

70

*3023042

OCT 30 '02

WC 150 USA

PROCESSING OPERATIONS CONTROL OMI PLANNING SHEET



Wad Number S6016-J09-R01	SITE VAB HB1	Elem CD B	End Item BI-116	DATE: 09/24/2002 TIME: 08:41:18
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Title: ET/SRB PRE-ROLLOUT INSPECTIONS	Sub Element/Zone
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Project Work Order No.	Hazard: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	SFOC Safety N/A WC 150 USA OCT 29 '02	<input checked="" type="checkbox"/> Local Copy <input type="checkbox"/> Firing Room Copy
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Authorizing Document BI116-058(ADD)	Material & Equipment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	MICR Req'd <input type="checkbox"/> Yes <input type="checkbox"/> No	OMRS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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PERFORM THE FOLLOWING:

Pre-Ops Setups

Task	Operation Number	Seq	Steps	Task	Operation Number	Seq	Steps
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OPS Support

Task	Operation Number	Seq	Steps	Task	Operation Number	Seq	Steps
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Operating Instructions

Task	Seq	Steps	Task	Seq	Steps
	010			090	
	020			100	
	030			110	
	040			120	
	050			130	
	060			140	
	070			150	
	080			E1	

Post Ops

Task	Operation Number	Seq	Steps
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Appendices

Task	Seq
N/A	

Subtask WAD's

N/A

Planner LISA RUTKOWSKI	WC 150 USA OCT 29 '02	Ext 0746	QC Closure	Date 12-9-02	Page 1 OF 1
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Rev'D
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OMI TASK CLOSEOUT CHECKLIST

SPEARS, 112

OMI No. <i>56016 J-09</i>	Run No. <i>1</i>	Task Control No. (TCN) <i>3023042</i>
Start Date <i>5 DEC 02</i>	Completion Date <i>6 DEC 02</i>	Closure Date <i>DEC 02</i>
		
1. Deviation Index: Verify total number of deviations agree with index. Verify entry is correct into OMI.	QC/Eng. <i>N/A</i>	Date <i>N/A</i>
2. Constraints: Verify all constraints are cleared.		<i>DEC 8 2002</i>
3. IPR's: Verify that all IPR's are closed or upgraded to problem reports or dispositioned as no constraint to OMI closure and incorporated in central IPR system and a copy of the central IPR sort attached.		<i>DEC 8 2002</i>
4. Verify that material and equipment requirement list enclosed (if applicable).	<i>N/A</i>	<i>N/A</i>
5. OMI: Verify that all pages or verification sheets are completed, stamped, and dated in the lower left/right hand corners.		<i>DEC 8 2002</i>
6. OMI: Verify that all miscellaneous documents/procedures have sequence number referenced and stamped; e.g., photos, sample results, etc.		<i>DEC 8 2002</i>
7. Planned task/OMI satisfactorily completed. OPR: <i>[Signature]</i> <i>ETM-52</i> <i>12-9-02</i>		<i>DEC 8 2002</i>

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SPERS, 113

ET/SRB PRE-ROLLOUT INSPECTIONS

Element/End Item: **ET/SRB**
Flow/Usage: **ALL**
Facility: **VAB HB1, VAB HB3**
Design Center Concurrence: **MSFC**
Category: **B**
OPR: **ETM**
TTL ORG: **QC**

**This document contains
HAZARDOUS operations.**

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1.0 INFORMATION

1.1 Objective

Provide instructions for performing a visual inspection of the ET/SRBs and the various levels along with the MLP zero surface area for discrepancies or any thing that could impair roll out and cause damage.

1.2 Special Instructions All Operations

1. Discrepancies found during this inspection shall be documented per SPI QA-001. Provide clear definition as to location, part name, dimensions and axis when writing PR/DRs. Notify the responsible engineering group of the discrepancies found. PR conditions shall be handled as a stand alone item and no constraint to completing the inspection of that level.
2. Inspection shall be performed concurrently by SFOC and Gov't. Quality Inspectors.
3. Inspection will begin at 'C' Level in operation no. 20. When all 'C' levels are finished, the platforms for this level will be retracted and the inspection will continue at 'E' Level. After all of the 'E' levels are complete and platforms are retracted, then inspection will begin on 'B' Level. When completed, the platforms for this section will be retracted. This inspection will inspect each section of levels at a time, working downward thru 'D' level. When completed, the platforms will be retracted. Inspection of a Level can only begin when the levels above it are complete and the platforms have been retracted. Zero Level of the MLP will be inspected last.
4. All verifications in this OMI shall be made with the understanding that platform retraction will follow this WAD and that entry of personnel for platform positioning will not invalidate this inspection.
5. Visual aids, including binoculars will be used to assist in inspection of areas that are not accessible and more than eight feet away.
6. Poor house keeping practices and unsafe conditions shall be noted and the Operations Supervisor notified for correction.
7. Joint interface bond lines discontinuities between K5NA and

adjoining material due to shrinkage are acceptable if the separation does not exceed more than half of the specified material thickness at that location.

8. After initial platform inspections are completed, a cursory inspection may be required prior to platform being retracted.
9. This OMI requires an annual certification for Process Safety Management (PSM) as directed by SPI SF-501 (8) K.

1.3 Operations List

Operation		Shop/ Cntl Rm Console	OPR	Haz (Y/N)	Duration (Hrs)
No.	Title				
10	TASK TEAM READINESS	QC/ NONE	ETM	N	1.0
20	PLATFORM C-2 INSPECTION	QC/ NONE	ETM	N	1.0
30	PLATFORM C-MAIN INSPECTION	QC/ NONE	ETM	N	1.0
40	PLATFORM E-ROOF INSPECTION	QC/ NONE	ETM	N	0.5
50	PLATFORM E-MAIN INSPECTION	QC/ NONE	ETM	Y	2.0
60	PLATFORM B ROOF INSPECTION	QC/ NONE	ETM	N	0.5
70	PLATFORM B-2 INSPECTION	QC/ NONE	ETM	N	0.5
80	PLATFORM B-MAIN INSPECTION	QC/ NONE	ETM	N	0.5
90	PLATFORM D-ROOF INSPECTION	QC/ NONE	ETM	N	0.5
100	PLATFORM D-3 ROOF INSPECTION	QC/ NONE	ETM	N	0.5
110	PLATFORM D-2 NORTH INSPECTION	QC/ NONE	ETM	N	1.0
120	PLATFORM D-2 SOUTH INSPECTION	QC/ NONE	ETM	N	1.0
130	PLATFORM D-MAIN INSPECTION	QC/ NONE	ETM	N	1.0
140	MLP ZERO LEVEL INSPECTION	QC/ NONE	ETM	Y	1.0

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150	PLATFORM / FLIGHT HARDWARE VISUAL WALKDOWN INSPECTION	QUAL/ NA	ETM	N	2.0
E1	EMERGENCY INSTRUCTIONS	/			

2.0 SAFETY INFORMATION

2.1 Hazards

Personnel required to be in confined space.	Operation 50, 140
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2.4 Reference Safety Documentation

Number	Rev	Title
KHB 1710.2	LI	KSC Safety Practices Handbook
GSOP 5400	LI	Ground Safety Operating Procedure

3.0 STAGING REQUIREMENTS

4.0 PLANNING REQUIREMENTS

OIR Required Yes [], No [X]

Predecessors: None

Successors: None

Configuration Required: None

4.4 Support Services, Commodities, and Equipment

4.4.8 Services

SGS Organization

Operation/Step

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FIRE	E1-1
MED	E1-1
FIRE	E1-2
MED	E1-2

5.0 CONFIGURATION ACCOUNTING AND VERIFICATION

5.1 Specific OMRS Requirements Satisfied by this TOP

OMRS NO.	NOMENCLATURE/ EFFECTIVITY	SEQ-STEP (CAP)
B08SB0.061-A (1)	NOSE CONE/FRUSTUM VENT INSPECTION L02 B053-999	40-002
B08SB0.061-B (1)	SYSTEMS TUNNEL VENTS INSPECTION L02 B053-999	90-004
B08SB0.061-C (1)	FWD BSM CAVITY DRAIN INSPECTION L02 B053-999	40-003
B08SB0.061-D *PLAT D-2N (1) *PLAT D-2S	UPPER STRUT VENT/DRAIN INSPECTION L02 B053-999	110-007 120-006
B08SB0.061-E *PLAT D-2N (1) *PLAT D-2S	LOWER STRUT VENT/DRAIN INSPECTION L02 B053-999	110-007 120-006
B08SB0.061-F *PLAT D-2N (1) *PLAT D-2S	DIAGONAL STRUT VENT/DRAIN INSPECTION L02 B053-999	110-007 120-006
B08SB0.061-G (1)	BAROSWITCH PORT INSPECTION L02 B053-999	40-004
B08SB0.061-H (1)	RSS FEEDTHROUGH CAVITY INSPECTION L02 B053-999	50-013
B08SB0.070-A	AFT SKT F/T DRAIN HOLE INSP PRE R/O L01 B011-999	140-004
B08ST0.010 *PLAT C-M	STRUCT ASSESSMENT WALKDOWN INSPECTION	40-006

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SPARS. 117

(1)	L01	B025,027,028	50-020
*PLAT E-M			
		B030-999	110-003
*PLAT D-2N			
			120-003
*PLAT D-2S			
B09TP0.010		TPS INTEGRITY	40-005
*PLAT E-R			
(1)	L01	B025,027-999	50-021
*PLAT E-M			
			60-003
*PLAT B-R			
			70-002
*PLAT B-2			
			80-002
*PLAT B-M			
			90-003
*PLAT D-R			
			100-002
*PLAT D-3R			
			110-002
*PLAT D-2N			
			120-002
*PLAT D-2S			
			130-002
*PLAT D-M			
			140-003
*MLP 0 LVL			
B56BS0.020		FORWARD BSM AEROHEAT SHIELD VERIFICATIO	40-006
	L01	B112-999	
G22FCMM00.016		GND CARRIER ASSY/UMB TUNNEL WELDMENT	140-015
	L01	GOF1-90	
G22FCMM00.020		GND CARRIER SAFETY BRACKET ASSEMBLIES	140-015
*PART 2			
	L01	GOF1-90	
T09QAL.020		ET TPS INSPECTION PRIOR TO ROLLOUT	20-007
*PLAT C-2			
(1)	L05	T54-999	30-004
*PLAT C-M			
			40-006
*PLAT E-R			
			50-007
*PLAT E-M			
			60-013
*PLAT B-R			
			70-005
*PLAT B-2			
			80-005
*PLAT B-M			
			90-007

