 C-1095
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-1132
NASA FMEA #: NONE
SUBSYSTEM: FRCS
MDAC ID: 1132
ITEM: RJDF1B MANIFOLD F1 TRICKLE TEST
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
The three RJDF TRICKLE TESTS IMPLEMENT A SOFTWARE ROUTINE TO VERIFY LOGIC OUTPUTS FROM VARYING A AND B PULSE COMMAND INPUTS. ASSOCIATED FAILURES HAVE BEEN CONSIDERED IN THE HARDWARE/EPD&C ANALYSIS AND ASSESSMENT.

REPORT DATE 2/26/88 C-1096
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1133
NASA FMEA #: NONE
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1133
ITEM: RJDF1A MANIFOLD F2 TRICKLE TEST

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPAR</td>
<td>[ N/N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THE THREE RJDF TRICKLE TESTS IMPLEMENT A SOFTWARE ROUTINE TO VERIFY LOGIC OUTPUTS FROM VARYING A AND B PULSE COMMAND INPUTS. ASSOCIATED FAILURES HAVE BEEN CONSIDERED IN THE HARDWARE/EPD&C ANALYSIS AND ASSESSMENT.

REPORT DATE 2/26/88 C-1097
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1134
NASA FMEA #: NONE
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1134
ITEM: RJDF2A MANIFOLD F3 TRICKLE TEST

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

THE THREE RJDF TRICKLE TESTS IMPLEMENT A SOFTWARE ROUTINE TO VERIFY LOGIC OUTPUTS FROM VARYING A AND B PULSE COMMAND INPUTS. ASSOCIATED FAILURES HAVE BEEN CONSIDERED IN THE HARDWARE/EPD&C ANALYSIS AND ASSESSMENT.

REPORT DATE 2/26/88   C-1098
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1135
NASA FMEA #: NONE

SUBSYSTEM: FRCS
MDAC ID: 1135
ITEM: RJDF2B MANIFOLD F4, F5 TRICKLE TEST

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td></td>
<td>NASA [ / ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td></td>
<td>IOA [ 3 /3 ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ] [ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THE THREE RJDF TRICKLE TESTS IMPLEMENT A SOFTWARE ROUTINE TO VERIFY LOGIC OUTPUTS FROM VARYING A AND B PULSE COMMAND INPUTS. ASSOCIATED FAILURES HAVE BEEN CONSIDERED IN THE HARDWARE/EPD&C ANALYSIS AND ASSESSMENT.

REPORT DATE 2/26/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-1136  
NASA FMEA #: 03-2F-121314 -2

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1136
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F1D, F3D, F2D, F4D

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88  
C-1100
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1137
NASA FMEA #: 03-2F-121314 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1137
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F1D, F3D, F2D, F4D

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3/1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3/2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88  C-1101
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1138
NASA FMEA #: 03-2F-121314 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1138
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F1F, F2F, F3F

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] | *
| IOA [ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ] |

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

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

* CIL RETENTION RATIONALE: (If applicable)

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1102
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1139
NASA FMEA #: 03-2F-121314 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1139
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F1F, F2F, F3F

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1140
NASA FMEA #: 03-2F-121314 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1140
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F1L, F3L, F2R, F4R

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
</tbody>
</table>
|             | A          | B | C | [ ] | *

| NASA [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] |
| IOA [ 3 /2R ]  | [ P ] | [ P ] | [ P ] | [ ] |
| COMPARE [ /N ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88
C-1104
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1141
NASA FMEA #: 03-2F-121314 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1141
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F1L, F3L, F2R, F4R

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /1R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE [ /N]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1142
NASA FMEA #: 03-2F-121314 -2

SUBSYSTEM: FRCS
MDAC ID: 1142
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F1U, F2U, F3U

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1143
NASA FMEA #: 03-2F-121314 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1143
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F1U, F2U, F3U

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1107
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1144
NASA FMEA #: NONE

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: MDAC
ID: 1144
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F5L, F5R

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>ITEM A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>NASA [ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ F ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADoQUATE [ ]
INADEQUATE [ ]

REMARKS:

VERNIER THRUSTERS CHAMBER PRESSURE SENSORS NOT ADDRESSED BY A FMEA. IOA RECOMMENDS THEIR INCLUSION INTO A FMEA. NOTE: PRIMARY SENSORS CONTAINED IN 03-2F-121314-2 FMEA.

SUBSYSTEM MANAGER STATED THAT THE SENSORS WERE PART OF THE VERNIER THRUSTER ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THE FAILURE BE INCORPORATED INTO A FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1145
NASA FMEA #: NONE

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1145
ITEM: CHAMBER PRESSURE (Pc) SENSOR, THRUSTERS F5L, F5R

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ F ] [ P ] [ A ]
(ADD/DELETE)

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

REMARKS:
VERNIER THRUSTERS CHAMBER PRESSURE SENSORS NOT ADDRESSED BY A FMEA. IOA RECOMMENDS THEIR INCLUSION INTO A FMEA. NOTE:
PRIMARY SENSORS CONTAINED IN 03-2F-121314-1 FMEA.

SUBSYSTEM MANAGER STATED THAT THE SENSORS WERE PART OF THE VERNIER THRUSTER ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THE FAILURE BE INCORPORATED INTO A FMEA.

REPORT DATE 2/26/88 C-1109
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1146
NASA FMEA #: 03-2F-121315 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1146
ITEM: OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F1D, F2D, F3D, F4D

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1110
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1147
NASA FMEA #: 03-2F-121315 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1147
ITEM: OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F1D, F2D, F3D, F4D

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1111
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1148
NASA FMEA #: 03-2F-121315 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1148
ITEM: OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F1F, F2F, F3F

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1112
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1149
NASA FMEA #: 03-2F-121315 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1149
ITEM: OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F1F, F2F, F3F

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/Func</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1113
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1150
NASA FMEA #: 03-2F-121315 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1150
ITEM: OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F1L, F3L, F2R, F4R

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1151
NASA FMEA #: 03-2F-121315 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1151
ITEM: OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F1L, F3L, F2R, F4R

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| NASA | [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] * |
| IOA  | [ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ] |

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

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

(ADD/DELETE)

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1115
## APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-1152  
**NASA FMEA #:** 03-2F-121315 -2  
**NASA DATA:**  
- **BASELINE** [ ]  
- **NEW** [ X ]  

**SUBSYSTEM:** FRCS  
**MDAC ID:** 1152  
**ITEM:** OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F1U, F2U, F3U  
**LEAD ANALYST:** D. HARTMAN  

### ASSESSMENT:

**CRITICALITY**  
**FLIGHT**  
**HDW/FUNC**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

### RECOMMENDATIONS:
(If different from NASA)

| [ ] | [ ] | [ ] | [ ] | [ ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

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

**REMARKS:**

IOA AGREES WITH NASA FMEA.

---

**REPORT DATE** 2/26/88  
**C-1116**
### APPENDIX C  
**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-1153  
**NASA FMEA #:** 03-2F-121315 -1  

**NASA DATA:**  
BASELINE [ ]  
NEW [ X ]

**SUBSYSTEM:** FRCS  
**MDAC ID:** 1153  
**ITEM:** OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F1U, F2U, F3U  

**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

*(ADD/DELETE)*


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

**REMARKS:**  
IOA AGREES WITH NASA FMEA.

**REPORT DATE 2/26/88**  
**C-1117**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1154
NASA FMEA #: NONE

SUBSYSTEM: FRCS
MDAC ID: 1154
ITEM: OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F5L, F5R

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ]
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *

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

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ F ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARS:
VERNIER THRUSTERS INJECTOR TEMPERATURE SENSORS NOT ADDRESSED BY A FMEA. IOA RECOMMENDS THEIR INCLUSION INTO A FMEA. NOTE:
PRIMARY SENSORS CONTAINED IN 03-2F-121315-2 FMEA.

SUBSYSTEM MANAGER STATED THAT THE SENSORS WERE PART OF THE VERNIER THRUSTER ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THE FAILURE BE INCORPORATED INTO A FMEA.

REPORT DATE 2/26/88  C-1118
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1155
NASA FMEA #: NONE

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1155
ITEM: OX OR FU INJECTOR TEMP SENSOR, THRUSTERS F5L, F5R

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ F ] [ P ] [ A ] (ADD/DELETE)

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

REMARKS:
VERNIER THRUSTERS INJECTOR TEMPERATURE SENSORS NOT ADDRESSED BY A FMEA. IOA RECOMMENDS THEIR INCLUSION INTO A FMEA. NOTE: PRIMARY SENSORS CONTAINED IN 03-2F-121315-1 FMEA.

SUBSYSTEM MANAGER STATED THAT THE SENSORS WERE PART OF THE VERNIER THRUSTER ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THE FAILURE BE INCORPORATED INTO A FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1156
NASA FMEA #: 05-6KF-2215 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1156
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1120
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1157
NASA FMEA #: 05-6KF-2215 -2
SUBSYSTEM: FRCS
MDAC ID: 1157
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA        | [ 3 /3 ] | [ ]  | [ ]  | [ ]  *
| IOA         | [ 3 /2R ] | [ P ] | [ P ] | [ P ] |
| COMPARE     | [ /N ]   | [ N ]  | [ N ]  | [ N ] |

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]

Inadequate [ ]

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1121
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1158
NASA FMEA #: 05-6KF-2215 -1
SUBSYSTEM: FRCS
MDAC ID: 1158
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ / ] [ ] [ ] [ ] [ ]

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1122
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1159
NASA FMEA #: 05-6KF-2215 -2

SUBSYSTEM: FRCS
MDAC ID: 1159
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ] [ ] [ ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ] [ N ] [ N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88
C-1123
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1160
NASA FMEA #: 05-6KF-2215 -1

SUBSYSTEM: FRCS
MDAC ID: 1160
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REPORT DATE 2/26/88 C-1124
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1161
NASA FMEA #: 05-6KF-2215-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1161
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>NASA</td>
</tr>
<tr>
<td>IOA</td>
</tr>
<tr>
<td>COMPARE</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ] (ADD/DELETE)

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

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1162
NASA FMEA #: 05-6KF-2215 -1
SUBSYSTEM: FRCS
MDAC ID: 1162
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1126
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1163
NASA FMEA #: 05-6KF-2215 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1163
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1127
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-1164  
**NASA FMEA #:** 05-6KF-2215 -1

**SUBSYSTEM:** FRCS  
**MDAC ID:** 1164  
**ITEM:** DRIVER, HYBRID

**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

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

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

(ADD/DELETE)

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

ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**

NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1165
NASA FMEA #: 05-6KF-2215 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1165
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY
FLIGHT
HDW/FUNC A  B  C

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] * [ ]
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ]
(ADD/DELETE)

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

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1166
NASA FMEA #: 05-6KF-2215 -1
SUBSYSTEM: FRCS
MDAC ID: 1166
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1130
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1167
NASA FMEA #: 05-6KF-2215 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1167
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>NASA [ 3 /3 ]</th>
<th>[ ]</th>
<th>[ ]</th>
<th>[ ]</th>
<th>[ ]</th>
<th>[ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

|         | [ 3 /2R ] | [ P ]| [ P ]| [ P ]| [ ] | (ADD/DELETE) |

* CIL RETENTION RATIONALE: (If applicable)

<table>
<thead>
<tr>
<th></th>
<th>ADEQUATE [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INADEQUATE [ ]</td>
</tr>
</tbody>
</table>

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1168
NASA FMEA #: 05-6KF-2215 -I

SUBSYSTEM: FRCS
MDAC ID: 1168
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-1169  
NASA FMEA #: 05-6KF-2215 -2  
SUBSYSTEM: FRCS  
MDAC ID: 1169  
ITEM: DRIVER, HYBRID  
LEAD ANALYST: D. HARTMAN  

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3  ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ] (ADD/DELETE)

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

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88  C-1133
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1170
NASA FMEA #: 05-6KF-2215 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1170
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88
C-1134
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1171
NASA FMEA #: 05-6KF-2215-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1171
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1135
APPENDIX C
ASSessment Worksheet

Assessment Date: 1/29/88
Assessment ID: FRCS-1172
NASA FMEA #: 05-6KF-2215 -1

Subsystem: FRCS
MDAC ID: 1172
Item: DRIVER, HYBRID

Lead Analyst: D. Hartman

Assessment:

<table>
<thead>
<tr>
<th>Criticality</th>
<th>Redundancy Screens</th>
<th>CIL Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight HDW(Func)</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>Compare</td>
<td>/</td>
<td></td>
</tr>
</tbody>
</table>

Recommendations: (If different from NASA)

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

* CIL Retention Rationale: (If applicable)

Adequate [ ]
Inadequate [ ]

Remarks:

No Differences.