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*PLAT D-R			100-008
*PLAT D-3R			110-015
*PLAT D-2N			120-014
*PLAT D-2S			
T09QAL.060	EXAMINE LH2 FEEDLINE BELLOWS DRAIN		110-017
(1)	L01 T23,27-29,31-999		
T09QAL.080-A	LH ET/ORB DISC DRAIN HOLE INSP		110-023
(1)	L01 T23,27-29,31-999		
T09QAL.080-B	RH ET/ORB DISC DRAIN HOLE INSP		120-017
(1)	L01 T23,27-29,31-999		
T09QAL.090-A	LO2 CABLE TRAY DRAIN INSP		50-004
(1)	L02 T60-999		
T09QAL.090-B	LH2 CABLE TRAY DRAIN INSP		110-018
(1)	L02 T60-999		
T09QAL.090-C	LH VERT STRUT TO SRB C/T DRAIN INSP		110-006
(1)	L02 T60-999		
T09QAL.090-D	RH VERT STRUT TO SRB C/T DRAIN INSP		120-005
(1)	L02 T60-999		
T09QAL.090-E	RH VERT STRUT C/T DRAIN INSP		120-005
(1)	L02 T60-999		
T09QAL.090-F	HE INJECT BOX DRAIN INSP		120-005
(1)	L02 T60-999		
T09QAL.100-A	AERO VENT VISUAL INSPECT		50-011
(1)	L01 T23,27-29,31-999		
T09QAL.100-B	I/T FAIRING VISUAL INSPECT		50-009
(1)	L01 T23,27-29,31-999		
T41QAL.010	INSP LH2 FDLN BURST DISC		110-019
	L01 T23,27-29,31-999		
T41QAL.020	INSPECT LH2 RECIRC LINE BURST DISC		110-020
	L01 T23,27-29,31-999		

5.2 General OMRS Requirements Applicable to this TOP

OMRS NO.	NOMENCLATURE/ EFFECTIVITY	SEQ-STEP (CAP)
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SPRARS. 110

T00GEN.040-X AFT HARDPOINT PHOTOS
 L06 T87-999;G

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T00GEN.070 PRE-ROLLOUT PHOTOGRAPHS
 L02 T85-999;G

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SPRACS, 110

OPERATION 10 TASK TEAM READINESS

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 1.0

- 10-1** Remove all RCAS -2400 film, along with any tape from the safety poles and chains that were used to provide protection over the Nose Cone area. Discard all removed material in a proper receptacle.

Not Performed: Y/A

DEC 5 02 T: 3703

- 10-2** Verify the following personnel are ready to proceed with the walk down inspection.

- SFOC QUALITY
- NASA QUALITY

Qw: SPC 511

DEC 5 02

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***** End of Operation 10 *****

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SPEARS, 120

OPERATION 20 PLATFORM C-2 INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 1.0

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

20-1 Inspect ET for obstructions or interface connections that would restrict move or cause damage.

DEC 5 02

Qw: _____ N: _____



20-2 Inspect the ET Nose Cone area and verify it is free of loose and missing hardware.

DEC 5 02

Qw: _____ N: _____



DEC 5 02

NOTE

Noted requirement is satisfied by the following steps annotated with OMRS code.

OMRS T09QAL.020-1 *PLAT C-2

20-3 Inspect the GOX vent louver assemblies (2) for cracks, voids, visible damage and there are no obstructions in the louver areas.

OMRS T09QAL.020-1 *PLAT C-2

② Ref: PR-ET-ST-0019

DEC 5 '02
Qw:  N:  
12/6/02 12/6/02

20-4 Inspect the composite material on the nose cone for scratches, broken fibers and cuts. If any are found, verify they do not extend to fibers. Inspect nose cone area for delaminations, voids, and any visible damage.

DEC 5 '02
Qw:  N: 

20-5 Inspect TPS on LO2 Ogive area for cracks, voids and visible damage. Verify no missing primer paint in the GOX vent footprint areas (-Y/+Y). Inspect the cable tray assembly for any visible damage.

OMRS T09QAL.020-1 *PLAT C-2

DEC 5 '02
Qw:  N: 

20-6 Inspect vent areas on LO2 cable tray sliding joints and verify free of foreign objects and debris. Inspect the TPS on the cable tray assembly for any visible damage.

OMRS T09QAL.020-1 *PLAT C-2

DEC 5 '02
Qw:  N: 

① Corrosion/contamination found on both louvers, awaiting engineering evaluation 

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DEC 5 '02

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SPRARS, 121

20-7 Noted requirement complete:

OMRSD T09QAL.020-1 *PLAT C-2

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USA

20-8 Take digital photos of all TPS areas and the -Y and +Y vent louver assemblies inspected in the previous steps.

W/O No. 55476

OMRS (general) T00GEN.040-X

DEC 8 02

Qw:



20-9 Inspect vent areas at base of the Nose Cone Fairing and verify free of debris and obstructions.

Qw:



N:



DEC 8 02

DEC 8 02



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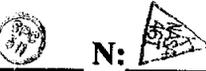
20-10 Verify GO2 Pressline/Barry mount is free of visible damage, foreign objects and debris.

DEC 5 '02

Qw: 

20-11 Perform C-2 platform inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

DEC 5 '02

Qw: 

20-12 Take digital photos of all of the -Y and +Y TPS surfaces of the GOX vent seal footprint areas, the Nose Cone, Cable Tray Fairing and the GOX Pressline on this level.

W/O No. 55476

OMRS (general) T00GEN.040-X

DEC 5 '02

Qw: 

20-13 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

T:  Qw: 

*** End of Operation 20 ***

DEC 5 '02



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SPRARS: 122

OPERATION 30 PLATFORM C-MAIN INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 1.0

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

- 30-1 **Inspect** ET for obstructions or interface connections that would restrict move or cause damage .

DEC 5 02

Qw:



N:



NOTE

Noted requirement is satisfied by the following steps annotated with OMRS code.

OMRS T09QAL.020-1 *PLAT C-M

- 30-2 **Inspect** TPS on LO2 cable tray assemblies for cracks, voids, and visible damage. Look at areas under cable trays and GOX Press line and **verify** free of foreign material.

DEC 5 02



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OMRS T09QAL.020-1 *PLAT C-M

DEC 5 02 Qw:  N: 

30-3 Inspect TPS on LO2 Tank for cracks, voids, and visible damage.

OMRS T09QAL.020-1 *PLAT C-M

DEC 5 02 Qw:  N: 

30-4 Noted requirement complete:

OMRSD T09QAL.020-1 *PLAT C-M USA VM C98

30-5 Take digital photos of all TPS areas (ET) inspected in the previous steps.

W/O No. 55477

OMRS (general) T00GEN.070

DEC 5 02 Qw: 

30-6 Inspect Vent areas on LO2 cable tray sliding joints and verify they are clear of debris and obstructions.

DEC 5 02 Qw:  N: 

30-7 Inspect the GO2 Pressline for visible damage and loose hardware.

DEC 5 02 Qw:  N: 

30-8 Perform C-Main platform inspection. Verify all loose equipment located within three feet of flight hardware is removed or secured with rope. Inspect the platform levels for visible foreign objects and debris.

DEC 5 02 Qw:  N: 

30-9 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

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SPRARS. 123

T:  Qw: 

30-10 Notify ET / SRB OPS Management that the inspection of the levels in this operation are complete and the platforms can be retracted.

T:  Qw: 

*** End of Operation 30 ***



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SPEARS: 124

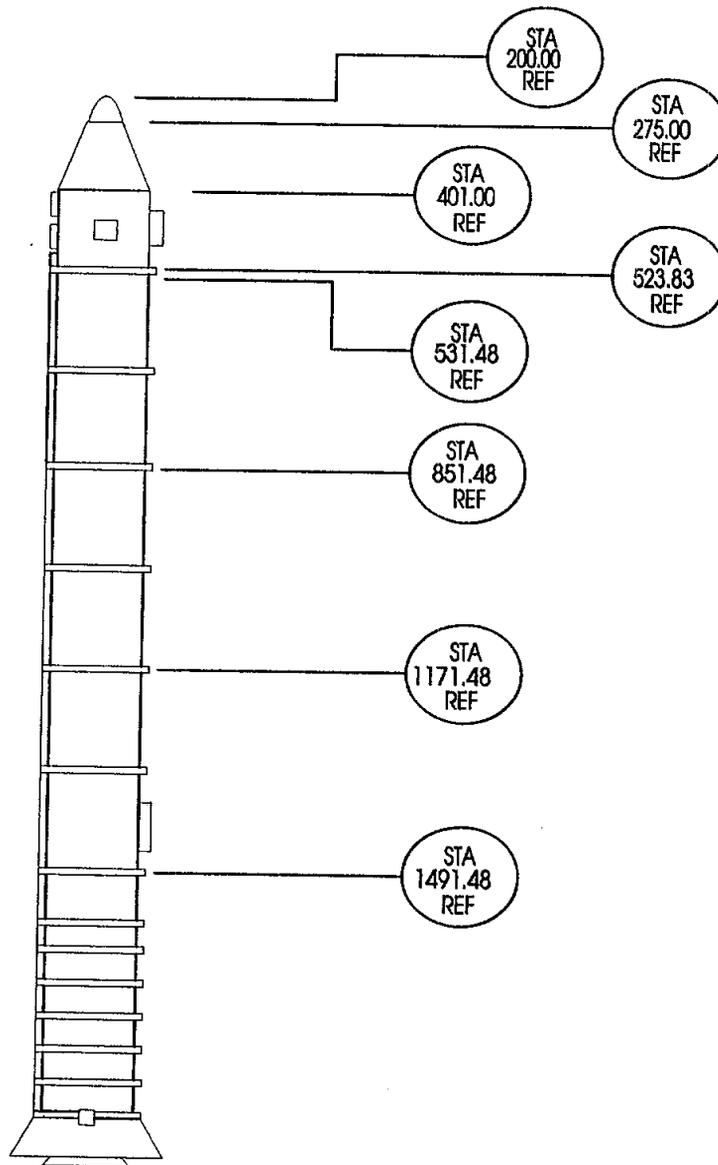
OPERATION 40 PLATFORM E-ROOF INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.



**Figure 40-1: SRB XB STA Locations
(For Reference Only)**

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SPARS: 125

- 40-1 Verify both sides, (North / South) of the platforms directly above are fully retracted and access is allowed to begin this inspection.

Qw: 
DEC 8 02

- 40-2 Inspect the three frustum vent holes at STA 299 and verify they are clear of any obstructions or foreign material. Refer to Figure 40-1: SRB XB STA Locations.

OMRSD B08SB0.061-A-1

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098

LH SRB 
Qw: _____ N: 
DEC 8 02

RH SRB 
Qw: _____ N: 
DEC 8 02

- 40-3 Inspect the two forward BSM cavity drain holes located at STA 317, and verify they are clear of any obstructions or foreign material. Refer to Figure 40-1: SRB XB STA Locations.

OMRSD B08SB0.061-C-1

USA
VM
098

LH SRB 
Qw: _____ N: 
DEC 8 02

RH SRB 
Qw: _____ N: 
DEC 8 02

- 40-4 Inspect the six barometric switch ports at STA 334.5 and verify they are clear of any obstructions or foreign material. Refer to Figure 40-1: SRB XB STA Locations.

OMRSD B08SB0.061-G-1

USA
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LH SRB 
Qw: _____ N: 
DEC 8 02

RH SRB 
Qw: _____ N: 
DEC 8 02

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40-5 Verify no visible damage to TPS and TPS topcoat on following SRB structures. Verify no visible peeling paint, cracking, gouges, debonds or missing material.

1. Nose Cone
2. Frustum

OMRSD B09TP0.010-1 *PLAT E-R

JUL 25 09 58

LH SRB

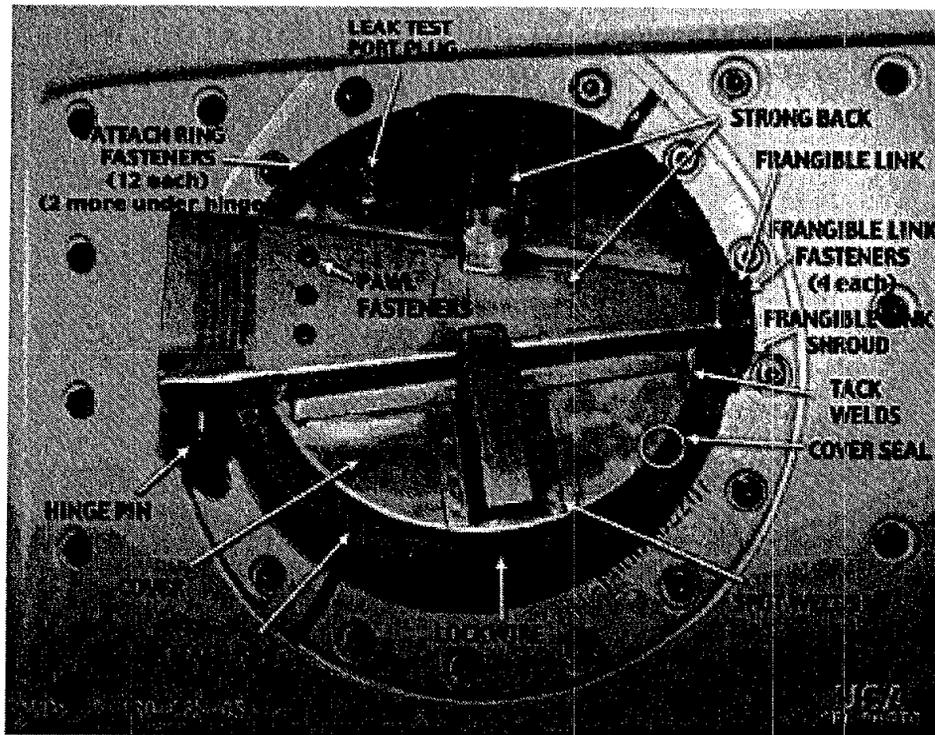
Qw:  N: 

RH SRB

DEC 8 02
Qw:  N: 
DEC 8 02

20 8 2002

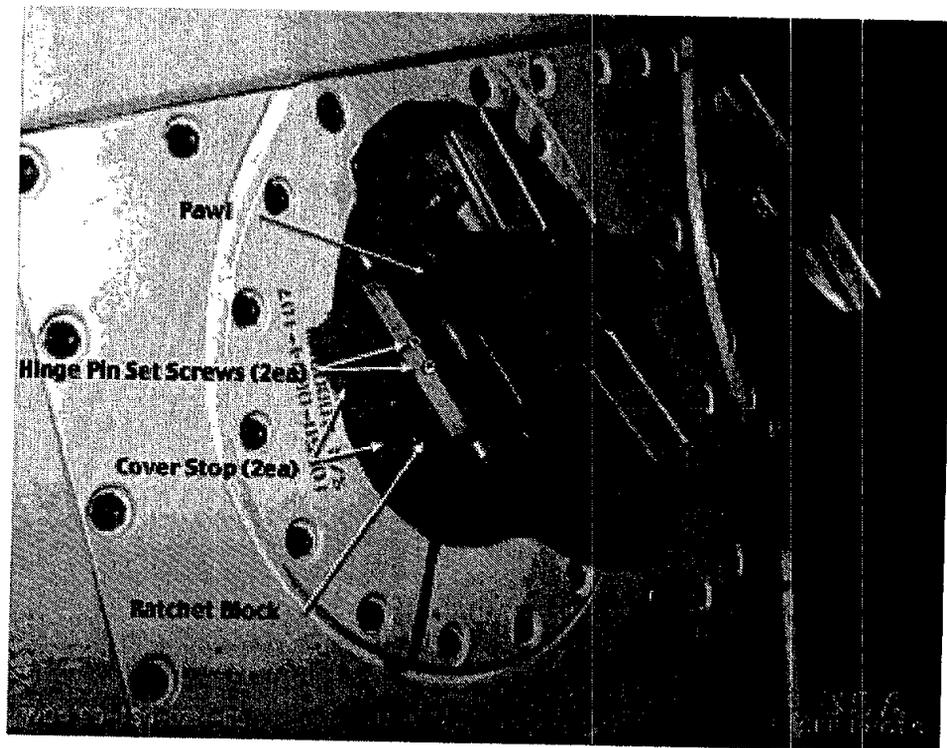

6-26-02



S6016-F-003

Figure 40-2: SRB BSM View (Typical)
(For Reference Only)

6-26-02



S6016-F-004

**Figure 40-3: SRB BSM View 2 (Typical)
(For Reference Only)**

NOTE

Safety wire and attach ring covered by sealant are acceptable. Two attach ring fasteners are located under the hinge and can be viewed looking under the ratchet block.

40-6

Inspect the four each forward Booster Separation Motors for the following; **Reference Figures 40-2 and 40-3 for nomenclature.**

A. Safety wire integrity:

- | | |
|----------------------------------|---|
| 1. Attach ring fasteners (14 ea) | No visible broken or missing safety wire. |
| 2. Leak test port plug | No visible broken or missing safety wire. |
| 3. Frangible link shroud | No visible broken or missing safety wire. |
| 4. Frangible link bolts (4 ea) | No visible broken or missing safety wire. |

B. Damage:

- | | |
|------------------------------------|---|
| 1. Strong Backs | No visible cracks, dents, or evidence of impact. No debris in strong backs. Debris in strong backs can be removed without Eng. Disposition. |
| 2. Cover | No visible cracks, dents, or evidence of impact. Surface waviness on cover is acceptable. |
| 3. Hinge pin | No visible cracks on welds. |
| 4. Pawl fasteners (3 ea) | Intact. |
| 5. Hinge pin set screw (2 ea) | Intact. |
| 6. Pawl, ratchet block, cover stop | No visible cracks, dents, or evidence of impact. No debris in cavity. Debris in pawl cavity can be removed without Eng. Disposition. |
| 7. Attach Ring | No evidence of impact. |

OMRSD B56BS0.020

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LH SRB  Qw: _____ N: 
DEC 8 02

RH SRB  Qw: _____ N: 
DEC 8 02

40-7 Inspect the following SRB components and verify they are free of visible corrosion or damage.

1. Forward Assembly (exposed structure area only)
2. Flight instrumentation islands.

OMRSD B08ST0.010-1 *PLAT C-M

USA
VM
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LH SRB  Qw: _____ N: 
DEC 8 02

RH SRB  Qw: _____ N: 
DEC 8 02

40-8 Inspect ET for obstructions or interface connections that would restrict move or cause damage.

Qw:  _____ N: 
DEC 8 02

40-9 Inspect ET TPS areas for cracks, voids, and visible damage.

OMRSD T09QAL.020-1 *PLAT E-R

USA
VM
098

Qw: _____ N: _____

Take digital photos of all TPS areas (ET) inspected in the previous steps.

OMRS (general) T00GEN.070

4r 1-7 W/O No. 55480

Qw:  _____
DEC 8 02

SPC 246

ME
OB
12-6-02

40-7

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SPEAR, 128

①
11
40-8

Verify LO2 cable tray assemblies are free of visual damage and loose hardware. Inspect areas under cable tray for foreign material.

Qw:  N: 
12-6-02

①
12
40-9

Inspect GO2 Pressline/Barry Mount for visible damage, foreign objects and debris.

Qw:  N: 
12-6-02

① P&I
ME
08
12-6-02

①
13
40-10

Verify LO2 vent areas on cable tray (sliding joints) are clear of debris and obstructions.

Qw:  N: 
DEC 8 02

①
14
40-11

Perform E-roof platform inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

Qw:  N: 
DEC 8 02

①
15
40-12

When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

T:  Qw: 
DEC 8 02

128
DEC 8 2002


NOTE

If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platform has been retracted no inspection is required.

D

16
40-13

Verify no visible damage to ET/SRB external TPS structure and components. Perform level inspection and verify all loose equipment is removed or secured and no debris is present.