Report Date 2/26/88 C-1136
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1173
NASA FMEA #: 05-6KF-2215-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1173
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ]
(ADD/DELETE)

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

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1137
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1174
NASA FMEA #: 05-6KF-2215 -1

SUBSYSTEM: FRCS
MDAC ID: 1174
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1175
NASA FMEA #: 05-6KF-2215 -2

NASA DATA: BASELINE [ ] NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1175
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ]
(ADD/DELETE)

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

REMARKS:
INABILITY TO REMOVE HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1139
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1176
NASA FMEA #: 05-6KF-2215 -1

SUBSYSTEM: FRCS
MDAC ID: 1176
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1177
NASA FMEA #: 05-6KF-2215-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1177
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA  [ 3 /3 ]</td>
<td>[   ]</td>
</tr>
<tr>
<td>IOA   [ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [   ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1141
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1178
NASA FMEA #: 05-6KF-2215 -1

SUBSYSTEM: FRCS
MDAC ID: 1178
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[3/2R]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3/2R]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NO DIFFERENCES.

REPORT DATE 2/26/88  C-1142
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1179
NASA FMEA #: 05-6KF-2215 -2
SUBSYSTEM: FRCS
MDAC ID: 1179
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
INABILITY TO TURN HEATER OFF MAY CAUSE LOSS OF MISSION OBJECTIVES DUE TO ORBITER POINTING DEEP SPACE FOR COOLING.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1143
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1180
NASA FMEA #: 05-6KF-2013 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1180
ITEM: FUSE, 20A

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

* CIL RETENTION RATIONALE: (If applicable)

<table>
<thead>
<tr>
<th>ADEQUATE</th>
<th>INADEQUATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1144
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT ID: FRCS-1181
MDAC ID: 1181
ITEM: FUSE, 20A

LEAD ANALYST: D. HARTMAN

SUBSYSTEM: FRCS

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1182
NASA FMEA #: 05-6KF-2013 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1182
ITEM: FUSE, 20A

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1183
NASA FMEA #: 05-6KF-2013 -1

SUBSYSTEM: FRCS
MDAC ID: 1183
ITEM: FUSE, 20A

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPAR [ / ] [ ] [ ] [ ] [ ] [ ]

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88    C-1147
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1184
NASA FMEA #: 05-6KF-2013 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1184
ITEM: FUSE, 20A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1148
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1185
NASA FMEA #: 05-6KF-2013 -1
SUBSYSTEM: FRCS
MDAC ID: 1185
ITEM: FUSE, 20A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1149
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1186
NASA FMEA #: 05-6KF-2013 -1
SUBSYSTEM: FRCS
MDAC ID: 1186
ITEM: FUSE, 20A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA</td>
<td>3 /2R</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>3 /2R</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>/</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

NO DIFFERENCES.

REPORT DATE 2/26/88 C-1150
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1187
NASA FMEA #: 05-6KF-2013 -1

ASSESSMENT ID: FRCS
MDAC ID: 1187
ITEM: FUSE, 20A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [3 /2R]</td>
<td>[P] [P] [P]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [3 /2R]</td>
<td>[P] [P] [P]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1188
NASA FMEA #: 05-6KF-2012 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1188
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES. NOTE: SPACE SHUTTLE SYSTEMS HANDBOOK SHOWS 3 AMP FUSES BUT SCHEMATIC VS70-942099 SHOWS 1 AMP FUSES.
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1189
NASA FMEA #: 05-6KF-2012 -1

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1189
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:  
NO DIFFERENCES. NOTE: SPACE SHUTTLE SYSTEMS HANDBOOK SHOWS 3 AMP FUSES BUT SCHEMATIC VS70-942099 SHOWS 1 AMP FUSES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1190
NASA FMEA #: 05-6KF-2012 -1
SUBSYSTEM: FRCS
MDAC ID: 1190
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>NASA [ 3 /2R ]</td>
<td>[    ]</td>
</tr>
<tr>
<td></td>
<td>IOA [ 3 /2R ]</td>
<td>[    ]</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>/</td>
<td>[    ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
NO DIFFERENCES. NOTE: SPACE SHUTTLE SYSTEMS HANDBOOK SHOWS 3 AMP FUSES BUT SCHEMATIC VS70-942099 SHOWS 1 AMP FUSES.
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-1191  
NASA FMEA #: 05-6KF-2012 -1  
SUBSYSTEM: FRCS  
MDAC ID: 1191  
ITEM: FUSE, 1A  
LEAD ANALYST: D. HARTMAN  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES. NOTE: SPACE SHUTTLE SYSTEMS HANDBOOK SHOWS 3 AMP FUSES BUT SCHEMATIC VS70-942099 SHOWS 1 AMP FUSES.
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**NASA DATA:**  
**ASSESSMENT ID:** FRCS-1192  
**NASA FMEA #:** 05-6KF-2011 -1  
**SUBSYSTEM:** FRCS  
**MDAC ID:** 1192  
**ITEM:** FUSE, 7.5A  
**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[  ]</td>
<td>[  ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

*(ADD/DELETE)*

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

| ADEQUATE [ ] |
| INADEQUATE [ ] |

**REMARKS:**

IOA AGREES WITH NASA FMEA.

---

**REPORT DATE 2/26/88 C-1156**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1193
NASA FMEA #: 05-6KF-2011 -1
NASA DATA: BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 1193
ITEM: FUSE, 7.5A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY FLIGHT HDW/FUNC

REDUNDANCY SCREENS A B C

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ X ]*

IOA [ 2 /2 ] [ ] [ ] [ ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1157
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1194
NASA FMEA #: 05-6KF-2011 -1

SUBSYSTEM: FRCS
MDAC ID: 1194
ITEM: FUSE, 7.5A

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A B C</td>
<td>ITEM</td>
</tr>
<tr>
<td>NASA [3/2R]</td>
<td>[P][P][P]</td>
<td></td>
</tr>
<tr>
<td>IOA [2/2]</td>
<td>[ ][ ][ ]</td>
<td>[X]**</td>
</tr>
<tr>
<td>COMPARE [N/N]</td>
<td>[N][N][N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1158
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1195
NASA FMEA #: 05-6KF-2011A-I

SUBSYSTEM: FRCS
MDAC ID: 1195
ITEM: FUSE, 7.5A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

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

(REM. (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES. NOTE: THE 7.5 AMP FUSE LISTED ABOVE IS INCORRECT. IT SHOULD BE A 5 AMP FUSE.

REPORT DATE 2/26/88  C-1159
APPENDIX C  
ASSESSMENT WORKSHEET  

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-1196  
NASA FMEA #: 05-6KF-2010 -1  
SUBSYSTEM: FRCS  
MDAC ID: 1196  
ITEM: FUSE, 7.5A  
LEAD ANALYST: D. HARTMAN  

LEAD ANALYST: D. HARTMAN  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:  
NO DIFFERENCES. NOTE: THE 7.5 AMP FUSE LISTED ABOVE IS INCORRECT. IT SHOULD BE A 5 AMP FUSE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
BASELINE [    ]
NEW [ X ]

ASSESSMENT ID: FRCS-1197

NASA FMEA #: 03-2F-103340 -2

SUBSYSTEM: FRCS
MDAC ID: 1197
ITEM: HEATER 90W, A & B OX LWR HTR PNL 3

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[    ]</td>
<td>[    ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [    ]
INADEQUATE [    ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1198
NASA FMEA #: 03-2F-103340 -2
SUBSYSTEM: FRCS
MDAC ID: 1198
ITEM: HEATER 90W, A & B OX LWR HTR PNL 3
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1162
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1199
NASA FMEA #: 03-2F-103340 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1199
ITEM: HEATER 90W, A & B OX LWR HTR PNL 1

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88   C-1163
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1200
NASA FMEA #: 03-2F-103340 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1200
ITEM: HEATER 90W, A & B OX LWR HTR PNL 1

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA [ 3 /2R ] | [ P | [ P | [ P ] | [ ] *
| IOA [ 3 /2R ] | [ P | [ P | [ P ] | [ ] |
| COMPARE [ / ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1164
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1201
NASA FMEA #: 03-2F-10340 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1201
ITEM: HEATER 90W, A & B OX FWD HTR PNL 4

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1165
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1202
NASA FMEA #: 03-2F-103340 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1202
ITEM: HEATER 90W, A & B OX FWD HTR PNL 4

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1166
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1203
NASA FMEA #: 03-2F-103340 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1203
ITEM: HEATER 90W, A & B OX LWR HTR PNL 2

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3/2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [3/2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1167
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1204
NASA FMEA #: 03-2F-103340 -2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1204
ITEM: HEATER 90W, A & B OX LWR HTR PNL 2

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1205
NASA FMEA #: 03-2F-103340 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1205
ITEM: HEATER 90W, A & B FU FWD HTR PNL 5

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1206
NASA FMEA #: 03-2F-103340 -2

SUBSYSTEM: FRCS
MDAC ID: 1206
ITEM: HEATER 90W, A & B FU FWD HTR PNL 5

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>NASA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [3 /2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ]

(RECOMMENDATIONS FOR ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1170
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1207
NASA FMEA #: 03-2F-103340 -2

SUBSYSTEM: FRCS
MDAC ID: 1207
ITEM: HEATER 90W, A & B OX LWR HTR PNL 6

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1208
NASA FMEA #: 03-2F-103340 -2

ASSESSMENT ID: FRCS-1208
NASA FMEA #: 03-2F-103340 -2

SUBSYSTEM: FRCS
MDAC ID: 1208
ITEM: HEATER 90W, A & B OX LWR HTR PNL 6

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1172
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA:
ASSESSMENT ID: FRCS-1209  BASELINE [ ]
NASA FMEA #: 03-2F-121316 -1  NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1209
ITEM: HEATER 20W, THRUSTER, PRIMARY, -X AXIS

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[3/2R]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3/2R]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

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

(AADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1210
NASA FMEA #: 03-2F-121316 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1210
ITEM: HEATER 20W, THRUSTER, PRIMARY, -X AXIS

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC A B C</td>
<td>ITEM</td>
</tr>
<tr>
<td>NASCAR</td>
<td>[ 3 /3 ] [ ] [ ] [ ] [ ] [ ] *</td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ] [ P ] [ P ] [ P ] [ ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ] [ N ] [ N ] [ N ] [ ]</td>
<td></td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1174
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1211
NASA FMEA #: 03-2F-121316 -1

SUBSYSTEM: FRCS
MDAC ID: 1211
ITEM: HEATER 20W, THRUSTER, PRIMARY, Y AXIS

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1175
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1212
NASA FMEA #: 03-2F-121316 -2
ASSESSMENT ID: FRCS-1212
NASA FMEA #: 03-2F-121316 -2
SUBSYSTEM: FRCS
MDAC ID: 1212
ITEM: HEATER 20W, THRUSTER, PRIMARY, Y AXIS
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A B C</td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ] [ P ] [ P ] [ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ] [ N ] [ N ] [ N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1176
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1213
NASA FMEA #: 03-2F-121316 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1213
ITEM: HEATER 20W, THRUSTER, PRIMARY, Z AXIS

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARISON [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88  C-1177
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1214
NASA FMEA #: 03-2F-121316 -2

SUBSYSTEM: FRCS
MDAC ID: 1214
ITEM: HEATER 20W, THRUSTER, PRIMARY, Z AXIS

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| NASA | [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] | * |
| IOA  | [ 3 /2R ] | [ P ] | [ P ] | [ P ] | | |

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1215
NASA FMEA #: 03-2F-121317 -I

SUBSYSTEM: FRCS
MDAC ID: 1215
ITEM: HEATER 10W, THRUSTER, VERNIER, ALL AXES
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1216
NASA FMEA #: 03-2F-121317 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1216
ITEM: HEATER 10W, THRUSTER, VERNIER, ALL AXES

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1217
NASA FMEA #: 05-6KF-2131 -1
SUBSYSTEM: FRCS
MDAC ID: 1217
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1217
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-1218
NASA FMEA #: 05-6KF-2131 -2
SUBSYSTEM: FRCS
MDAC ID: 1218
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88  C-1182
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1219
NASA FMEA #: 05-6KF-2131 -1

SUBSYSTEM: FRCS
MDAC ID: 1219
ITEM: RELAY

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1183
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1220
NASA FMEA #: 05-6KF-2131 -2
SUBSYSTEM: FRCS
MDAC ID: 1220
ITEM: RELAY
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1221
NASA FMEA #: 05-6KF-2101 -1

NASA DATA:
BASELINE []
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1221
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

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

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

REMARKS:
NO DIFFERENCES.
ASSESSMENT DATE: 1/29/88

ASSESSMENT ID: FRCS-1222

NASA FMEA #: 05-6KF-2101 -2

SUBSYSTEM: FRCS

MDAC ID: 1222

ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY</th>
<th>SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NO DIFFERENCES.

REPORT DATE 2/26/88   C-1186
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1223
NASA FMEA #: 05-6KF-2101 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1223
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3/2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3/2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1187
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-1224  
**NASA FMEA #:** 05-6KF-2101 -2  
**SUBSYSTEM:** FRCS  
**MDAC ID:** 1224  
**ITEM:** RESISTOR, 1.2K 2W  
**LEAD ANALYST:** D. HARTMAN

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

- **ASSESSMENT:** CRITICALITY REDUNDANCY SCREENS  
  - HDW/FUNC  
  - FLIGHT

<table>
<thead>
<tr>
<th>NASA</th>
<th>IOA</th>
<th>COMPARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ 3 /3 ]</td>
<td>[ 3 /3 ]</td>
<td>[ / ]</td>
</tr>
</tbody>
</table>

**REDUNDANCY SCREENS**  
- A  
- B  
- C

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

**CIL ITEM**  
* [ ]

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

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

**REMARKS:**  
NO DIFFERENCES.

---

REPORT DATE 2/26/88  
C-1188
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1225
NASA FMEA #: 05-6KF-2100 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1225
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1189
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1226
NASA FMEA #: 05-6KF-2100 -1
SUBSYSTEM: FRCS
MDAC ID: 1226
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY

FLIGHT
HDW/FUNC
A
B
C

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88   C-1190
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1227
NASA FMEA #: NONE
SUBSYSTEM: FRCS
MDAC ID: 1227
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO NASA FMEA FOR THIS RESISTOR. CIRCUIT IS NOT WIRED ON OTHER SIDE OF RESISTOR.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1228
NASA FMEA #: NONE
SUBSYSTEM: FRCS
MDAC ID: 1228
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[   ]</td>
<td>[   ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[   ] [   ] [   ] [   ] [   ] [   ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [ ]

REMARKS:
NO NASA FMEA FOR THIS RESISTOR. CIRCUIT IS NOT WIRED ON OTHER SIDE OF RESISTOR.
**APPENDIX C**

**ASSESSMENT WORKSHEET**

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-1229  
**NASA FMEA #:** NONE

**SUBSYSTEM:** FRCS  
**MDAC ID:** 1229  
**ITEM:** RESISTOR, 1.2K 2W

**LEAD ANALYST:** D. HARTMAN

**NASA DATA:**

<table>
<thead>
<tr>
<th>BASELINE</th>
<th>NEW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ITEM:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

**REMARKS:**

NO NASA FMEA FOR THIS RESISTOR. CIRCUIT IS NOT WIRED ON OTHER SIDE OF RESISTOR.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1230
NASA FMEA #: NONE

SUBSYSTEM: FRCS
MDAC ID: 1230
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY

<table>
<thead>
<tr>
<th>HDW/FUNC</th>
<th>FLIGHT</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NO NASA FMEA FOR THIS RESISTOR. CIRCUIT IS NOT WIRED ON OTHER SIDE OF RESISTOR.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1231
NASA FMEA #: 05-6KF-2101 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 1231
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-1232  
**NASA FMEA #:** 05-6KF-2101-2

**SUBSYSTEM:** FRCS  
**MDAC ID:** 1232  
**ITEM:** RESISTOR, 1.2K 2W

**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:***

<table>
<thead>
<tr>
<th>CRITICALLY REDUNDANCY</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FRNC</td>
<td>A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NASA</th>
<th>IOA</th>
<th>COMPARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[3/3]</td>
<td>[3/3]</td>
<td>[ / ]</td>
</tr>
</tbody>
</table>

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

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

**REMARKS:**  
NO DIFFERENCES.

**REPORT DATE 2/26/88 C-1196**
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1233
NASA FMEA #: 05-6KF-2100 -1

SUBSYSTEM: MDAC
ID: FRCS
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1234
NASA FMEA #: 05-6KF-2100 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1234
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1198
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1235
NASA FMEA #: 05-6KF-2101-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1235
ITEM: RESISTOR, 1.2K 2W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA | [ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ] | *
| IOA | [ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ] |
| COMPARE | [ / ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1236
NASA FMEA #: 05-6KF-2101 -2

SUBSYSTEM: FRCS
MDAC ID: 1236
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1200
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1237
NASA FMEA #: 05-6KF-2099 -1
SUBSYSTEM: FRCS
MDAC ID: 1237
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1238
NASA FMEA #: 05-6KF-2099-1

SUBSYSTEM: FRCS
MDAC ID: 1238
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3/3 ]</td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3/3 ]</td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1202
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1239
NASA FMEA #: 05-6KF-2099 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1239
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1203
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1240
NASA FMEA #: 05-6KF-2099 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1240
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1204
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1241
NASA FMEA #: 05-6KF-2099 -I
SUBSYSTEM: FRCS
MDAC ID: 1241
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1205
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1242
NASA FMEA #: 05-6KF-2099 -1
NASA DATA: BASELINE [ ] NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1242
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE.
IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88
(SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1206
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1243
NASA FMEA #: 05-6KF-2099 -1
NASA DATA: BASELINE [ ] NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 1243
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1207
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1244
NASA FMEA #: 05-6KF-2099 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1244
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<p>| CRITICALITY | REDUNDANCY SCREENS | CIL |</p>
<table>
<thead>
<tr>
<th>FLIGHT HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88 C-1208
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1245
NASA FMEA #: 05-6KF-2099 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1245
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY</th>
<th>SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC A B C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE [ / ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1209
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1246
NASA FMEA #: 05-6KF-2099 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1246
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:
A SHORT ACROSS A RLR TYPE RESISTOR IS NOT A CREDIBLE FAILURE. IOA RECOMMENDS REMOVAL OF THE "SHORT" FAILURE MODE FROM THIS FMEA.

ISSUE RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88 (SHORT FAILURE MODE TO BE REMOVED).

REPORT DATE 2/26/88    C-1210
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-1247
NASA FMEA #: NASA DATA:
SUBSYSTEM: FRCS  BASELINE [
MDAC ID: 1247 NEW [
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

| NASA        | /    | /   | [ ] | [ ] | [ ] | [ ] |
| IOA         | 3/2R | P   | P   | P   | [ ] |
| COMPARE     | N/N  | N   | N   | N   | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RCS/OMS FORWARD HEATER SWITCH S3 RE-ANALYZED BY IOA. SEE
ASSESSMENT IDS FRCS 11185X-11189X.

REPORT DATE 2/26/88 C-1211
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1248
NASA FMEA #: 
NASA DATA: 
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1248
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C [ ]</td>
<td></td>
</tr>
</tbody>
</table>

NASA [ ]
IOA [ 3 /2R ]
COMPARE [ N /N ]

RECOMMENDATIONS: (If different from NASA)

[ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RCS/OMS FORWARD HEATER SWITCH S3 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs FRCS 11185X-11189X.

REPORT DATE 2/26/88 C-1212
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:          NASA DATA:
ASSESSMENT ID:  FRCS-1249  BASELINE [ ]
NASA FMEA #:              NEW [ ]
SUBSYSTEM:  FRCS            NASA DATA:
MDAC ID:  1249                  BASELINE [ ]
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/Func</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| NASA  | [ / ]  | [ ]   | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | *       |
| IOA   | [ 3 /2R] | [ P]  | [ P]  | [ P]  | [ ]  |       |
| COMPARE| [ N /N ]| [ N ]  | [ N ]  | [ N ]  | [ ]  |       |

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
RCS/OMS FORWARD HEATER SWITCH S3 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS FRCS 11185X-11189X.

REPORT DATE 2/26/88 C-1213
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1250 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1250
ITEM: MANIFOLD 1, JETS HEATER CONTROL SWITCH
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
FORWARD MANIFOLD 1 JETS HEATER CONTROL SWITCH 14 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11160X-11164X.

REPORT DATE 2/26/88 C-1214
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1251 BASELINE [ ] 
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1251
ITEM: MANIFOLD 1, JETS HEATER CONTROL SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NASA</th>
<th>[ / ]</th>
<th>[ ]</th>
<th>[ ]</th>
<th>[ ] [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>[ 2/2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ] [ X ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ] [ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 1 JETS HEATER CONTROL SWITCH 14 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11160X-11164X.

REPORT DATE 2/26/88 C-1215
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1252 
NASA FMEA #: 
NASA DATA: 
BASELINE [ ] 
NEW [ ] 

SUBSYSTEM: FRCS 
MDAC ID: 1252 
ITEM: MANIFOLD 1, JETS HEATER CONTROL SWITCH ON CONTACTS 1, 2 

LEAD ANALYST: 

ASSESSMENT: 

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 / 2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N / N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA) 

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

* CIL RETENTION RATIONALE: (If applicable) 

ADEQUATE [ ] 
INADEQUATE [ ] 

REMARKS: 
FORWARD MANIFOLD 1 JETS HEATER CONTROL SWITCH 14 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11160X-11164X. 

REPORT DATE 2/26/88 C-1216
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-1253  
NASA FMEA #:  

NASA DATA:  
BASELINE [ ]  
NEW [ ]  

SUBSYSTEM: FRCS  
MDAC ID: 1253  
ITEM: MANIFOLD 1, JETS HEATER CONTROL SWITCH ON CONTACTS 1, 2  

LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:  
FORWARD MANIFOLD 1 JETS HEATER CONTROL SWITCH 14 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11160X-11164X.  

REPORT DATE 2/26/88 C-1217
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  NASA DATA:
ASSESSMENT ID:  FRCS-1254  BASELINE [  ]
NASA FMEA #:  NEW [  ]
SUBSYSTEM:  FRCS
MDAC ID:  1254
ITEM:  MANIFOLD 1, JETS HEATER CONTROL SWITCH OFF
CONTACTS 3, 4
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [  ]

INADEQUATE [  ]

REMARKS:
FORWARD MANIFOLD 1 JETS HEATER CONTROL SWITCH 14 RE-ANALYZED BY IOA.  SEE ASSESSMENT IDs 11160X-11164X.

REPORT DATE 2/26/88  C-1218
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-1255
NASA FMEA #: NASA DATA:
MDAC ID: 1255 BASELINE [ ]
ITEM: MANIFOLD 1, JETS HEATER CONTROL SWITCH OFF
CONTACTS 3, 4 NEW [ ]

LEAD ANALYST:
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ] / [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

NASA [ ] / [ ] [ ] [ ] [ ] [ ] *%

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 1 JETS HEATER CONTROL SWITCH 14 RE-ANALYZED BY
IOA. SEE ASSESSMENT IDS 11160X-11164X.

REPORT DATE 2/26/88 C-1219
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: FRCS-1256
ASSESSMENT ID: NASA FMEA #:
SUBSYSTEM: FRCS
MDAC ID: 1256
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 1

ASSESSMENT:

CRITICALITY
FLIGHT HDW/FUNC
A   B   C
NASA [ / ] [ ] [ ] [ ] [ ] [ ] *[ ]
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] [ ]
COMPARE [ N ] [ N ] [ N ] [ N ] [ ]

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 1 JETS HEATER CONTROL SWITCH 14 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11160X-11164X.

REPORT DATE 2/26/88 C-1220
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-1257  
SUBSYSTEM: FRCS  
MDAC ID: 1257  
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 1  
LEAD ANALYST:  
ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 1 JETS HEATER CONTROL SWITCH 14 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11160X-11164X.

REPORT DATE 2/26/88  
C-1221
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:   NASA DATA:  
ASSESSMENT ID:    FRCS-1258   BASELINE [ ]  
NASA FMEA #:    NEW [ ]  
SUBSYSTEM:    FRCS  
MDAC ID:    1258  
ITEM:    MANIFOLD 2, JETS HEATER CONTROL SWITCH  
LEAD ANALYST:  
ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:  FORWARD MANIFOLD 2 JETS HEATER CONTROL SWITCH 15 RE-ANALYZED BY IOA.  SEE ASSESSMENT IDs 11165X-11169X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1259 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1259
ITEM: MANIFOLD 2, JETS HEATER CONTROL SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] [ ]
IOA [ 2 /2 ] [ ] [ ] [ ] [ ] [ ] [ ]
COMPARE [ N /N ] [ ] [ ] [ ] [ ] [ N ]

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

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

REMARKS:
FORWARD MANIFOLD 2 JETS HEATER CONTROL SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11165X-11169X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1260
NASA FMEA #: 
NASA DATA: 
BASELINE [ ] 
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1260
ITEM: MANIFOLD 2, JETS HEATER CONTROL SWITCH ON CONTACTS 1, 2

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[2/2]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[N/N]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 2 JETS HEATER CONTROL SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11165X-11169X.

REPORT DATE 2/26/88 C-1224
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:                NASA DATA:
ASSESSMENT ID:  FRCS-1261        BASELINE [ ]
NASA FMEA #:               NEW [ ]
SUBSYSTEM:                FRCS
MDAC ID:                  1261
ITEM:                MANIFOLD 2, JETS HEATER CONTROL SWITCH ON
CONTACTS 1, 2
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
NASA [ ] / [ ] [ ] [ ] [ ] [ ] [ ]
IOA [ 3 /1R ] [ P ] [ F ] [ P ] [ X ]
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ N ]

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

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

REMARKS:
FORWARD MANIFOLD 2 JETS HEATER CONTROL SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11165X-11169X.