Qw: N/A N: N/A

Not Performed: _____



D

17
40-14

When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

DEC 8 02

T: N/A Qw: N/A

Not Performed: _____

3032
781



DEC 8 02

*** End of Operation 40 ***

D Pd I
ME
OB
12-6-02



DEC 8 02

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APPROVED**

SPRABG - 123

OPERATION 50 PLATFORM E-MAIN INSPECTION

Shop: QC

Cntrl Rm Console: NONE

OPR: ETM

Zone: NA

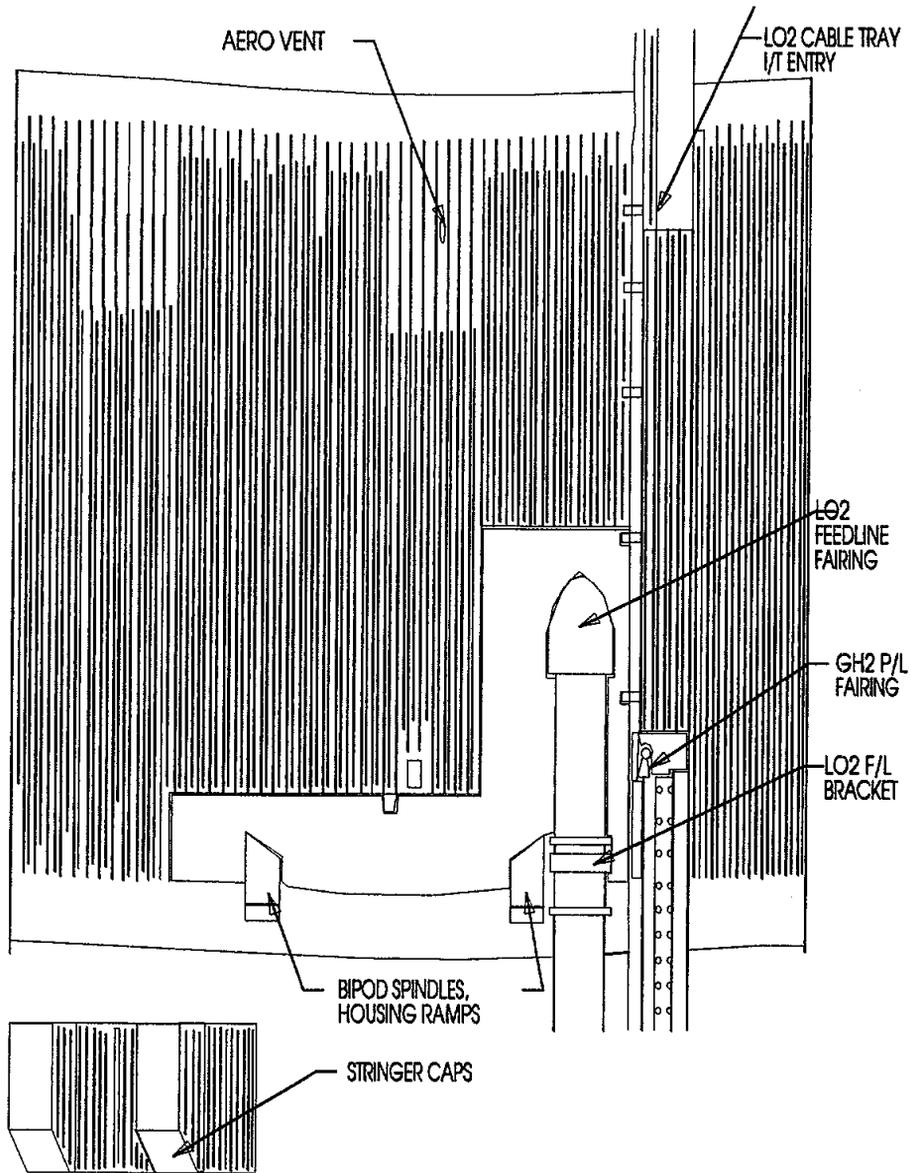
Hazard (Y/N): Y

Duration (Hrs): 2.0

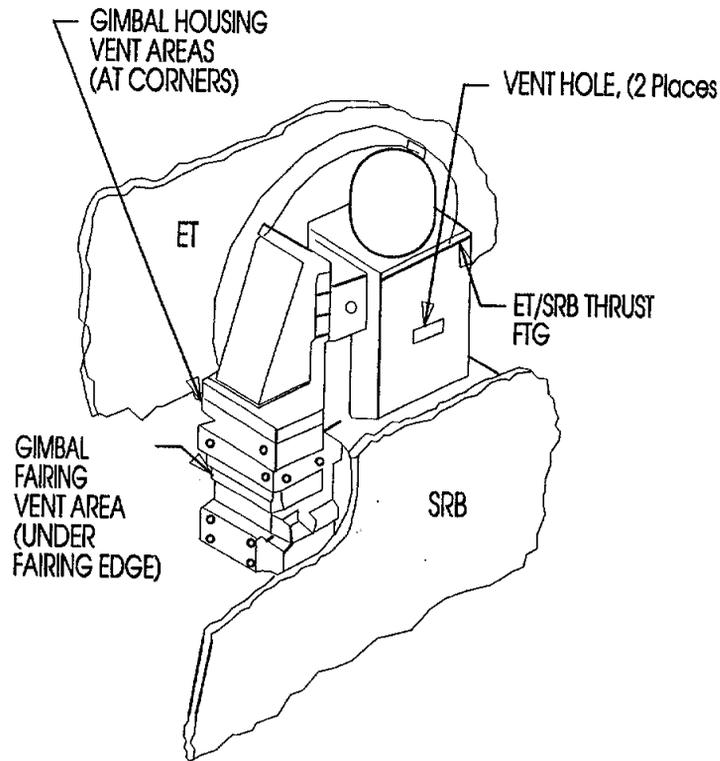
NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.



**Figure 50-1: Intertank External
(For Reference Only)**



**Figure 50-2: ET/SRB Thrust Fitting Area
(For Reference Only)**

50-1 **Inspect** ET for obstructions or interface connections that would restrict move or cause damage .

Qw:  N: 

50-2 **Inspect** ET/SRB forward attach points on ET tank structure for visible damage.

DEC 6 02
Qw:  N: 
DEC 8 02

DEC 8 02


50-3 Inspect the LO2 Feedline, Feedline Bracket, GO2/GH2 Presslines and Ice Frost Ramps for visible damage and foreign objects debris as is accessible from the platforms. Use binoculars as required for those areas out of reach. Visual inspection of these components at adjacent platforms levels is applicable because it allows different angles/perspectives of those components.

Qw:  N: 

DEC 8 02

50-4 Inspect LO2 cable tray drain hole in LO2 cable tray support at intertank entry area for debris and obstructions.

OMRSD T09QAL.090-A-1

USA
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098

Qw:  N: 
DEC 8 02

50-5 Verify vent areas on LO2 cable tray (sliding joints) are clear of debris and obstructions.

Qw:  N: 
DEC 9 02

50-6 Inspect TPS on LO2 Tank for cracks, voids and visible damage.

Inspect GOX pressure line for damage.

Qw:  N: 

DEC 8 02

DEC 8 02

SPC
246

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SPEARS, J09

50-7 Inspect TPS on LO2 feedline, LO2 feedline fairing, forward ET/SRB bolt catchers (+Y/-Y), stringer caps for cracks, voids, and visible damage. Refer to Figure-Intertank External

OMRSD T09QAL.020-1 *PLAT E-M

US
VA
360

Qw:  N: 

DEC 8 02

50-8 Take digital photos of all TPS areas (ET) inspected in the previous steps.

W/O No. 55481

fr. 8-18

OMRS (general) T00GEN.070

US
VA
360

Qw: 

DEC 8 02

50-9 Inspect Intertank fairings (LO2 feedline and GH2 press line) from outside intertank and verify clear of debris and blockage.

OMRSD T09QAL.100-B-1

US
VA
360

Qw:  N: 

DEC 8 02

50-10 Inspect GUCP and verify:

1. LOX vent valve actuation line removed.
2. Hydrogen vent valve actuation line removed.
3. Electrical interface connections to facility are disconnected.

Qw:  N: 

DEC 8 02

DEC 8 02


50-11 Verify Aero vents (2) are free of debris and blockage. Refer to figure Intertank External

OMRSD T09QAL.100-A-1 ^{USA}_{VMA}_{09B}

Qw:  N: 
DEC 6 02

50-12 Inspect ET/SRB Thrust fitting area and verify the following are clear of debris and obstructions. Refer to Figure ET/SRB Thrust Fitting area.

1. Vent holes between ET/SRB forward attach fittings.
2. Vent areas on gimbal housing and gimbal housing fairing.

+Y
Qw:  N: 
DEC 6 02

-Y
Qw:  N: 
DEC 6 02

50-13 At the Forward Skirt Banjo area, verify the ET/SRB RSS feed thru cavity drain hole is clear of obstructions.

OMRSD B08SB0.061-H-1 ^{USA}_{VMA}_{09B}

LH SRB
Qw:  N: 

RH SRB
Qw:  N: 
DEC 6 02

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SPENRS, 102

- 50-14 Verify ET/SRB RSS crossover forward attach fitting separation plane is free of RTV (no RTV should be bonded to disconnect assembly).

LH SRB
Qw:  N: 
DEC 6 02

RH SRB
Qw:  N: 
DEC 6 02

- 50-15 Inspect and verify no debris in ET/SRB thrust post and RSS crossover areas.

LH SRB
Qw:  N: 
DEC 6 02

RH SRB
Qw:  N: 
DEC 6 02

WARNING

Entry into a confined space may result in a possible lack of oxygen. Entry prior to ventilation may result in personnel injury ranging from dizziness and lightheadedness to unconsciousness, suffocation and death. Toxic vapor levels shall be monitored and an adequate oxygen level maintained.

WCS001.a 03-19-01

- 50-16 Brief personnel of hazards involved and review applicable emergency instructions prior to entering forward skirts .

TTL: 
DEC 6 02

- 50-17 Purge forward skirt with air for 15 minutes minimum prior to entry and ventilate continuously.

T: 
DEC 6 02

50-18 Enter the SRB forward skirt (s) and perform the following.

1. Verify forward skirt internal access kit (A77-0158) is secured in place.
2. Verify all obvious debris and tools are removed from forward skirt (Do not remove access pads)
3. Verify all portable work lights are removed from forward skirt.
4. Close and secure the GSE forward skirt access door.

LH SRB
T:  Qw:  N: 
DEC 6 02

RH SRB
T:  Qw:  N: 
DEC 6 02

50-19 Perform visual inspection of forward skirt external surfaces, verify absence of any visible damage, tape, and magnetic station markers.

LH SRB
Qw:  N: 
DEC 6 02

RH SRB
Qw:  N: 
DEC 6 02

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SEARS, JCS

50-20 Inspect the following SRB components for visible corrosion and damage.

1. Forward assembly (exposed structure)
2. Range safety antenna

OMRSD B08ST0.010-1 *PLAT E-M

USA
VM
098

LH SRB

Qw:  N: 

RH SRB

DEC 8 02
Qw:  N: 

DEC 8 02

50-21 Verify no visible damage to TPS and TPS topcoat paint on the following SRB structures. Verify no visible peeling paint, cracking, evidence of contamination, gouges, debonds and missing material.

1. RSS antenna
2. Range safety crossover components
3. Frustum area
4. Forward skirt
5. Forward skirt thrust post
6. System tunnel

OMRSD B09TP0.010-1 *PLAT E-M

USA
VM
098

LH SRB

Qw:  N: 
DEC 8 02

RH SRB

Qw:  N: 

DEC 8 02

DEC 8 02

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APPROVED

50-22 Remove protective covers TSA-500-15-001 from LH and RH ET/SRB RSS fairing. Route the 2 removed covers to Integrated Ops.

T: 
DEC 8 02

50-23 Perform E-main platform inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

Qw:  N: 

50-24 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

T:  Qw: 

NOTE

If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platform has been retracted no inspection is required.

50-25 Verify no visible damage to ET/SRB external TPS structure and components. Perform level inspection and verify all loose equipment is removed or secured and no debris is present.

Qw: N/A N: N/A
Not Performed:  
DEC 9 02

DEC 8 02


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SPEARS: 124

50-26 When inspection of this area is complete, **install** tape along with an integrity placard sign across entrance openings.

T: N/A Qw: N/A

Not Performed:  

DEC 8 02

50-27 Notify ET / SRB OPS Management that the inspection of the levels in this operation are complete and the platforms can be retracted.

T:  Qw: 

DEC 8 02

*** End of Operation 50 ***

07-25-2002
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SPEARS, 135

OPERATION 60 PLATFORM B ROOF INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

- 60-1 Verify both sides, (North / South) of the platforms directly above are fully retracted and access is allowed to begin this inspection.

Qw:  N: 
DEC 8 02

- 60-2 Perform inspection of SRB external surfaces visible from platform B-Roof. Verify absence of visible damage, loose items, tape and magnetic station markers.

LH SRB
Qw:  N: 
DEC 8 02

RH SRB
Qw:  N: 
DEC 8 02

DEC 8 02


60-3 **Inspect** for visible damage to TPS and TPS topcoat on SRB system tunnel covers. **Verify** no visible peeling paint, cracking, evidence of contamination, gouges, debonds or missing material.

OMRSD B09TP0.010-1 *PLAT B-R

USA
VIA
098

LH SRB
Qw: SPC 421 N: 

RH SRB
DEC 6 02
Qw: SPC 421 N: 
DEC 6 02

60-4 **Remove** protective covers from following:

- Bipod strut (+Y) TL-0855-001
- Bipod strut (-Y) TL-0855-001
- Bipod ramp (+Y) TL-0853-00
- Bipod ramp (-Y) TL-0854-001
- L02 feedline TL-0859-001

T: 
DEC 6 02 DEC 6 02

60-5 **Inspect** ET for obstructions or interface connections that would restrict move or cause damage .

DEC 6 02 Qw: SPC 421 N: 

60-6 **Inspect** TPS on ET for cracks, voids, and visible damage.

DEC 6 02
Qw: SPC 421 N: 

60-7 **Verify** no visible damage to tank structure.

DEC 6 02
Qw: SPC 421 N: 

DEC 6 02

DEC 6 02

SPC 246

60-8 **Inspect** the LO2 Feedline, Feedline Bracket, GO2/GH2 Presslines and Ice Frost Ramps for visible damage and foreign objects debris as is accessible from the platforms. Use binoculars as required for those areas out of reach. Visual inspection of these components at adjacent platforms levels is applicable because it allows different angles/perspectives of those components.

Qw:  N: 

DEC 8 02

60-9 **Inspect** GH2 pressure line, LO2 feedline and GO2 pressure line for visible damage and loose hardware.

Qw:  N: 

DEC 8 02

60-10 **Verify** Vent leakage area on GH2 pressure line is unobstructed.

Qw:  N: 

DEC 8 02

60-11 **Verify** Vent areas on LH2 cable tray (sliding joints) are unobstructed.

Qw:  N: 

DEC 8 02

60-12 At the forward ET/ORB bipod fitting/strut area, **inspect** and **verify** the forward bipod struts are free of visible damage, loose hardware and foreign material. **Look** at areas with TPS and **verify** they are free of visible cracks, voids, or damage.

Qw:  N: 

DEC 8 02

SPC
246

DEC 8 02

60-13 Inspect TPS on the following areas for visible cracks, voids, and damage;

1. LH2 Intertank splice
2. Stringer caps
3. LO2 feedline bracket (STA 1129)
4. LO2 feedline
5. GH2 P/L fairing
6. Bipod struts
7. LH2 barrel
8. Bipod spindles, housing and ramps
9. LO2 feedline fairing

OMRSD T09QAL.020-1 *PLAT B-R

800
MA
US

SPC
421

ASA
SA
SA

Qw: _____ N: _____

DEC 8 02

60-14 Take digital photos of all TPS areas (ET) inspected in the previous steps.

OMRS (general) T00GEN.070

fr
1-16

W/O No. 55484

Qw: SPC 449

60-15 Perform B-roof platform inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

SPC
421

ASA
SA
SA

Qw: _____ N: _____

DEC 8 02

60-16 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

SPC
421

SPC
477

T: _____ Qw: _____

DEC 8 02

SPC
246

DEC 8 02

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SPARRS: 137

NOTE

If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platform has been retracted no inspection is required.

- 60-17** Verify no visible damage to ET/SRB external TPS structure and components. Perform level inspection and verify all loose equipment is removed or secured and no debris is present.

Qw: N/A N: N/A

Not Performed: _____



DEC 6 02

- 60-18** When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

T: N/A Qw: N/A

Not Performed: _____

DEC 6 02

*** End of Operation 60 ***



DEC 6 02

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SPEARS, 138

OPERATION 70 PLATFORM B-2 INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

- 70-1 Perform inspection of SRB external surfaces visible from platform B-2. Verify absence of visible damage, loose items, tape, and magnetic station markers

LH SRB  
 Qw: _____ N: _____
 DEC 6 02

RH SRB  
 Qw: _____ N: _____
 DEC 6 02

- 70-2 Inspect for visible damage to TPS and topcoat on SRB system tunnel covers. Verify no visible peeling paint, cracking, evidence of contamination, debonds or missing material..

OMRSD B09TP0.010-1 *PLAT B-2 

LH SRB  
 Qw: _____ N: _____
 DEC 6 02

RH SRB  
 Qw: _____ N: _____

70-3 Inspect ET for obstructions or interface connections that would impair rollout or cause damage.

Qw:  N: 

70-4 Verify all Red streamers have been removed.

DEC 6 '02

Qv: 

70-5 Inspect TPS on ET for cracks, voids, and visible damage.

DEC 6 '02

OMRSD T09QAL.020-1 *PLAT B-2

USA
VM
098

Qw:  N: 

70-6 Take digital photos of all TPS areas (ET) inspected in the previous steps.

DEC 6 '02

OMRS (general) T00GEN.070

W/O No. 55465
Fr. 17-22 DEC 6 '02

Qw: 

70-7 Inspect LH2 tank structure for visible damage.

DEC 6 '02

Qw:  N: 

70-8 Inspect LH2 cable tray assembly for visible damage and loose hardware.
Inspect areas under cable tray for foreign material.

Qw:  N: 

70-9 Inspect the LO2 Feedline, Feedline Bracket, GO2/GH2 Presslines and Ice Frost Ramps for visible damage and foreign objects debris as is accessible from the platforms. Use binoculars as is required for those areas out of reach. Visual inspection of these components at adjacent platforms levels is applicable because it allows different angles/perspectives of those components.

DEC 6 '02

Qw:  N: 
DEC 6 '02

DEC 9 '02



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SPEAR'S, 139

70-10 Inspect vent area on LH2 cable tray (sliding joints) and verify free of debris and obstructions.

DEC 8 '02 Qw:  N: 

70-11 Perform platform B-2 inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

DEC 8 '02 Qw:  N: 

70-12 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

T:  Qw: 
DEC 8 '02

NOTE
If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platforms have been retracted, no inspection is required.

70-13 Verify no visible damage to ET/SRB external TPS structure and components. Perform level inspection and verify all loose equipment is removed or secured and no debris is present.

DEC 8 '02 Qw: N/A N: N/A
Not Performed: 

70-14 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

DEC 8 '02 T: N/A Qw: N/A
Not Performed: 

*** End of Operation 70 ***

DEC 9 '02


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3 PERS: 140

OPERATION 80 PLATFORM B-MAIN INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

80-1 Perform inspection of SRB external surfaces visible from platform B-main. Verify absence of visible damage, loose items, tape and magnetic station markers.

DEC 8 02

LH SRB

Qw:  N: 

DEC 8 02

RH SRB

Qw:  N: 

80-2 Verify no visible damage to TPS and topcoat on SRB system tunnel covers. Verify no visible peeling paint, cracking, evidence of contamination, debonds or missing material.

OMRSD B09TP0.010-1 *PLAT B-M

USA
VIA
085

DEC 8 02

LH SRB

Qw:  N: 

DEC 8 02

RH SRB

Qw:  N: 

07-25-2002
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OMI S6016 J09
APPROVED

80-3 Inspect ET for obstructions or interface connection that would impair rollout or cause damage.

DEC 8 02 Qw:  N: 

80-4 Verify all Red streamers have been removed.

DEC 8 02 Qv: 

80-5 Inspect areas with TPS for cracks, voids, and visible damage.

OMRSD T09QAL.020-1 *PLAT B-M

USA
VM
098

DEC 8 02 Qw:  N: 

80-6 Take still videos of all TPS areas (ET) inspected in the previous steps.

OMRS (general) T00GEN.070

W/O No. 55486
10/12

DEC 8 02 Qw: 

80-7 Verify no visible damage to tank structure.

DEC 8 02 Qw:  N: 

80-8 Verify LH2 cable tray assembly is free of visible damage and loose hardware. Inspect areas under cable tray for foreign material.

DEC 8 02 Qw:  N: 

80-9 Inspect the LO2 Feedline, Feedline Bracket, GO2/GH2 Presslines and Ice Frost Ramps for visible damage and foreign objects debris as is accessible from the platforms. Use binoculars as required for those areas out of reach. Visual inspection of these components at adjacent platforms levels is applicable because it allows different angles/perspectives of those components.

DEC 8 02 Qw:  N: 

DEC 9 02

SPC
246

07-25-2002
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OMI S6016 J09
APPROVED

SPEARS, 141

80-10 Inspect vent area on LH2 cable tray (sliding joints) and verify unobstructed.