REPORT DATE 2/26/88 C-1225
**APPENDIX C**  
**ASSESSMENT WORKSHEET**

<table>
<thead>
<tr>
<th>ASSESSMENT DATE:</th>
<th>NASA DATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSESSMENT ID:</td>
<td>FRCS-1262</td>
</tr>
<tr>
<td>NASA FMEA #:</td>
<td></td>
</tr>
<tr>
<td>NASA DATA:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBSYSTEM:</th>
<th>FRCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDAC ID:</td>
<td>1262</td>
</tr>
<tr>
<td>ITEM:</td>
<td>MANIFOLD 2, JETS HEATER CONTROL SWITCH OFF</td>
</tr>
<tr>
<td>CONTACTS 3, 4</td>
<td></td>
</tr>
</tbody>
</table>

**LEAD ANALYST:**

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>insert text here</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

| insert text here |

* CIL RETENTION RATIONALE: (If applicable)

<table>
<thead>
<tr>
<th>ADEQUATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INADEQUATE</td>
</tr>
</tbody>
</table>

**REMARKS:**

FORWARD MANIFOLD 2 JETS HEATER CONTROL SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11165X-11169X.

**REPORT DATE 2/26/88**  
**C-1226**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:          NASA DATA:
ASSESSMENT ID:   FRCS-1263       BASELINE [ ]
NASA FMEA #:          NEW [ ]

SUBSYSTEM:        FRCS
MDAC ID:           1263
ITEM:              MANIFOLD 2, JETS HEATER CONTROL SWITCH OFF
CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
FORWARD MANIFOLD 2 JETS HEATER CONTROL SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11165X-11169X.

REPORT DATE 2/26/88       C-1227
APPENDIX C
ASSESSMENT WORKSHEET

<table>
<thead>
<tr>
<th>ASSESSMENT DATE:</th>
<th>NASA DATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSESSMENT ID:</td>
<td>FRCS-1264</td>
</tr>
<tr>
<td>NASA FMEA #:</td>
<td></td>
</tr>
<tr>
<td>NASA DATA:</td>
<td></td>
</tr>
<tr>
<td>BASELINE [ ]</td>
<td>NEW [ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBSYSTEM:</th>
<th>FRCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDAC ID:</td>
<td>1264</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ITEM:</th>
<th>SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 2</th>
</tr>
</thead>
</table>

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 2 JETS HEATER CONTROL SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11165X-11169X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1265
NASA FMEA #: [ ]
SUBSYSTEM: FRCS
MDAC ID: 1265
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 2
LEAD ANALYST: [ ]
ASSESSMENT:

| CRITICALITY | REDUNDANCY SCREENS | CIL |
| FLIGHT | HDW/FUNC | A | B | C | 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:
FORWARD MANIFOLD 2 JETS HEATER CONTROL SWITCH 15 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11165X-11169X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1266
NASA FMEA #: [ ]

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1266
ITEM: MANIFOLD 3, JETS HEATER CONTROL SWITCH

LEAD ANALYST: [ ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3 /1R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE [N /N]</td>
<td>[N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 3 JETS HEATER CONTROL SWITCH 16 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11170X-11174X.

REPORT DATE 2/26/88 C-1230
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1267 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 1267 BASELINE [ ]
ITEM: MANIFOLD 3, JETS HEATER CONTROL SWITCH NEW [ ]
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 3 JETS HEATER CONTROL SWITCH 16 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11170X-11174X.

REPORT DATE 2/26/88 C-1231
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1268 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1268
ITEM: MANIFOLD 3, JETS HEATER CONTROL SWITCH ON CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

- NASA [ / ] [ ] [ ] [ ] [ ] [ ] *
- IOA [ 2 /2 ] [ ] [ ] [ ] [ ] [ X ]
- COMPARE [ N /N ] [ ] [ ] [ ] [ ] [ N ]

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 3 JETS HEATER CONTROL SWITCH 16 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11170X-11174X.

REPORT DATE 2/26/88 C-1232
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1269 
NASA FMEA #: 

NASA DATA: 
BASELINE [ ] 
NEW [ ] 

SUBSYSTEM: FRCS 
MDAC ID: 1269 
ITEM: MANIFOLD 3, JETS HEATER CONTROL SWITCH ON CONTACTS 1, 2 

LEAD ANALYST: 

ASSESSMENT: 

<table>
<thead>
<tr>
<th>CRITICALLY REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA) 

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

* CIL RETENTION RATIONALE: (If applicable) 

ADEQUATE [ ] 
INADEQUATE [ ] 

REMARKS: 
FORWARD MANIFOLD 3 JETS HEATER CONTROL SWITCH 16 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11170X-11174X.

REPORT DATE 2/26/88 C-1233
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1270 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS NASA DATA:
MDAC ID: 1270 BASELINE [ ]
ITEM: MANIFOLD 3, JETS HEATER CONTROL SWITCH OFF NEW [ ]
CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 3 JETS HEATER CONTROL SWITCH 16 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11170X-11174X.

REPORT DATE 2/26/88 C-1234
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1271
NASA FMEA #: [ ]
NASA DATA: BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1271
ITEM: MANIFOLD 3, JETS HEATER CONTROL SWITCH OFF
CONTACTS 3, 4

LEAD ANALYST: [ ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:
FORWARD MANIFOLD 3 JETS HEATER CONTROL SWITCH 16 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11170X-11174X.

REPORT DATE 2/26/88 C-1235
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1272 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1272
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 3

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R]</td>
<td>[ P]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 3 JETS HEATER CONTROL SWITCH 16 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11170X-11174X.

REPORT DATE 2/26/88 C-1236
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1273 
NASA FMEA #: 

NASA DATA: 
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1273
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 3

LEAD ANALYST: 

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 3 JETS HEATER CONTROL SWITCH 16 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11170X-11174X.

REPORT DATE 2/26/88 C-1237
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1274 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1274
ITEM: MANIFOLD 4, JETS HEATER CONTROL SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[   ]</td>
<td>[  ] [  ] [  ] [  ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ] [ P ] [  ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ] [ N ] [  ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 4 JETS HEATER CONTROL SWITCH 17 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11175X-11179X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID: FRCS-1275  
NASA FMEA #: 
NASA DATA:  
BASELINE [ ]  
NEW [ ]

SUBSYSTEM: FRCS  
MDAC ID: 1275  
ITEM: MANIFOLD 4, JETS HEATER CONTROL SWITCH

LEAD ANALYST:  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[ ] / [ ] A [ ] [ ] B [ ] [ ] C [ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
</tbody>
</table>

NASA [ ] / [ ]  
IOA [ ] [ ] [ ] [ ] [ ]

COMPARE [ ] [ ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 4 JETS HEATER CONTROL SWITCH 17 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11175X-11179X.

REPORT DATE 2/26/88  
C-1239
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1276 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1276
ITEM: MANIFOLD 4, JETS HEATER CONTROL SWITCH ON
CONTACTS 1, 2

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ / ] [ ] [ ] [ ] [ ] [ ] [ ]

IOA [ 2 /2 ] [ ] [ ] [ ] [ ] [ ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 4 JETS HEATER CONTROL SWITCH 17 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11175X-11179X.

REPORT DATE 2/26/88 C-1240
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1277 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1277
ITEM: MANIFOLD 4, JETS HEATER CONTROL SWITCH ON CONTACTS 1, 2
LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 4 JETS HEATER CONTROL SWITCH 17 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11175X-11179X.

REPORT DATE 2/26/88 C-1241
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA:
ASSESSMENT ID: FRCS-1278 BASELINE [ ]
NASA FMEA #: NEW [ ]
SUBSYSTEM: FRCS
MDAC ID: 1278
ITEM: MANIFOLD 4, JETS HEATER CONTROL SWITCH OFF
CONTACTS 3, 4
LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 4 JETS HEATER CONTROL SWITCH 17 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11175X-11179X.

REPORT DATE 2/26/88 C-1242
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ ]
ASSESSMENT ID: FRCS-1279
NASA FMEA #: FRCS-1279
NASA DATA: BASELINE [ ] NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1279
ITEM: MANIFOLD 4, JETS HEATER CONTROL SWITCH OFF
CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 4 JETS HEATER CONTROL SWITCH 17 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11175X-11179X.

REPORT DATE 2/26/88 C-1243
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: NASA DATA: NASA FMEA #:
ASSESSMENT ID: FRCS-1280 BASELINE [ ]
NASA FMEA #: NEW [ ]

SUBSYSTEM: FRCS MDAC ID: 1280
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ ] /2R [ ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 4 JETS HEATER CONTROL SWITCH 17 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11175X-11179X.

REPORT DATE 2/26/88 C-1244
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
ASSESSMENT ID:  FRCS-1281  
NASA FMEA #:  
NASA DATA:  
BASELINE [ ]  
NEW [ ]

SUBSYSTEM:  FRCS  
MDAC ID:  1281  
ITEM:  SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 4

LEAD ANALYST:  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| NASA | [ / ] | [ ] | [ ] | [ ] | [ ] | [ * ] |
| IOA  | [ 2 /2] | [ ] | [ ] | [ ] | [ ] | [ X ] |
| COMPARE | [ N /N ] | [ ] | [ ] | [ ] | [ ] | [ N ] |

RECOMMENDATIONS:  (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 4 JETS HEATER CONTROL SWITCH 17 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11175-X-11179X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [Assessment Date]
ASSESSMENT ID: FRCS-1282
NASA FMEA #: [NASA FMEA Number]
NASA DATA: [NASA Data]
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1282
ITEM: MANIFOLD 5, JETS HEATER CONTROL SWITCH

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 5 JETS HEATER CONTROL SWITCH 18 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11180X-11184X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:       NASA DATA:
ASSESSMENT ID:        FRCS-1283  BASELINE [ ]
NASA FMEA #:        NEW [ ]

SUBSYSTEM:  FRCS    NASA DATA:
MDAC ID:        1283  BASELINE [ ]
ITEM:  MANIFOLD 5, JETS HEATER CONTROL SWITCH  NEW [ ]

LEAD ANALYST: 

ASSESSMENT:

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

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 5 JETS HEATER CONTROL SWITCH 18 RE-ANALYZED BY
IOA. SEE ASSESSMENT IDS 11180X-11184X.
ASSESSMENT DATE: 
ASSESSMENT ID: FRCS-1284
NASA FMEA #: NASA DATA:
SUBSYSTEM: FRCS 
MDAC ID: 1284 
ITEM: MANIFOLD 5, JETS HEATER CONTROL SWITCH ON
CONTACTS 1, 2
LEAD ANALYST:

ASSESSMENT:

| CRITICALITY | REDUNDANCY SCREENS | CIL |
| FLIGHT | HDW/FUNC | A | B | C |
| NASA | [ / ] | [ ] | [ ] | [ ] | [ ] |
| IOA | [ 2 /2 ] | [ ] | [ ] | [ ] | [ ] |
| COMPARE | [ N /N ] | [ ] | [ ] | [ ] | [ N ] |

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 5 JETS HEATER CONTROL SWITCH 18 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11180X-11184X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: [ASSESSMENT ID: FRCS-1285] NASA DATA: 
NASA FMEA #: [ASSESSMENT ID: FRCS-1285] BASELINE [ ] 
SUBSYSTEM: FRCS NEW [ ] 
MDAC ID: 1285 ITEM: MANIFOLD 5, JETS HEATER CONTROL SWITCH ON 
ITEM: CONTACTS 1, 2 CONTACTS 1, 2 
LEAD ANALYST: 

ASSESSMENT: 

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA | [ ] | [ ] | [ ] | [ ] | [ ] | *
| IOA | [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] |
| COMPARE | [ N /N ] | [ N ] | [ N ] | [ N ] | [ ] |

RECOMMENDATIONS: (If different from NASA) 

[ ] [ ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable) 

ADEQUATE [ ] 
INADEQUATE [ ]

REMARKS: 
FORWARD MANIFOLD 5 JETS HEATER CONTROL SWITCH 18 RE-ANALYZED BY 
IOA. SEE ASSESSMENT IDS 11180X-11184X.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:             NASA DATA:
ASSESSMENT ID:    FRCS-1286             BASELINE [ ]
NASA FMEA #:          NEW [ ]

SUBSYSTEM:    FRCS
MDAC ID:  1286
ITEM: MANIFOLD 5, JETS HEATER CONTROL SWITCH OFF CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY</th>
<th>SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
FORWARD MANIFOLD 5 JETS HEATER CONTROL SWITCH 18 RE-ANALYZED BY IOA. SEE ASSESSMENT ID 11180X-11184X.

REPORT DATE 2/26/88 C-1250
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:
ASSESSMENT ID: FRCS-1287
NASA FMEA #:
NASA DATA:
ASSESSMENT ID: FRCS-1287
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 1287
ITEM: MANIFOLD 5, JETS HEATER CONTROL SWITCH OFF CONTACTS 3, 4

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA  [ / ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA  [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE [ N /N ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
FORWARD MANIFOLD 5 JETS HEATER CONTROL SWITCH 18 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11180X-11184X.

REPORT DATE 2/26/88 C-1251
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE:  
NASA DATA:  
ASSESSMENT ID: FRCS-1288  
BASELINE [ ]  
NASA FMEA #:  
NEW [ ]  

SUBSYSTEM: FRCS  
MDAC ID: 1288  
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 5  

LEAD ANALYST:  

ASSESSMENT:  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ] [ ] [ ] [ ] [ ]</td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td></td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS:  (If different from NASA)  

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

(ADD/DELETE)  

* CIL RETENTION RATIONALE: (If applicable)  

ADEQUATE [ ]  
INADEQUATE [ ]  

REMARKS:  
FORWARD MANIFOLD 5 JETS HEATER CONTROL SWITCH 18 RE-ANALYZED BY IOA. SEE ASSESSMENT IDS 11180X-11184X.  