DEC 8 02 Qw:  N: 

80-11 Perform platform B-main inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

DEC 8 02 Qw:  N: 

80-12 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

DEC 8 T:  Qw: 

NOTE
If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platform has been retracted no inspection is required.

80-13 Verify no visible damage to ET/SRB external TPS structure and components. Perform level inspection and verify all loose equipment is removed or secured and no debris is present.

DEC 8 02 Qw: N/A N: N/A
Not Performed:  

80-14 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

DEC 8 02 T: N/A Qw: N/A
Not Performed:  

DEC 9 02



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80-15 Notify ET / SRB OPS Management that the inspection of the levels in this operation are complete and the platforms can be retracted.

T:  Qw: 

DEC 6 02

*** End of Operation 80 ***


DEC 9 02

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SPERS: 142

OPERATION 90 PLATFORM D-ROOF INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

- 90-1 Verify both sides, (North / South) of the platforms directly above are fully retracted and access is allowed to begin this inspection.

Qw:  N: 

DEC 8 02

- 90-2 Perform inspection of SRB external surfaces visible from platform D-Roof. Verify absence of visible damage, loose items, tape, and magnetic station markers.

LH SRB
Qw:  N: 

DEC 8 02

RH SRB
Qw:  N: 

DEC 8 02

90-1

SPC
246

DEC 8 02

NOTE

Joint interface bondline discontinuities between K5NA and adjoining material due to shrinkage during cure cycle are acceptable if the separation does not exceed more than half of the specified material thickness at that location.

90-3 **Verify no visible damage to TPS and topcoat on SRB System tunnel structures. Verify no visible peeling paint, cracking, evidence of contamination, debonds or missing material.**

OMRSD B09TP0.010-1 *PLAT D-R USA
VM
098

LH SRB  
DEC 8 02 Qw: _____ N: _____

RH SRB  
DEC 8 12 Qw: _____ N: _____

90-4 **Verify SRB system tunnel vent holes (8) are clear of any obstructions or foreign material.**

OMRSD B08SB0.061-B-1 USA
VM
098

LH SRB  
DEC 8 02 Qw: _____ N: _____

RH SRB  
DEC 8 12 Qw: _____ N: _____

90-5 **Inspect and verify ET is free of obstructions or interface connections that would impair rollout or cause damage.**

DEC 8 02 Qw:  N: 

90-6 **Verify all Red streamers have been removed.**

DEC 8 02 Qv: 

90-7 **Inspect TPS areas on the ET for cracks, voids, and visible damage.**

OMRSD T09QAL.020-1 *PLAT D-R USA
VM
098

DEC 8 02 Qw:  N: 

SPC
246

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APPROVED

OMI S6016 J09
APPROVED

CREATED: 1/13

90-8 Take digital photos of all TPS areas (ET) inspected in the previous steps.

W/O No. 55482

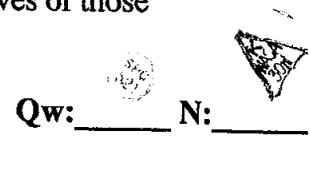
OMRS (general) T00GEN.070

DEC 8 02 Qw: 

90-9 Verify no visible damage to the tank structure.

DEC 8 02 Qw:  N: 

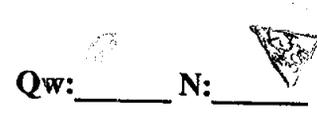
90-10 Inspect the LO2 Feedline, Feedline Bracket, GO2/GH2 Presslines and Ice Frost Ramps for visible damage and foreign objects debris as is accessible from the platforms. Use binoculars as required for those areas out of reach. Visual inspection of these components at adjacent platforms levels is applicable because it allows different angles/perspectives of those components.

DEC 8 02 Qw:  N: 

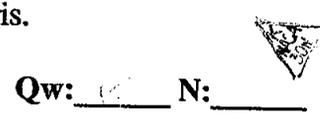
90-11 Inspect GH2 pressure line, LO2 feedline and GO2 pressure line are free of visible damage and loose hardware.

DEC 8 02 Qw:  N: 

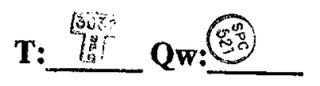
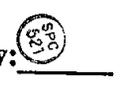
90-12 Inspect ET vent areas on the LH2 cable tray (sliding joints) and verify unobstructed.

DEC 8 02 Qw:  N: 

90-13 Perform platform D- Roof inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

DEC 8 02 Qw:  N: 

90-14 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

DEC 8 02 T:  Qw: 

NOTE

If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platforms have been retracted, no inspection is required.

- 90-15** Verify no visible damage to ET/SRB external TPS structure and components. **Perform** level inspection and verify all loose equipment is removed or secured and no debris is present.

Qw: ✓ N: ✓

Not Performed: 

- 90-16** When inspection of this area is complete, **install** tape along with an integrity placard sign across entrance openings.

T: ✓ Qw: ✓

Not Performed:  

*** End of Operation 90 ***

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

OPERATIONS 149

OPERATION 100 PLATFORM D-3 ROOF INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

- 100-1** Perform inspection of SRB external surfaces visible from platform D-3. Verify absence of visible damage, loose items, tape, and magnetic station markers.

LH SRB
Qw: _____ N: _____

RH SRB
Qw: _____ N: _____

DEC 3 2002

100-2 Verify no visible damage to TPS and topcoat on SRB System tunnel structures. Verify no visible peeling paint, cracking, evidence of contamination, debonds or missing material.

OMRSD B09TP0.010-1 *PLAT D-3R

USA
860
VIA
080

LH SRB

DEC 8 02 Qw: N:

RH SRB

DEC 8 02 Qw: N:

DEC 8 02

DEC 8 02

NOTE
This level has no access to the ET. Inspection of the ET's external surfaces are visible from platform D-3.

100-3 Inspect ET for obstructions or interface connections that would restrict move or cause damage.

DEC 8 02 Qw: N:

100-4 Verify all Red streamers have been removed.

DEC 8 02 Qv:

100-5 Inspect ET vent areas on the LH2 cable tray (sliding joints) and verify unobstructed.

DEC 8 02 Qw: N:

100-6 Inspect LH2 cable tray assembly for visible damage and loose hardware. Inspect areas under the cable tray for foreign material.

DEC 8 02 Qw: N:

07-25-2002
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OMI S6016 J09
APPROVED

SPENRS. 145

100-7 Inspect the LO2 Feedline, Feedline Bracket, GO2/GH2 Presslines and Ice Frost Ramps for visible damage and foreign objects debris as is accessible from the platforms. Use binoculars as required for those areas out of reach. Visual inspection of these components at adjacent platforms levels is applicable because it allows different angles/perspectives of those components.

DEC 12 12
Qw: _____ N: _____

100-8 Inspect TPS on ET for cracks, voids, and visible damage.

OMRSD T09QAL.020-1 *PLAT D-3R

860 WA 457
DEC 12 12
Qw: _____ N: _____

100-9 Take still videos of all TPS areas (ET) inspected in the previous steps.

OMRS (general) T00GEN.070

W/O No. 55488

100-10 Perform platform D-3 inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

DEC 12 12
Qw: _____ N: _____

100-11 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

3032
DEC 12 12
T: _____ Qw: _____

NOTE

If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platform has been retracted no inspection is required.

- 100-12** Verify no visible damage to ET/SRB external TPS structure and components. Perform level inspection and verify all loose equipment is removed or secured and no debris is present.

Qw: NIA N:

DEC 8 102

Not Performed: 

- 100-13** When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

T: NIA Qw:

DEC 8 102

Not Performed:  

*** End of Operation 100 ***

DEC 8 102



07-25-2002
APPROVED

OMI S6016 J09
APPROVED

SPRARS, 148

OPERATION 110 PLATFORM D-2 NORTH INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 1.0

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

- 110-1** **Perform** inspection of SRB external surfaces visible from platform D-2 north. **Verify** absence of visible damage, loose items, tape and magnetic station markers.

QW: _____ N: _____



DEC 8 02

110-2 Verify no visible damage to TPS and TPS topcoat on the following SRB structures. Verify no visible peeling paint, cracking or evidence of contamination, gouges, debonds and missing material.

1. Aft strut covers
2. SRB/ET attach ring, attach ring covers, and aft IEA covers
3. Aft attach struts
4. System tunnel

OMRSD B09TP0.010-1 *PLAT D-2N

860
WA
SN
DEC 8 02



Qw:  N: _____

110-3 Verify ETA ring covers are free of visible corrosion or damage.

OMRSD B08ST0.010-1 *PLAT D-2N

860
WA
SN
DEC 8 02



Qw:  N: _____

CAUTION

Use care when removing LH2 cable tray protective cover, FWD half and aft half. Do not rip, tear, crease or debond hydrogen fire detectors (butcher paper).

110-4 If not removed, **remove** protective covers on the following listed items:

- LH2 feedline, TL-0862-001
- LH2 recirculation line, TL-0666-001
- LH2 umbilical C/T fairing, TL-0860-001
- LH2 cable tray, TL-0861-001
- Vertical Strut -Y, TL-0864-001 (D-2 north)

T:  _____

Not Performed: NA

07-25-2002
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OMI S6016 J09
APPROVED

SPCARS, 147

110-5 Inspect LH2 butcher paper and verify it is free of debonds or tears.

Qw:  N: 

110-6 Visually inspect cable tray drain holes on the ET vertical strut (-Y) to SRB and verify clear of debris and obstructions.

OMRSD T09QAL.090-C-1

Qw:  N: 

110-7 Inspect Upper, Lower and Diagonal strut covers drain holes and verify they are free of obstructions.

OMRSD B08SB0.061-D-1 *PLAT D-2N
OMRSD B08SB0.061-E-1 *PLAT D-2N
OMRSD B08SB0.061-F-1 *PLAT D-2N

Qw:  N: 

110-8 Inspect ET for obstructions or interface connections that would restrict move or cause damage.

Qw:  N: 

110-9 Verify all red streamers have been removed.

Qv: 

110-10 Inspect areas with TPS for cracks, voids and visible damage.

Qw:  N: 

110-11 Inspect the tank structure for visible damage.

Qw:  N: 

110-12 Inspect the following listed items, as a minimum, and adjacent areas for foreign objects and debris. This inspection shall include the top, bottom and sides plus areas that have cavities to verify that there is no FOD contained within these items/areas. **Binoculars** will be used for areas that are not accessible due to existing platform design. Should any FOD be found, **process** per SPI QA-001.