REPORT DATE 2/26/88 C-1252
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: FRCS-1289
ASSESSMENT ID: NASA DATA:
NASA FMEA #: BASELINE [ ]
SUBSYSTEM: FRCS NEW [ ]
MDAC ID: 1289
ITEM: SWITCH, TOGGLE RCS/OMS HEATERS FWD RCS JET 5

LEAD ANALYST:

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
FORWARD MANIFOLD 5 JETS HEATER CONTROL SWITCH 18 RE-ANALYZED BY IOA. SEE ASSESSMENT IDs 11180X-11184X.

REPORT DATE 2/26/88 C-1253
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1290
NASA FMEA #: 03-2F-103345 -1
ASSESSMENT ID: FRCS-1290
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1290
ITEM: FU SYSTEM A & B THERMOSTAT

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

RECOMMENDATIONS:
(If different from NASA)

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1254
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1291
NASA FMEA #: 03-2F-103345 -1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1291
ITEM: FU SYSTEM A & B THERMOSTAT

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1255
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1292
NASA FMEA #: 03-2F-103345 -1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1292
ITEM: OX SYSTEM A & B THERMOSTAT

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1256
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1293
NASA FMEA #: 03-2F-103345 -2

SUBSYSTEM: FRCS
MDAC ID: 1293
ITEM: OX SYSTEM A & B THERMOSTAT

LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

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

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *

IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1257
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1294
NASA FMEA #: 03-2F-121345-1

NASA DATA:
BASELINE [  ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1294
ITEM: THERMOSTAT, PRIMARY THRUSTERS, - X AXIS

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *

IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1295
NASA FMEA #: 03-2F-103345 -2
SUBSYSTEM: FRCS
MDAC ID: 1295
ITEM: THERMOSTAT, PRIMARY THRUSTERS, - X AXIS
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

Adequate [ ]
Inadequate [ ]

REMARKS:

IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1259
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1296
NASA FMEA #: 03-2F-103345 -1
SUBSYSTEM: FRCS
MDAC ID: 1296
ITEM: THERMOSTAT, PRIMARY THRUSTERS, Y AXIS
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

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

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /1R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ /N ] [ ] [ ] [ ] [ ]

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1260
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1297
NASA FMEA #: 03-2F-103345 -2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 1297
ITEM: THERMOSTAT, PRIMARY THRUSTERS, Y AXIS

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-1298
NASA FMEA #: 03-2F-103345 -1
SUBSYSTEM: FRCS
ITEM: THERMOSTAT, PRIMARY THRUSTERS, Z AXIS
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1262
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-1299  
NASA FMEA #: 03-2F-103345-2

NASA DATA:
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRCS  
MDAC ID: 1299  
ITEM: THERMOSTAT, PRIMARY THRUSTERS, Z AXIS

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
IOA AGREES WITH NASA FMEA.
### APPENDIX C
### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**NASA DATA:**  
**ASSESSMENT ID:** FRCS-1300  
**NASA FMEA #:** 03-2F-103345 -2  
**SUBSYSTEM:** FRCS  
**MDAC ID:** 1300  
**ITEM:** THERMOSTAT, VERNIER THRUSTERS, ALL AXES  
**LEAD ANALYST:** D. HARTMAN  

#### ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

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

| [ 2 /2 ] | [ ] | [ ] | [ ] | [ A ] | (ADD/DELETE) |

* CIL RETENTION RATIONALE: (If applicable)  

**REMARKS:**  
THIS FAILURE MAY CAUSE LOSS OF MISSION OPERATIONS. NOTE: VERNIER THRUSTERS THERMAL SWITCH NOT SPECIFICALLY ADDRESSED ON THIS FMEA.  

**ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.**
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA: BASELINE [ ]
ASSESSMENT ID: FRCS-1301  NASA FMEA #: NONE
NASA DATA:  BASELINE [ ]
SUBSYSTEM: FRCS  NEW [ ]
MDAC ID: 1301  ITEM: THERMOSTAT, VERNIER THRUSTERS, ALL AXES
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
</tbody>
</table>

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

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

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

REMARKS:
VERNIER THRUSTERS THERMAL SWITCH NOT ADDRESSED.

SUBSYSTEM MANAGER STATED THAT THE VERNIER THERMAL SWITCH WAS PART OF THE VERNIER THRUSTER ASSEMBLY AND DID NOT REQUIRE A SEPARATE FMEA. FOR CONSISTENCY WITH THE PRIMARY THRUSTERS, IOA RECOMMENDS A FMEA BE CREATED TO COVER THIS FAILURE MODE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11001X
NASA FMEA #: 05-6KF-2006-1
SUBSYSTEM: FRCS
MDAC ID: 11001
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [3/2R] [P] [P] [P] [ ] *
IOA [3/IR] [P] [NA] [P] [ ]
COMPARE [N] [ ] [N] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
FAILURE CAUSE THE INABILITY TO CLOSE THE VALVE. LOSS OF ALL REDUNDANCY PREVENTS ISOLATION OF A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1266
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11002X
NASA FMEA #: 05-6KF-2006-1

SUBSYSTEM: FRCS
MDAC ID: 11002
ITEM: FUSE, 1A
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [3 /1R ]</td>
<td>[ P ]</td>
<td>[ NA ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

FAILURE CAUSE THE INABILITY TO CLOSE THE VALVE. LOSS OF ALL REDUNDANCY PREVENTS ISOLATION OF A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88  C-1267
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11003X
NASA FMEA #: 05-6KF-2032-1

SUBSYSTEM: FRCS
MDAC ID: 11003
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ NA]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /1R ] [ P ] [ NA] [ P ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
SWITCHED FAILED OPEN CAUSES THE INABILITY TO CLOSE THE VALVE. LOSS OF ALL REDUNDANCY PREVENTS ISOLATION OF A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1268
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11004X
NASA FMEA #: 05-6KF-2032-1

SUBSYSTEM: FRCS
MDAC ID: 11004
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NASA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[3/2R]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IOA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[3/1R]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMPARE</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
SWITCHED FAILED OPEN CAUSES THE INABILITY TO CLOSE THE VALVE.
LOSS OF ALL REDUNDANCY PREVENTS ISOLATION OF A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN
MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1269
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11005X
NASA FMEA #: 05-6KF-2032-2
SUBSYSTEM: FRCS
MDAC ID: 11005
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11005
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. LOSE CAPABILITY TO OPEN THE VALVE. THIS CAUSES LOSS OF VERNIERS THUS MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1270
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11006X
NASA FMEA #: 05-6KF-2032-1

NASA DATA: NASA FMEA #: 05-6KF-2032-1
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11006
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ NA ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

| [ 3 /1R ] | [ P ] | [ NA ] | [ P ] | [ ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
SWITCHED FAILED OPEN CAUSES THE INABILITY TO CLOSE THE VALVE.
LOSS OF ALL REDUNDANCY PREVENTS ISOLATION OF A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALLY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1271
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11007X
NASA FMEA #: 05-6KF-2032-2

SUBSYSTEM: FRCS
MDAC ID: 11007
ITEM: MANIFOLD 5, OX & FU ISOL VLV SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. LOSE CAPABILITY TO CLOSE THE VALVE TO ISOLATE A THRUSTER LEAK.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11008X
NASA FMEA #: 05-6KF-2090-1
SUBSYSTEM: FRCS
MDAC ID: 11008
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

CRITICALITY
FLIGHT
HDW/FUNC

REDUNDANCY SCREENS
A   B   C

CIL
ITEM

NASA [ 3 /1R ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ /N ] [ ] [ N ] [ ] [ N ]

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ D ]
(ADD/DELETE)

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

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE STATUS. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-11009X
NASA FMEA #: 05-6KF-2090-2
SUBSYSTEM: FRCS
MDAC ID: 11009
ITEM: RESISTOR, 1.2K 2W
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td>Flight HDW/Func</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88
C-1274
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11010X
NASA FMEA #: 05-6KF-2092-1

SUBSYSTEM: FRCS
MDAC ID: 11010
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

| NASA   | [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| IOA    | [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| COMPAR | [ / ]    | [ ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88   C-1275
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11011X
NASA FMEA #: 05-6KF-2092-1

SUBSYSTEM: FRCS
MDAC ID: 11011
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCRENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1276
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11012X
NASA FMEA #: 05-6KF-2091-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11012
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ]*
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1277
ASSESSMENT DATE: 1/29/88

ASSESSMENT ID: FRCS-11013X

NASA FMEA #: 05-6KF-2091-1

ASSESSMENT WORKSHEET

SUBSYSTEM: FRCS

MDAC ID: 11013

ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY REDUNDANCY SCREENS CIL

| FLIGHT | | | |
| HDW/FUNC | A | B | C |
| NASA | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| IOA | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| IVA | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

COMPARISON

| NASA | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| IOA | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| IVA | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:

THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1278
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11014X
NASA FMEA #: 05-6KF-2091-1

SUBSYSTEM: FRCS
MDAC ID: 11014
ITEM: RESISTOR, 5.1K 1/4W
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<p>| CRITICALLY | REDUNDANCY SCREENS | CIL |</p>
<table>
<thead>
<tr>
<th>HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ]

(ADD/DELETE)

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88

C-1279
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11015X
NASA FMEA #: 05-6KF-2091-1

SUBSYSTEM: FRCS
MDAC ID: 11015
ITEM: RESISTOR, 5.1K 1/4W

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td></td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11016X
NASA FMEA #: 05-6KF-2156-2
SUBSYSTEM: FRCS
MDAC ID: 11016
ITEM: EVENT INDICATOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>NASA</th>
<th>IOA</th>
<th>COMPARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>[ 3 /3 ]</td>
<td>[ 3 /2R ]</td>
<td>[ /N ]</td>
</tr>
<tr>
<td>REDUNDANCY SCREENS A B C</td>
<td>[ ] [ ] [ ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ N ] [ N ] [ N ]</td>
</tr>
</tbody>
</table>

NASA DATA:
BASELINE [ ]
NEW [ X ]

RECOMMENDATIONS: (If different from NASA)
[ 3 /2R ] [ P ] [ P ] [ P ]

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

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1281
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11017X
NASA FMEA #: 05-6KF-2156-1
SUBSYSTEM: FRCS
MDAC ID: 11017
ITEM: EVENT INDICATOR
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>NASA</td>
<td>[ 3/1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td></td>
<td>IOA</td>
<td>[ 3/2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ D ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE STATUS. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1282
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11018X
NASA FMEA #: 05-6KF-2177-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11018
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /1R ] [ P ] [ NA] [ P ] [ ]
(ADD/DELETE)

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

REMARKS:
FAILURE CAUSES INABILITY TO CLOSE THE VALVE TO ISOLATE A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1283
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11019X
NASA FMEA #: 05-6KF-2177-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11019
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1284
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11020X
NASA FMEA #: 05-6KF-2178-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11020
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /2 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 2 /2 ] [ ] [ ] [ ] [ ] [ A ]
(ADD/DELETE)

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

REMARKS:
FAILURE CAUSES THE INABILITY TO OPEN THE ISOLATION VALVE TO PERFORM MISSION OPERATIONS

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 5 ISOLATION VALVE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-11021X
NASA FMEA #: 05-6KF-2178-2

SUBSYSTEM: FRCS
MDAC ID: 11021
ITEM: CONTROLLER, REMOTE POWER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NASA</th>
<th>3 /1R</th>
<th>P</th>
<th>F</th>
<th>P</th>
<th>X</th>
<th>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>3 /3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>/N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ D ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11022X
NASA FMEA #: 05-6KF-2210A-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11022
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ D ]
(ADD/DELETE)

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

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1287
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11023X
NASA FMEA #: 05-6KF-2210A-2

SUBSYSTEM: FRCS
MDAC ID: 11023
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE CAUSES THE INABILITY TO CLOSE THE VALVE TO ISOLATE A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1288
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11024X
NASA FMEA #: 05-6KF-2210-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11024
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ F ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ]
[ P ]
[ P ]
[ P ]
[ D ]
(ADD/DELETE)

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

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE CAUSES LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1289
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11025X
NASA FMEA #: 05-6KF-2210-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11025
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 2 /2 ] [ ] [ ] [ ] [ X ]
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ N ]

RECOMMENDATIONS: (If different from NASA)
[ 2 /2 ] [ ] [ ] [ ] [ A ]
(ADD/DELETE)

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

REMARKS:
THIS FAILURE CAUSES THE INABILITY TO OPEN THE VALVE, CAUSING LOSS OF VERNIERS FOR MISSION OPERATIONS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1290
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11026X
NASA FMEA #: 05-6KF-2213-1

SUBSYSTEM: FRCS
MDAC ID: 11026
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ NA ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE CAUSES INABILITY TO CLOSE THE VALVE TO ISOLATE A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR A FAILED OPEN MANIFOLD 5 ISOLATION VALVE.
### APPENDIX C
#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**NASA DATA:**

<table>
<thead>
<tr>
<th>NASA DATA</th>
<th>BASELINE</th>
<th>NEW</th>
</tr>
</thead>
</table>

**ASSESSMENT ID:** FRCS-11027X  
**NASA FMEA #:** 05-6KF-2213-2

**SUBSYSTEM:** FRCS  
**MDAC ID:** 11027  
**ITEM:** DRIVER, HYBRID

**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>SUBSYSTEM</th>
<th>MDAC ID</th>
<th>ITEM</th>
<th>LEAD ANALYST</th>
<th>ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRCS</td>
<td>11027</td>
<td>DRIVER, HYBRID</td>
<td>D. HARTMAN</td>
<td><strong>NASA</strong> [3/IR]</td>
</tr>
</tbody>
</table>

**CRITICALITY REDUNDANCY SCREENS CIL ITEM**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td><strong>NASA</strong></td>
<td>[3 /1R]</td>
<td>[P]</td>
</tr>
<tr>
<td><strong>IOA</strong></td>
<td>[3 /3]</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>COMPARE</strong></td>
<td>[ /N]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NASA</strong></td>
<td>[3 /3]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

* CIL RETENTION RATIONALE: (If applicable)

<table>
<thead>
<tr>
<th>RETENTION RATIONALE</th>
<th>ADEQUATE</th>
<th>INADEQUATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADEQUATE</strong></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

**REMARKS:**

NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11028X
NASA FMEA #: 05-6KF-2212-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11028
ITEM: DRIVER, HYBRID

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

| NASA | 3 /2R | [ P ] | [ P ] | [ P ] | [ ] |
| IOA  | 3 /1R | [ P ] | [ NA] | [ P ] | [ ] |
| COMPARE | /N | [ ] | [ N ] | [ ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

| 3 /1R | [ P ] | [ NA] | [ P ] | [ ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE CAUSES THE INABILITY TO CLOSE THE VALVE TO ISOLATE A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11029X
NASA FMEA #: 05-6KF-2212-2
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 11029
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [ 3 /1R ] [ P ] [ F ] [ P ] [ X ] *
IOA [ 2 /2 ] [ ] [ ] [ ] [ ] [ X ]
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA FMEA CONTAINS MULTIPLE FAILURES. THIS DRIVER FAILED HIGH CAUSES INABILITY TO OPEN THE ISOLATION VALVE. THIS CAUSES LOSS OF VERNIERS THUS MISSION OPERATIONS.

ISSUE TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1294
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11030X
NASA FMEA #: 05-6KF-2211-1
SUBSYSTEM: FRCS
MDAC ID: 11030
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /2 ] [ ] [ ] [ ] [ A ]
(ADD/DELETE)

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

REMARKS:
THIS FAILURE CAUSES INABILITY TO OPEN THE VALVE FOR VERNIERS, THUS CAUSING LOSS OF MISSION OPERATIONS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 5 ISOLATION VALVE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11031X
NASA FMEA #: 05-6KF-2211-2

SUBSYSTEM: FRCS
MDAC ID: 11031
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11032X
NASA FMEA #: 05-6KF-2113A-1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 11032
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ]   [ P ]   [ P ]   [ P ]   [ ]   [ ] *
IOA [ 2 /2 ]     [ ]     [ ]     [ ]     [ ]     [ X ]
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ N ] [ N ]

RECOMMENDATIONS: (If different from NASA)

[ 2 /2 ] [ ] [ ] [ ] [ ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE CAUSES THE INABILITY TO OPEN THE VALVE, CAUSING LOSS OF VERNIERS THUS MISSION OPERATIONS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 5 ISOLATION VALVE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11033X
NASA FMEA #: 05-6KF-2113A-2

SUBSYSTEM: FRCS
MDAC ID: 11033
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ ] [ D ]
(ADD/DELETE)

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

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. LOSE CAPABILITY TO CLOSE THE VALVE TO ISOLATE A THRUSTER LEAK.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11034X
NASA FMEA #: 05-6KF-2224-1

SUBSYSTEM: FRCS
MDAC ID: 11034
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3 /2R]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [2 /2]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[2 /2] [ ] [ ] [ ] [ A ]
(ADD/DELETE)

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

REMARKS:
THIS FAILURE CAUSES THE INABILITY TO OPEN THE VALVE, CAUSING LOSS OF VERNIERS THUS MISSION OPERATIONS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1299
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11035X
NASA FMEA #: 05-6KF-2224-2

SUBSYSTEM: FRCS
MDAC ID: 11035
ITEM: DRIVER, HYBRID
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

| [ 3 /3 ] | [ ] | [ ] | [ ] | [ D ] |

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1300
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11036X
NASA FMEA #: 05-6KF-2257-1

SUBSYSTEM: FRCS
MDAC ID: 11036
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[   ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ D ]
(ADD/DELETE)

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

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11037X
NASA FMEA #: 05-6KF-2257-2

SUBSYSTEM: FRCS
MDAC ID: 11037
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

NASA [3/3] [ ] [ ] [ ] [ ] [ ]
IOA [3/2R] [P] [P] [P] [ ]
COMPARE [ /N ] [N] [N] [N] [ ]

RECOMMENDATIONS: (If different from NASA)

[3/2R] [P] [P] [P] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1302
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11038X
NASA FMEA #: 05-6KF-2257A-1

SUBSYSTEM: FRCS
MDAC ID: 11038
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLIGHT</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[3 /1R]</td>
<td>[P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3 /3]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[3 /3 ] [ ] [ ] [ ] [ ] [ D ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1303
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11039X
NASA FMEA #: 05-6KF-2257A-2

SUBSYSTEM: FRCS
MDAC ID: 11039
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY
FLIGHT HDW/FUNC

REduNDANCY SCREENS

NASA [ ] [ ] [ ] [ ]
IOA [ ] [ ] [ ] [ ]
COMPARE [ ] [ ] [ ] [ ]

CIL ITEM

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE CAUSES LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1304
ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11044X
NASA FMEA #: 05-6KF-2257D-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11044
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A B C</td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE CAUSES INABILITY TO CLOSE THE VALVE TO ISOLATE A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-11045X  
NASA FMEA #: 05-6KF-2257D-2  

SUBSYSTEM: FRCS  
MDAC ID: 11045  
ITEM: DIODE  

LEAD ANALYST: D. HARTMAN  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]

INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1306
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11046X
NASA FMEA #: 05-6KF-2257E-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11046
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

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

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

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

REMARKS:
LOSE CAPABILITY TO CLOSE THE VALVE WITH THE GPC. MANUAL REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO ISOLATE A THRUSTER LEAK.

SUBSYSTEM MANAGER STATED THAT THE GPC IS NOT USED TO ISOLATE A THRUSTER LEAK BECAUSE TIME TO EFFECT IS UP TO 24 HOURS (SOFTWARE HAS TO BE MANUALLY LOADED). IOA WITHDRAWS THEIR ISSUE BASED ON THIS RATIONALE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11047X
NASA FMEA #: 05-6KF-2257E-2
SUBSYSTEM: FRCS
MDAC ID: 11047
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1308
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11048X
NASA FMEA #: 05-6KF-2257B-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11048
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ NA]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11049X
NASA FMEA #: 05-6KF-2257B-2
SUBSYSTEM: FRCS
MDAC ID: 11049
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.

REPORT DATE 2/26/88 C-1310
ASSessment DATE: 1/29/88
ASSessment ID: FRCS-11050X
NASA FMEA #: 05-6KF-2257C-1
SUBSYSTEM: FRCS
MDAC ID: 11050
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3/2R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [3/2R]</td>
<td>[P]</td>
<td>[NA]</td>
</tr>
<tr>
<td>COMPARE [ ]</td>
<td>[ ]</td>
<td>[N]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11051X
NASA FMEA #: 05-6KF-2257C-2
SUBSYSTEM: FRCS
MDAC ID: 11051
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11052X
NASA FMEA #: 05-6KF-2257B-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11052
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| NASA        | [ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ] *
| IOA         | [ 3 /2R ] | [ P ] | [ P ] | [ P ] | [ ]
| COMPARE     | [ / ]   | [ ] | [ ] | [ ] | [ ]

RECOMMENDATIONS: (If different from NASA)

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

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1313
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11053X
NASA FMEA #: 05-6KF-2257B-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11053
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NASA</th>
<th>IOA</th>
<th>COMPARISON</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-11054X  
NASA FMEA #: 05-6KF-2257C-1

NASA DATA: 
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRCS  
MDAC ID: 11054  
ITEM: DIODE  
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

NASA [ 3 /2R ] [ P ] [ P ] [ P ] [ ] *  
IOA [ 3 /2R ] [ P ] [ NA] [ P ] [ ]

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

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88  C-1315
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11055X
NASA FMEA #: 05-6KF-2257C-2
SUBSYSTEM: FRCS
MDAC ID: 11055
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS A</th>
<th>B</th>
<th>C</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>[ 3 /3 ]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88
C-1316
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11056X
NASA FMEA #: 05-6KF-2269-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11056
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA [ 3/3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3/2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3/2R ] [ P ] [ P ] [ P ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1317
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11057X
NASA FMEA #: 05-6KF-2269-2

SUBSYSTEM: FRCS
MDAC ID: 11057
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

*(ADD/DELETE)*

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1318
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11058X
NASA FMEA #: 05-6KF-2269-1
SUBSYSTEM: FRCS
MDAC ID: 11058
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE MAY CAUSE LOSS OF ACCURATE INDICATION OF THE VALVE POSITION. REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY MAY LEAD TO FALSELY FAILING THE VALVE CLOSED, POSSIBLY EFFECTING MISSION OPERATIONS.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88  C-1319
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-11059X  
NASA FMEA #: 05-6KF-2269-2  
NASA DATA:  
BASELINE [ ]  
NEW [ X ]  
SUBSYSTEM: FRCS  
MDAC ID: 11059  
ITEM: DIODE  
LEAD ANALYST: D. HARTMAN  

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1320
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA:
ASSESSMENT ID: FRCS-11060X  BASELINE [ ]
NASA FMEA #: 05-6KF-2257D-1  NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11060
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<p>| CRITICALLY | REDUNDANCY SCREENS | CIL ITEM |</p>
<table>
<thead>
<tr>
<th>FLIGHT HDW/FUNC</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ NA]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO CLOSE THE VALVE WITH MANUALLY. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO ISOLATE A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88  C-1321
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11061X
NASA FMEA #: 05-6KF-2257D-2

SUBSYSTEM: FRCS
MDAC ID: 11061
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1322
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11062X
NASA FMEA #: 05-6KF-2257E-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11062
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

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

<table>
<thead>
<tr>
<th>NASA</th>
<th>[ 3 /3 ]</th>
<th>[ ]</th>
<th>[ ]</th>
<th>[ ]</th>
<th>[ ]</th>
<th>[ ]</th>
<th>[ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ NA]</td>
<td>[ P ]</td>
<td>[ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
LOSE CAPABILITY TO CLOSE THE VALVE WITH THE GPC. MANUAL REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO ISOLATE A THRUSTER LEAK.

SUBSYSTEM MANAGER STATED THAT THE GPC IS NOT USED TO ISOLATE A THRUSTER LEAK BECAUSE TIME TO EFFECT IS UP TO 24 HOURS (SOFTWARE HAS TO BE MANUALLY LOADED). IOA WITHDRAWS THEIR ISSUE BASED ON THIS RATIONALE.

REPORT DATE 2/26/88 C-1323
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11063X
NASA FMEA #: 05-6KF-2257E-2

SUBSYSTEM: FRCS
MDAC ID: 11063
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[3/3]</td>
<td>[   ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[3/3]</td>
<td>[   ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[   ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [   ]
INADEQUATE [   ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88
C-1324
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11064X
NASA FMEA #: 05-6KF-2257F-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11064
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /1R ] [ P ] [ NA] [ P ] [ ]
(ADD/DELETE)

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

REMARKS:
LOSE CAPABILITY TO CLOSE THE VALVE. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO ISOLATE A THRUSTER LEAK.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OPEN MANIFOLD 5 ISOLATION VALVE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
BASELINE [ ]
NEW [ X ]

ASSESSMENT ID: FRCS-11065X
NASA FMEA #: 05-6KF-2257F-2

SUBSYSTEM: FRCS
MDAC ID: 11065
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

(ADD/DELETE)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C  
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-11066X  
NASA FMEA #: 05-6KF-2257G-1

NASA DATA:  
BASELINE [ ]  
NEW [ X ]

SUBSYSTEM: FRCS  
MDAC ID: 11066  
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOA [ 3 /1R ] [ P ] [ NA] [ P ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPARE [ / ] [ ] [ ] [ ] [ ] [ ] [ ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  
(If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO CLOSE THE VALVE WITH THE GPC. MANUAL REDUNDANCY PROVIDED. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO ISOLATE A THRUSTER LEAK.