- Thrust Strut
- Vertical Strut
- Cross Beam (-Y Half)
- LH2 Elect. Cable Tray
- LH2 Umbilical fairing
- LH2 feedline/Bracket
- LH2 17" Disconnect
- GH2 Pressline
- ET/SRB Pal Ramp
- Aft Fairing/Upper Strut
- LH2 Recirculation Line

DEC 8 02 Qw:  N: 

110-13 Inspect the LH2 cable tray assembly for loose hardware and visible damage.

DEC 8 Qw:  N: 

110-14 Inspect the GH2 pressure line, LH2 feedline, LH2 recirculation line for loose hardware and visible damage.

Qw:  N: 



07-25-2002
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OMI S6016 J09
APPROVED

SPERS, 148

110-15 Inspect TPS areas on the following listed items for cracks, voids, and visible damage:

- LH2 C/T covers (STA 2058)
- LH2 Feedline
- LH2 Recirculating line
- C/T covers ET/SRB
- C/T covers crossbeam/umbilical
- ET/SRB pal ramp (-Y)
- Aft crossbeam
- Aft ET/SRB fairing (-Y)
- LH2 barrel
- GH2 pressline fairing

OMRSD T09QAL.020-1 *PLAT D-2N

860
WA
VSN



DEC 8 02

Qw:  N: _____

110-16 Take digital photos of all TPS areas (ET) inspected in the previous steps.

W/O No. 55488

OMRS (general) T00GEN.070

Qw:  N: _____

DEC 8 02

110-17 Inspect the lowest drain hole for the LH2 feedline bellows and verify it is clear of obstructions or debris.

OMRSD T09QAL.060-1

860
WA
VSN



Qw:  N: _____

DEC 8 02

SPC
322

DEC 8 02

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

110-18 Inspect LH2 cable tray drain hole at LH2 cable tray support, located at STA XT-2013, and verify it is free of debris and obstructions.

OMRSD T09QAL.090-B-1

860
VVA
USA

DEC 8 02

Qw: N:

110-19 Verify LH2 feedline burst disc cover is removed and burst disc diaphragm has no visual evidence of puncture or rupture.

OMRSD T41QAL.010

860
VVA
USA

DEC 8 02

Qw: N:

110-20 Verify LH2 Recirculation line burst disc cover is removed and burst disc diaphragms (2) have no visual evidence of puncture or rupture.

OMRSD T41QAL.020

860
VVA
USA

DEC 8 02

Qw: N:

110-21 Verify Vent area on LH2 cable tray (sliding joints) are free of debris and obstructions.

Qw: N:

110-22 Inspect and verify:

1. All electrical interface connections to ET are disconnected .
2. Aft ET/ORB umbilical area is free of visible damage.

Qw: N:

110-23 Visually inspect drain hole in ET/ORB umbilical cable tray and verify free of debris and blockage.

OMRSD T09QAL.080-A-1

860
VVA
USA

DEC 8 02

Qw: N:

SPP
246

110-24 Inspect and verify:

1. Lower ET/SRB attach points are free of visible damage.
2. Inspect ET/SRB cable tray areas are free of visible damage. (D-2 north)

REC # 02 Qw:  N: 

110-25 Perform platform D-2 north inspection.

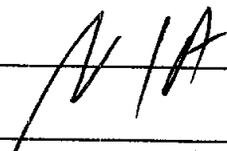
Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

REC # 02 Qw:  N: 

110-26 When the inspection of the ET LH2 recirculation line and LO2 umbilical cable tray is complete, install TSA-498 soft protective covers onto Recirculation line and LO2 cable tray. Secure covers with supplied hook and loop straps. Update the TIR log and record number below.

Recirc. line TIR no.

LO2 C/T TIR no.

*NOT Required
Tape work by
another WAD
RB-2*

110-27 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

REC # 02 T:  Qw: 

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

NOTE

If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platform has been retracted no inspection is required.

- 110-28** Verify no visible damage to ET/SRB external TPS structure and components. Perform level inspection and verify all loose equipment is removed or secured and no debris is present.

Qw: N: *N/A*

DEC 8 02 Not Performed: 

- 110-29** When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

T: Qw: *N/A*

DEC 8 02 Not Performed: 

*** End of Operation 110 ***

DEC 8 02



07-25-2002
APPROVED

OMI S6016 J09
APPROVED

OPERARS: 150

OPERATION 120 PLATFORM D-2 SOUTH INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 1.0

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

- 120-1** Perform inspection of SRB external surfaces visible from platform D-2 south. Verify absence of visible damage, loose items, tape and magnetic station markers.

DEC 8 02

Qw:  N: 

120-2 Verify no visible damage to TPS and TPS topcoat on following SRB structures.
Verify no visible peeling paint, cracking, evidence of contamination, gouges, debonds or missing material.

- Aft strut covers
- SRB/ET attach ring, attach ring covers, and aft IEA covers
- Aft attach struts
- System tunnel areas

OMRSD B09TP0.010-1 *PLAT D-2S

860
WA
YSN

DEC 8 02

Qw: _____ N: _____



120-3 Verify ETA ring covers are free of visible corrosion or damage.

OMRSD B08ST0.010-1 *PLAT D-2S

860
WA
YSN

DEC 8 02

Qw: _____ N: _____



120-4

IF Protective covers are not already removed,

Verification

THEN remove protective covers from the following items:

- LO2 feedline elbow, TL-0865-001
- LO2 umbilical C/T fairing, TL-0857-001
- LO2 cable tray, TL-0855-001
- Vertical strut +Y, TL 0563-001

ELSE Proceed to next step.

T: _____

DEC 8 02



DEC 8 02

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

SPARS, 151

120-5 Visually inspect ET cable tray drain holes, helium inject box drain holes and verify free of debris and obstructions in following areas:

1. RH vertical strut to SRB cable tray
2. RH vertical strut cable tray
3. Aft end of Helium Inject Box

OMRSD T09QAL.090-D-1
OMRSD T09QAL.090-E-1
OMRSD T09QAL.090-F-1

860
WVA
US

DEC 8 02

Qw:  N: 

120-6 Inspect strut cover drain holes and verify free of debris and obstructions.

OMRSD B08SB0.061-D-1 *PLAT D-2S
OMRSD B08SB0.061-E-1 *PLAT D-2S
OMRSD B08SB0.061-F-1 *PLAT D-2S

860
WVA
US

DEC 8 02

Qw:  N: 

DEC 8 02

860
WVA
US

120-7 Inspect ET for obstructions or interface connections that could restrict move or cause damage.

DEC 8 02

Qw:  N: 

120-8 Verify all red streamers have been removed.

DEC 8 02

Qv: 

120-9 Inspect ET TPS areas for cracks, voids and visible damage.

Qw:  N: 

120-10 Inspect the tank structure for visible damage.

Qw:  N: 

120-11 Inspect the following listed items, as a minimum, and adjacent areas for foreign objects and debris. This inspection shall include the top, bottom and sides plus areas that have cavities to verify that there is no FOD contained within these items/areas. **Binoculars** will be used for areas that are not accessible due to existing platform design. Should any FOD be found, **process** per SPI QA-001.

- Thrust Strut
- Vertical Strut
- Cross Beam (+Y Half)
- LO2 Elect. Cable Tray
- LO2 Umbilical fairing
- LO2 feedline/Bracket
- LO2 17" Disconnect
- GO2 Pressline/GH2 Pressline
- ET/SRB Pal Ramp
- Aft Fairing/Upper Strut
- Diagonal Cross Strut

Qw:  N: 

DEC 8 02

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

SPEAR, 152

120-12 Verify LH2 cable tray assembly is free of loose hardware and visible damage.

DEC 8 07
Qw: N:

120-13 Verify LO2 feedline and GO2 pressure line for loose hardware and visible damage.

DEC 8 07
Qw: N:

120-14 Inspect TPS areas on following listed items for cracks, voids, and visible damage:

- LO2 feedline elbow (STA 2034)
- Cable tray covers - ET/SRB
- Cable tray covers cross beam/umbilical
- ET/SRB pal ramps (+Y)
- Aft cross beam
- Aft ET fairing (+Y)

OMRSD T09QAL.020-1 *PLAT D-2SK

DEC 8 07
Qw: N:

120-15 Take digital photos of all TPS areas (ET) inspected in the previous steps.

W/O No. 55488

OMRS (general) T00GEN.070

Qw:

120-16 Inspect and verify:

1. All electrical interface connections to ET are disconnected.
2. Aft ET/ORB umbilical areas are free of visible damage and loose hardware.

DEC 8 02

Qw:  N: 

120-17 Visually inspect the drain hole in ET/ORB umbilical cable tray and verify free of debris and blockage.

OMRSD T09QAL.080-B-1

USA
VM
098

DEC 8 02

Qw:  N: 

120-18 Inspect and verify:

1. The lower ET/SRB attach points are free of damage.
2. The ET/SRB cable tray areas are free of damage and loose hardware.

DEC 8 02

Qw:  N: 

120-19 Perform platform D-2 south inspection. Verify all loose equipment located within three feet of flight hardware is secured with rope or removed. Inspect the platform levels for visible foreign objects and debris.

DEC 8 02

Qw:  N: 

120-20 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

DEC 8 02

T:  Qw: 

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

SPARS - 153

NOTE

If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platforms have been retracted, no inspection is required.

120-21 Verify no visible damage to ET/SRB external TPS structure and components. Perform level inspection and verify all loose equipment is removed or secured and no debris is present.

① E K L O R
DEC 8 1982

Qw: N N: 1/A

Not Performed: ②

120-22 When inspection of this area is complete, install tape along with an integrity placard sign across entrance openings.

T: N/A Qw: _____

Not Performed: ③

*** End of Operation 120 ***

DEC 8 1982
SPR 246

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

SPARS, 154

OPERATION 130 PLATFORM D-MAIN INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 1.0

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to visually inspect areas that are not accessible by existing platform design.

NOTE

The elastic cord that is installed thru 270 degree stiffener ring drain holes will be removed from Zero Level. Drain holes at this location (one per stiffener ring) will be verified clear of obstructions as cord is removed.

- 130-1** Visually verify stiffener ring drain holes, except those at 270 degree location, eight per stiffener ring are clear of obvious obstructions and debris (as access permits).

LH SRB

Qw:  N: 

RH SRB

Qw:  N: 

DEC 8 02

 DEC 8 02

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

130-2 Verify no visible damage to TPS and topcoat on SRB system tunnel covers.
Verify no visible peeling paint, cracking, evidence of contamination, gouges,
debonds or missing material.