SUBSYSTEM MANAGER STATED THAT THE GPC IS NOT USED TO ISOLATE A THRUSTER LEAK BECAUSE TIME TO EFFECT IS UP TO 24 HOURS (SOFTWARE HAS TO BE MANUALLY LOADED). IOA WITHDRAWS THEIR ISSUE BASED ON THIS RATIONALE.

REPORT DATE 2/26/88  C-1327
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-11067X
NASA FMEA #: 05-6KF-2257G-2
SUBSYSTEM: FRCS
MDAC ID: 11067
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [3/3]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [/]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1328
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11068X
NASA FMEA #: 05-6KF-2257H-1
SUBSYSTEM: FRCS
MDAC ID: 11068
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1329
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11069X
NASA FMEA #: 05-6KF-2257H-2

SUBSYSTEM: FRCS
MDAC ID: 11069
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11070X
NASA FMEA #: 05-6KF-2258-1

SUBSYSTEM: FRCS
MDAC ID: 11070
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /2R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /2 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /2 ] [ ] [ ] [ ] [ ] [ A ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE CAUSES THE INABILITY TO OPEN THE ISOLATION VALVE, CAUSING LOSS OF VERNIERS THUS MISSION OPERATIONS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALLY FOR THE FAILED CLOSED MANIFOLD 5 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1331
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11071X
NASA FMEA #: 05-6KF-2258-2

SUBSYSTEM: FRCS
MDAC ID: 11071
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11072X
NASA FMEA #: NONE
SUBSYSTEM: FRCS
MDAC ID: 11072
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R]</td>
<td>[ P]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:  (If different from NASA)

[ 3 /1R ] [ P ] [ NA] [ P ] [ ]

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DIODES NOT ADDRESSED BY A FMEA. IOA RECOMMENDS THEIR INCLUSION INTO A FMEA.

SUBSYSTEM MANAGER STATED THAT THE DIODES WERE PART OF THE MANIFOLD ISOLATION VALVE ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THIS FAILURE BE INCORPORATED INTO A FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11073X
NASA FMEA #: NONE
SUBSYSTEM: FRCS
MDAC ID: 11073
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM MANAGER STATED THAT THE DIODES WERE PART OF THE MANIFOLD ISOLATION VALVE ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THIS FAILURE BE INCORPORATED INTO A FMEA.

REMARKS:
DIODES NOT Addressed By A FMEA. IOA RECOMMENDS THEIR INCLUSION INTO A FMEA.

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ ] / [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 / 3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N / N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11074X
NASA FMEA #: NONE
SUBSYSTEM: FRCS
MDAC ID: 11074
ITEM: DIODE
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ ] / [ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ NA ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /1R ] [ P ] [ NA ] [ P ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DIODES NOT ADDRESSED BY A FMEA. IOA RECOMMENDS THEIR INCLUSION INTO A FMEA.

SUBSYSTEM MANAGER STATED THAT THE DIODES WERE PART OF THE MANIFOLD ISOLATION VALVE ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THIS FAILURE BE INCORPORATED INTO A FMEA.

REPORT DATE 2/26/88 C-1335
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11075X
NASA FMEA #: NONE
NASA DATA: BASELINE [ ] NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 11075
ITEM: DIODE

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N /N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
DIODES NOT ADDRESSED BY A FMEA. IOA RECOMMENDS THEIR INCLUSION INTO A FMEA.

SUBSYSTEM MANAGER STATED THAT THE DIODES WERE PART OF THE MANIFOLD ISOLATION VALVE ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THIS FAILURE BE INCORPORATED INTO A FMEA.

REPORT DATE 2/26/88 C-1336
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11076X
NASA FMEA #: 05-6KF-2280-1
SUBSYSTEM: FRCS
MDAC ID: 11076
ITEM: CIRCUIT BREAKER
LEAD ANALYST: D. HARTMAN

NASA DATA:
BASELINE [ ]
NEW [ X ]

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

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

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

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11077X
NASA FMEA #: 05-6KF-2280-2

SUBSYSTEM: FRCS
MDAC ID: 11077
ITEM: CIRCUIT BREAKER

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ D ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11078X
NASA FMEA #: NONE
SUBSYSTEM: FRCS
MDAC ID: 11078
ITEM: MICROSWITCH
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /2R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N /N ]</td>
<td>[ N ]2880H[N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
SWITCH NOT ADDRESSED BY A FMEA. IOA RECOMMENDS ITS INCLUSION INTO A FMEA.

SUBSYSTEM MANAGER STATED THE MICROSWITCH WAS PART OF THE MANIFOLD 5 ISOLATION VALVE ASSEMBLY. FOR COMPLETENESS, IOA RECOMMENDS THIS FAILURE BE INCORPORATED INTO A FMEA.

REPORT DATE 2/26/88 C-1339
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11079X
NASA FMEA #: NONE
NASA DATA:
BASELINE [ ]
NEW [ ]

SUBSYSTEM: FRCS
MDAC ID: 11079
ITEM: MICROSWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>ITEM</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

NASA [ ] [ ] [ ] [ ] [ ] [ ]
IOA [ 3 /2R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ N /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ 3 /2R ] [ P ] [ P ] [ P ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
SWITCH NOT ADDRESSED BY A FMEA. IOA RECOMMENDS ITS INCLUSION INTO A FMEA.

REPORT DATE 2/26/88 C-1340
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11080X
NASA FMEA #: 05-6KF-2026-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11080
ITEM: HE OX & FU ISOL VLV A OR B SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1341
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11081X
NASA FMEA #: 05-6KF-2026-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11081
ITEM: HE OX & FU ISOL VLV A OR B SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ]
IOA [ 2 /1R ] [ P ] [ P ] [ P ] [ X ]
COMPARE [ N / ] [ ] [ ] [ ] [ N ]

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
WITH VALVE CLOSED, A SHORT ACROSS CLOSE CONTACTS PREVENTS FURTHER VALVE MOVEMENT. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR A FAILED CLOSED HELIUM ISOLATION VALVE.

REPORT DATE 2/26/88
C-1342
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11082X
NASA FMEA #: 05-6KF-2026-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11082
ITEM: HE OX & FU ISOL VLV A OR B SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

| [ 2 /1R ] | [ P ] | [ P ] | [ P ] | [ A ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
WITH VALVE CLOSED, A SHORT ACROSS CLOSE CONTACTS PREVENTS FURTHER VALVE MOVEMENT. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR A FAILED CLOSED HELIUM ISOLATION VALVE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11083X
NASA FMEA #: 05-6KF-2026-2

SUBSYSTEM: FRCS
MDAC ID: 11083
ITEM: HE OX & FU ISOL VLV A OR B SWITCH

LEAD ANALYST: D. HARTMAN

ASSESMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /IR ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11084X
NASA FMEA #: 05-6KF-2026-1
NASA ID: BASELINE [ ]
NASA FMEA #: NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 11084
ITEM: HE OX & FU ISOL VLV A OR B SWITCH
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1345
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11085X
NASA FMEA #: 05-6KF-2028-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11085
ITEM: OX & FU TK ISOL VLV 1/2 SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NASA</th>
<th>[ 3 /1R ]</th>
<th>[ P ]</th>
<th>[ P ]</th>
<th>[ P ]</th>
<th>[ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ NA]</td>
<td>[ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td></td>
<td>[ ]</td>
<td>[ N ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
### APPENDIX C

#### ASSESSMENT WORKSHEET

**ASSESSMENT DATE:** 1/29/88  
**ASSESSMENT ID:** FRCS-11086X  
**NASA FMEA #:** 05-6KF-2028-2  
**NASA DATA:**  
  - BASELINE [ ]  
  - NEW [ X ]  

**SUBSYSTEM:** FRCS  
**MDAC ID:** 11086  
**ITEM:** OX & FU TK ISOL VLV 1/2 SWITCH  

**LEAD ANALYST:** D. HARTMAN  

**ASSESSMENT:**  

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

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

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

(ADD/DELETE)  

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

ADEQUATE [ ]  

INADEQUATE [ ]  

**REMARKS:**  

NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11087X
NASA FMEA #: 05-6KF-2028-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11087
ITEM: OX & FU TK ISOL VLV 1/2 SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11088X
NASA FMEA #: 05-6KF-2028-2

SUBSYSTEM: FRCS
MDAC ID: 11088
ITEM: OX & FU TK ISOL VLV 1/2 SWITCH
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88   C-1349
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11089X
NASA FMEA #: 05-6KF-2028-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11089
ITEM: OX & FU TK ISOL VLV 1/2 SWITCH

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11090X
NASA FMEA #: 05-6KF-2029-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11090
ITEM: OX & FU TK ISOL VLV 3/4/5 SWITCH 24

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

(ADD/DELETE)

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

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11091X
NASA FMEA #: 05-6KF-2029-2

SUBSYSTEM: FRCS
MDAC ID: 11091
ITEM: OX & FU TK ISOL VLV 3/4/5 SWITCH 24
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS A</th>
<th>B</th>
<th>C</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11092X
NASA FMEA #: 05-6KF-2029-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11092
ITEM: OX & FU TK ISOL VLV 3/4/5 SWITCH 24

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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

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

REMARKS:
IOA AGREES WITH NASA FMEA.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-11093X
NASA FMEA #: 05-6KF-2029-2
SUBSYSTEM: FRCS
MDAC ID: 11093
ITEM: OX & FU TK ISOL VLV 3/4/5 SWITCH 24
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1354
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11094X
NASA FMEA #: 05-6KF-2029-1

SUBSYSTEM: FRCS
MDAC ID: 11094
ITEM: OX & FU TK ISOL VLV 3/4/5 SWITCH 24
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

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

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1355
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11095X
NASA FMEA #: 05-6KF-2030-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11095
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH 30

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA  [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA   [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1356
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11096X
NASA FMEA #: 05-6KF-2030-2

NASA DATA:

BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11096
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH 30

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

ASSESSMENT:

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

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 2 /1R ] [ P ] [ P ] [ P ] [ X ]

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

RECOMMENDATIONS: (If different from NASA)

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

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR A FAILED CLOSED HELIUM ISOLATION VALVE.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11097X
NASA FMEA #: 05-6KF-2030-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11097
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH 30

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALLY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /IR ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /IR ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /IR ] [ P ] [ P ] [ P ] [ A ]

(ADD/DELETE)

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

REMARKS:
LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR A FAILED CLOSED HELIUM ISOLATION VALVE.

REPORT DATE 2/26/88
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11098X
NASA FMEA #: 05-6KF-2030-2

SUBSYSTEM: MDAC
MDAC ID: 11098
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH 30

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

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

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE HAS NO EFFECT. SWITCH IS EASILY CORRECTABLE.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11099X
NASA FMEA #: 05-6KF-2030-1

SUBSYSTEM: FRCS
MDAC ID: 11099
ITEM: MANIFOLD 1, OX & FU ISOL VLV SWITCH 30

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA        | [ 3 /1R] | [ P ]   | [ P ]  | [ P ] | [ ] *
| IOA         | [ 3 /1R] | [ P ]   | [ P ]  | [ P ] | [ ] |
| COMPARE     | [ / ]   | [ ]     | [ ]    | [ ]   | [ ] |

RECOMMENDATIONS: (If different from NASA)

[ / ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1360
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11100X
NASA FMEA #: 05-6KF-2030-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11100
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH 31

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS A</th>
<th>B</th>
<th>C</th>
<th>CIL ITEM</th>
</tr>
</thead>
</table>
| NASA                        | [ 3 /1R ]            | [ P ] | [ P ] | [ P ] | [ ] *
| IOA                         | [ 3 /1R ]            | [ P ] | [ P ] | [ P ] | [ ] |

COMPARE [ / ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1361
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11101X
NASA FMEA #: 05-6KF-2030-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11101
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH 31

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE CAUSES LOSS INABILITY TO OPEN THE VALVE. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 2 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1362
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11102X
NASA FMEA #: 05-6KF-2030-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11102
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH 31

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] *
| IOA [ 2 /1R ] | [ P ] | [ P ] | [ P ] | [ X ]
| COMPARE [ N / ] | [ ] | [ ] | [ ] | [ N ]

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE CAUSES LOSS INABILITY TO OPEN THE VALVE. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 2 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1363
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11103X
NASA FMEA #: 05-6KF-2030-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11103
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH 31

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /1R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ / ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE HAS NO EFFECT. SWITCH IS EASILY CORRECTABLE.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11104X
NASA FMEA #: 05-6KF-2030-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11104
ITEM: MANIFOLD 2, OX & FU ISOL VLV SWITCH 31

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1365
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA:
ASSESSMENT ID: FRCS-11105X  BASELINE [ ]
NASA FMEA #: 05-6KF-2030-1  NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11105
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH 32

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
</tbody>
</table>

| NASA | [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] | * |
| IOA  | [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] |

COMPARE [ / ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88  C-1366
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11106X
NASA FMEA #: 05-6KF-2030-2
SUBSYSTEM: FRCS
MDAC ID: 11106
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH 32
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

COMPARE [ N / ] [ ] [ ] [ N ]

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE CAUSES INABILITY TO OPEN THE VALVE. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 3 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1367
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11107X
NASA FMEA #: 05-6KF-2030-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11107
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH 32

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE CAUSES INABILITY TO OPEN THE VALVE. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 3 ISOLATION VALVE.

REPORT DATE 2/26/88  C-1368
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
NASA DATA:
ASSESSMENT ID: FRCS-11108X
NASA FMEA #: 05-6KF-2030-2
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11108
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH 32

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

COMPARE [ / ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE HAS NO EFFECT. SWITCH IS EASILY CORRECTABLE.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11109X
NASA FMEA #: 05-6KF-2030-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11109
ITEM: MANIFOLD 3, OX & FU ISOL VLV SWITCH 32

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1370
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11110X
NASA FMEA #: 05-6KF-2030-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11110
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH 33

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /1R ] [ P ] [ P ] [ P ] [ ]
COMPARE [ / ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.

REPORT DATE 2/26/88 C-1371
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11111X
NASA FMEA #: 05-6KF-2030-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11111
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH 33

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE CAUSES INABILITY TO OPEN THE VALVE. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 4 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1372
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11112X
NASA FMEA #: 05-6KF-2030-2

SUBSYSTEM: FRCS
MDAC ID: 11112
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH 33

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [3/1R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>IOA [2/1R]</td>
<td>[P]</td>
<td>[P]</td>
</tr>
<tr>
<td>COMPARE [N/]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[2/1R] [P] [P] [P] [A]

(ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE CAUSES INABILITY TO OPEN THE VALVE. LOSS OF ALL REDUNDANCY CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED CLOSED MANIFOLD 4 ISOLATION VALVE.

REPORT DATE 2/26/88 C-1373
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11113X
NASA FMEA #: 05-6KF-2030-2
SUBSYSTEM: FRCS
MDAC ID: 11113
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH 33
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE HAS NO EFFECT. SWITCH IS EASILY CORRECTABLE.

ISSUE NOT RESOLVED AT THE MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1374
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11114X
NASA FMEA #: 05-6KF-2030-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11114
ITEM: MANIFOLD 4, OX & FU ISOL VLV SWITCH 33

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ / ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NO DIFFERENCES.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11115X
NASA FMEA #: 05-6KF-2035-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11115
ITEM: RJDF1B F1 MANIFOLD LOGIC SWITCH 7

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY REDUNDANCY SCREENS CIL
FLIGHT HDW/FUNC A B C ITEM

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 2 /1R ] [ P ] [ P ] [ P ] [ X ]
COMPARE [ N / ] [ ] [ ] [ ] [ N ]

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTER.

REPORT DATE 2/26/88 C-1376
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11116X
NASA FMEA #: 05-6KF-2035-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11116
ITEM: RJDF1B F1 MANIFOLD LOGIC SWITCH 7

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

CRITICALITY

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ] [ N ] [ N ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE ALONE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1377
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11117X
NASA FMEA #: 05-6KF-2035-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11117
ITEM: RJDFIB F1 MANIFOLD LOGIC SWITCH 7

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE ALONE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1378
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11118X
NASA FMEA #: 05-6KF-2035-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11118
ITEM: RJDF1B F1 MANIFOLD LOGIC SWITCH 7

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1379
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11119X
NASA FMEA #: 05-6KF-2035-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11119
ITEM: RJDF1B F1 MANIFOLD LOGIC SWITCH 7

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTER.

REPORT DATE 2/26/88 C-1380
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11120X
NASA FMEA #: 05-6KF-2036-1

SUBSYSTEM: FRCS
MDAC ID: 11120
ITEM: RJDF1B F1 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

LOSS OF ALL REDUNDANT JETS CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-1381
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11121X
NASA FMEA #: 05-6KF-2036-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11121
ITEM: RJDF1B F1 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td></td>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1382
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA:
ASSESSMENT ID: FRCS-11122X  BASELINE [ ]
NASA FMEA #: 05-6KF-2036-2  NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11122
ITEM: RJD1FB F1 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>
| NASA [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] | *
| IOA [ 3 /3 ] | [ ] | [ ] | [ ] | [ ] |

COMPARE [ /N ] | [ N ] | [ N ] | [ N ] | [ ] |

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] | [ ] | [ ] | [ ] | [ ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88  C-1383
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11123X
NASA FMEA #: 05-6KF-2036-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11123
ITEM: RJDFIB F1 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ] *</td>
</tr>
<tr>
<td>IOA [ 3 /1R ]</td>
<td>[ P ] [ P ] [ P ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ ] / [ ]</td>
<td>[ ] [ ] [ ] [ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1384
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11124X
NASA FMEA #: 05-6KF-2036-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11124
ITEM: RJDF1B F1 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

COMPARE [ N / ] [ ] [ ] [ ] [ ] [ N ]

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSS OF ALL REDUNDANT JETS CAUSES INABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-1385
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11125X
NASA FMEA #: 05-6KF-2035-1
NASA DATA:
BASELINE [ ]
NEW [ X ]
SUBSYSTEM: FRCS
MDAC ID: 11125
ITEM: RJDF1A F2 MANIFOLD LOGIC SWITCH 7
LEAD ANALYST: D. HARTMAN

ASSESSMENT:
CRITICALITY REDUNDANCY SCREENS CIL
FLIGHT HDW/FUNC A B C ITEM

| NASA | [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] |
| IOA  | [ 2 /1R ] | [ P ] | [ P ] | [ P ] | [ X ] |
| COMPARE | [ N / ] | [ ] | [ ] | [ ] | [ N ] |

RECOMMENDATIONS: (If different from NASA)
[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTER.

REPORT DATE 2/26/88 C-1386
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11126X
NASA FMEA #: 05-6KF-2035-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11126
ITEM: RJDF1A F2 MANIFOLD LOGIC SWITCH 7

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT</td>
<td>HDW/FUNC</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [ 3 /1R ] [ P ] [ P ] [ P ] [ ] *
IOA [ 3 /3 ] [ ] [ ] [ ] [ ]
COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE ALONE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1387
**APPENDIX C**

**ASSESSMENT WORKSHEET**

ASSESSMENT DATE: 1/29/88  
ASSESSMENT ID: FRCS-11127X  
NASA FMEA #: 05-6KF-2035-2

**NASA DATA:**  
BASELINE [ ]  
NEW [ X ]

**SUBSYSTEM:** FRCS  
MDAC ID: 11127  
ITEM: RJDF1A F2 MANIFOLD LOGIC SWITCH 7

**LEAD ANALYST:** D. HARTMAN

**ASSESSMENT:**

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

**RECOMMENDATIONS:** (If different from NASA)  
[ 3 /3 ] [ ] [ ] [ ] [ ] [ ] (ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)  
ADEQUATE [ ]  
INADEQUATE [ ]

**REMARKS:**  
THIS FAILURE ALONE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88  
C-1388
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA:
ASSESSMENT ID:  FRCS-11128X  NASA FMEA #: 05-6KF-2035-2
NASA DATA:  BASELINE [ ]  NEW [ X ]

SUBSYSTEM:  FRCS  MDAC ID:  11128
ITEM:  RJDF1A F2 MANIFOLD LOGIC SWITCH 7

LEAD ANALYST:  D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA  [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

COMPARE [ / ] [ ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS:  (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE:  (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE ALONE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88.
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88  NASA DATA: 
ASSESSMENT ID: FRCS-11129X  BASELINE [ ]
NASA FMEA #: 05-6KF-2035-1  NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11129
ITEM: RJDFIA F2 MANIFOLD LOGIC SWITCH 7

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ] (ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTER.

REPORT DATE 2/26/88  C-1390
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11130X
NASA FMEA #: 05-6KF-2036-1
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11130
ITEM: RJDF1A F2 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLIGHT</td>
<td>ITEM</td>
</tr>
<tr>
<td>HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA</td>
<td>[ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA</td>
<td>[ 2 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ N / ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-1391
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11131X
NASA FMEA #: 05-6KF-2036-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: MDAC
ID: 11131
ITEM:
FRCS 11131 RJDFIA F2 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11132X
NASA FMEA #: 05-6KF-2036-2

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11132
ITEM: RJDF1A F2 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

COMPARE [ /N ] [ N ] [ N ] [ N ] [ ]

RECOMMENDATIONS: (If different from NASA)
[ 3 /3 ] [ ] [ ] [ ] [ ]

*(ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11133X
NASA FMEA #: 05-6KF-2036-2

SUBSYSTEM: FRCS
MDAC ID: 11133
ITEM: RJDF1A F2 MANIFOLD DRIVER SWITCH 8
LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3/1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3/1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ / ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3/3 ] [ ] [ ] [ ] [ ] [ ]

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
NASA FMEA CONTAINS MULTIPLE FAILURES. THIS FAILURE ALONE HAS NO EFFECT.

AT MEETING WITH SUBSYSTEM MANAGER ON 1/20/88, NSTS 22206 WAS DISCUSSED. IT WAS AGREED UPON THAT THE ISSUE RAISED ABOVE WAS DUE TO DIFFERENT INTERPRETATIONS OF NSTS 22206. THEREFORE, THE ISSUE REMAINS OPEN.

REPORT DATE 2/26/88 C-1394
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11134X
NASA FMEA #: 05-6KF-2036-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11134
ITEM: RJDF1A F2 MANIFOLD DRIVER SWITCH 8

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 2 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE [ N / ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 2 /1R ] [ P ] [ P ] [ P ] [ A ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
Adequate [ ]
Inadequate [ ]

REMARKS:
LOSE CAPABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTERS.

REPORT DATE 2/26/88 C-1395
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11135X
NASA FMEA #: 05-6KF-2035-1

SUBSYSTEM: MDAC
MDAC ID: 11135
ITEM: RJDF2A F3 MANIFOLD LOGIC SWITCH 5

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
</tbody>
</table>

| NASA  | [ 3 /1R ] | [ P ] | [ P ] | [ P ] | [ ] |
| IOA   | [ 2 /1R ] | [ P ] | [ P ] | [ P ] | [ X ] |
| COMPARE | [ N / ] | [ ] | [ ] | [ ] | [ N ] |

RECOMMENDATIONS: (If different from NASA)

| [ 2 /1R ] | [ P ] | [ P ] | [ P ] | [ A ] |

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTER.

REPORT DATE 2/26/88 C-1396
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11136X
NASA FMEA #: 05-6KF-2035-2

SUBSYSTEM: FRCS
MDAC ID: 11136
ITEM: RJDF2A F3 MANIFOLD LOGIC SWITCH 5

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td></td>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE</td>
<td>[ /N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

*CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE ALONE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11137X
NASA FMEA #: 05-6KF-2035-2
NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11137
ITEM: RJDF2A F3 MANIFOLD LOGIC SWITCH 5

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT HDW/FUNC</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>NASA [ 3 /1R ]</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>IOA [ 3 /3 ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>COMPARE [ /N ]</td>
<td>[ N ]</td>
<td>[ N ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)

[ 3 /3 ] [ ] [ ] [ ] [ ]

(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)

ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:

THIS FAILURE ALONE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1398
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11138X
NASA FMEA #: 05-6KF-2035-2

SUBSYSTEM: FRCS
MDAC ID: 11138
ITEM: RJDF2A F3 MANIFOLD LOGIC SWITCH 5

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

NASA [3 /1R] [P] [P] [P] [ ] [ ] *

IOA [3 /1R] [P] [P] [P] [P] [ ]

COMPARE [ / ] [ ] [ ] [ ] [ ] [ ] [ ]

RECOMMENDATIONS: (If different from NASA)
[3 /3] [ ] [ ] [ ] [ ] [ ]
(ADD/DELETE)

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
THIS FAILURE ALONE HAS NO EFFECT.

ISSUE NOT RESOLVED AT MEETING WITH THE SUBSYSTEM MANAGER ON 1/20/88.

REPORT DATE 2/26/88 C-1399
APPENDIX C
ASSESSMENT WORKSHEET

ASSESSMENT DATE: 1/29/88
ASSESSMENT ID: FRCS-11139X
NASA FMEA #: 05-6KF-2035-1

NASA DATA:
BASELINE [ ]
NEW [ X ]

SUBSYSTEM: FRCS
MDAC ID: 11139
ITEM: RJDF2A F3 MANIFOLD DRIVER SWITCH 5

LEAD ANALYST: D. HARTMAN

ASSESSMENT:

<table>
<thead>
<tr>
<th>CRITICALITY FLIGHT HDW/FUNC</th>
<th>REDUNDANCY SCREENS</th>
<th>CIL ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{NASA} [3/1R] )</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>( \text{IOA} [2/1R] )</td>
<td>[ P ]</td>
<td>[ P ]</td>
</tr>
<tr>
<td>COMPARE ( [N/] )</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS: (If different from NASA)
\( [2/1R] \) [ P ] [ P ] [ P ] [ A ]

* CIL RETENTION RATIONALE: (If applicable)
ADEQUATE [ ]
INADEQUATE [ ]

REMARKS:
LOSE CAPABILITY TO EXPEL PROPELLANTS TO MEET CG LIMITS.

ISSUE IS TIED TO THE IOA HARDWARE CRITICALITY FOR THE FAILED OFF THRUSTER.

REPORT DATE 2/26/88 C-1400