OMRSD B09TP0.010-1 *PLAT D-M

USA
VM
098

DEC 8 02

LH SRB

Qw: _____ N: _____



RH SRB

Qw: _____ N: _____



130-3 Perform inspection of SRB external surfaces visible from platform D-main.
verify absence of visible damage, loose items, tape and magnetic station
markers.

LH SRB

Qw: _____ N: _____



RH SRB

Qw: _____ N: _____



130-4 Perform platform D-main inspection.

Verify all loose equipment located within three feet of flight hardware is
secured with rope or removed.

Inspect the platform levels for visible foreign objects and debris.

Qw: _____ N: _____



DEC 8 02

SPC
246
DEC 8 2002

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

SPARS - 155

- 130-5 When inspection of this area is complete, **install** tape along with an integrity placard sign across entrance openings.

DEC 8 02 T: _____ Qw: _____

NOTE

If next operation in this OMI (platform directly below) has been previously inspected, perform next two steps to insure integrity of the level. If platform has been retracted no inspection is required.

- 130-6 **Verify** no visible damage to ET/SRB external TPS structure and components. **Perform** level inspection and **verify** all loose equipment is removed or secured and no debris is present.

Not Performed: _____
Qw: / N: NA

- 130-7 When inspection of this area is complete, **install** tape along with an integrity placard sign across entrance openings.

Not Performed: _____
T: NA Qw: NA

① Error
DEC 8 02

DEC 8 02
SPC 246

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

130-8 Notify ET / SRB OPS Management that the inspection of the levels in this operation are complete and the platforms can be retracted.

T: 30321 Qw: 30321
7 8 6 J

DEC 8 02

*** End of Operation 130 ***

SPC
246

DEC 8 02

07-25-2002
APPROVED

OMI S6016 J09
APPROVED

SPENCER, L.S.

OPERATION 140 MLP ZERO LEVEL INSPECTION

Shop: QC
Cntrl Rm Console: NONE
OPR: ETM
Zone: NA
Hazard (Y/N): Y
Duration (Hrs): 1.0

NOTE

Operations involving CRIT 1, 1R and/or 1S items are contained in the following operation steps.

As this area is inspected and found acceptable, an integrity placard and tape will be installed to insure integrity of this inspection. Areas up high on ET and not easy to see will be inspected the best was possible from the floor. Binoculars must be used to inspect areas that are not accessible by existing platform design.

140-1 Verify both sides, (North / South) of the platforms directly above are fully retracted and access is allowed to begin this inspection.

DEC 8 02
Qw: N:

140-2 Perform inspection of SRB external surfaces visible from MLP Zero level. Verify absence of visual damage, loose items, tape and magnetic station markers.

DEC 8 02
LH SRB
Qw: N:

DEC 8 02
RH SRB
Qw: N:

140-3 Verify no visible damage to TPS and topcoat on following SRB structures.
Verify no visible peeling paint, cracking, evidence of contamination, gouges, debonds or missing material.

1. Aft BSM nozzle and nozzle heat seal
2. Aft BSM fairing and motor support
3. Aft BSM case
4. Aft skirt, aft ring (where no insta-foam is installed)
5. External actuator support structures (below the phenolic kick ring and on left and right side of feed through (rooster tail)
6. Aft skirt kick ring
7. System tunnel cover area

OMRSD B09TP0.010-1 *MLP 0 LVL

US
M
880

LH SRB Qw: N:

RH SRB Qw: N:

DEC 8 '02

DEC 8 '02

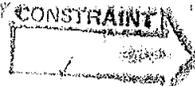


140-4 Verify the rooster tail cover drain holes (LH/RH sides) are clear of debris and obstructions.

*Q Note
129
098
is constant
in cars No records
of constant bias
posted in my Record*

OMRSD B08SB0.070-A

USA
VM
098



①

DEC 8 02

LH SRB



Qw: _____ N: _____

DEC 8 02

RH SRB



Qw: _____ N: _____

DEC 8 02

140-5 Verify SRB engine service platforms, A77-0029 has been cleaned of all loose materials and debris. (Cork, K5NA pieces, rags, ty wraps, paper, etc.).

LH SRB



Qw: _____ N: _____

DEC 8 02

RH SRB



Qw: _____ N: _____

DEC 8 02

WARNING			
Entry into a confined space may result in a possible lack of oxygen. Entry prior to ventilation may result in personnel injury ranging from dizziness and lightheadedness to unconsciousness, suffocation and death. Toxic vapor levels shall be monitored and an adequate oxygen level maintained.			
			WCS001.a 03-19-01

140-6 Safety Ops, install an O2 meter into each of the LH/RH Aft Skirts interiors, if not already installed.

LH SRB

S: _____

12-6-02

Not Performed: N/A

RH SRB

S: _____

12-6-02

Not Performed: N/A



DEC 8 02

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140-7 Safety Ops, **perform** toxic vapor and O2 checks and **verify** levels are acceptable. **Record** results below and give safety concurrence to enter into the aft skirts.

O2 21.0% pct 19.5 to 22.0

N2H4 0.0 ppm less than or equal to 0.01

DEC 8 02 LH SRB SAFETY
S: 10

RH SRB SAFETY
S: 10

DEC 8 02

140-8 **Purge** the LH/RH Aft Skirts with air for 15 minutes prior to entry and ventilate continuously.

DEC 8 02 LH SRB T: 3032
7:1

DEC 8 02 RH SRB T: 3032
7:1

140-9 **Verify** all loose hardware and tools have **been removed** from the SRB Aft Skirt interiors or firmly secured to structure for move.

DEC 8 02 LH SRB Qw: 119 N: MACA 30H

RH SRB Qw: 119 N: MACA 30H

DEC 8 02

140-10 **Verify** all disconnected flex hoses and electrical cables in the SRB Aft Skirts are properly protected on the disconnected end and secured to structure.

DEC 8 02 LH SRB Qw: 119 N: MACA 30H

RH SRB Qw: 119 N: MACA 30H

DEC 8 02

SPC
246

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140-11 Verify no visible leakage from fluid systems inside the Aft Skirts.

LH SRB Qw: _____ N:
DEC 0 02

RH SRB Qw: _____ N:
DEC 0 02

140-12 Safety Ops remove the O2 meters from the LH/RH Aft Skirt interiors

LH SRB S:
DEC 0 02

RH SRB S:
DEC 0 02

140-13 Verify all portable work lights have been removed from the SRB Aft Skirt interiors.

LH SRB Qw: _____
DEC 0 02

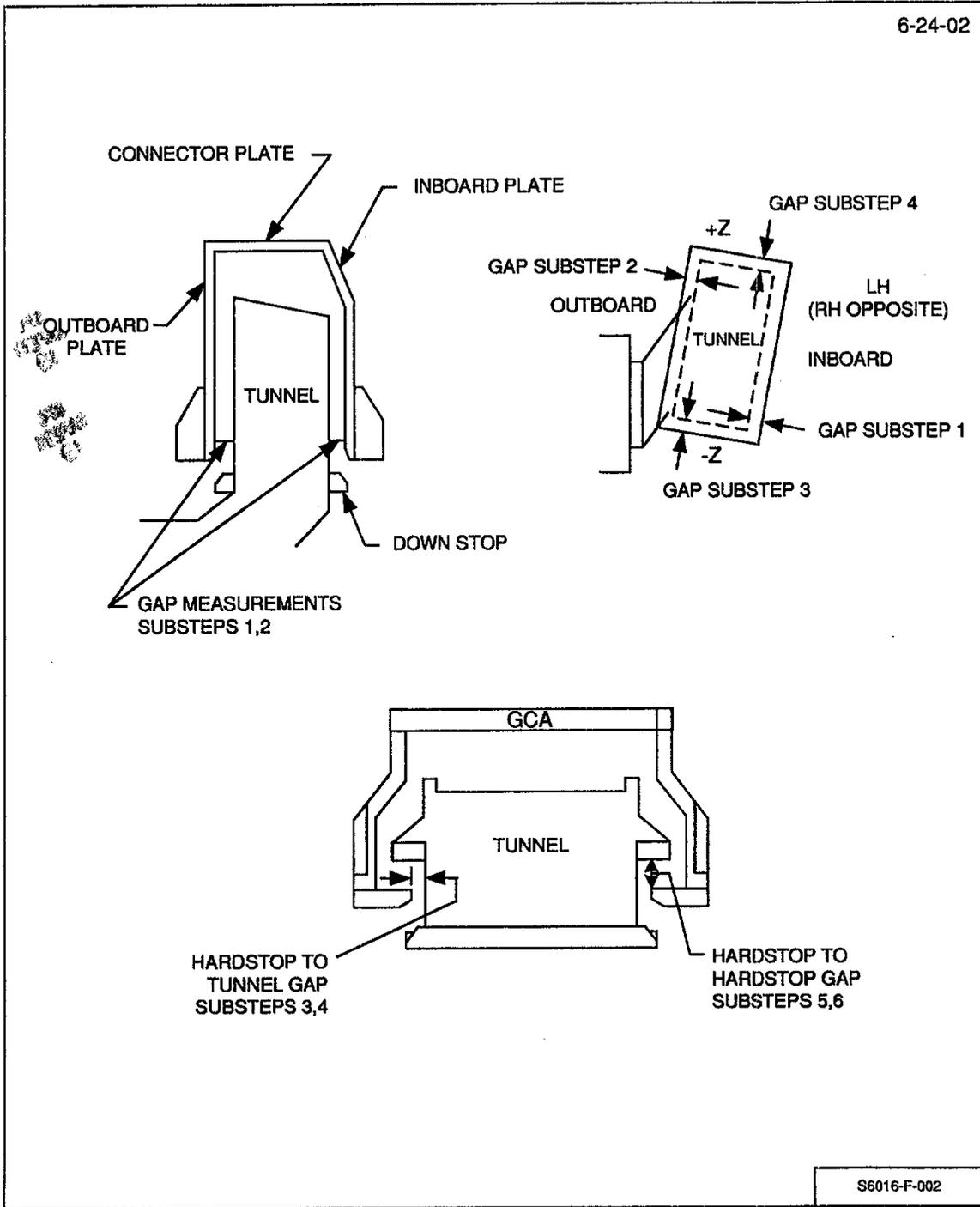
RH SRB Qw: _____
DEC 0 02

140-14 Verify SRB joint heater ground carrier assembly torque restraint brackets and mating tool are not installed on the SRB T-O umbilical location.

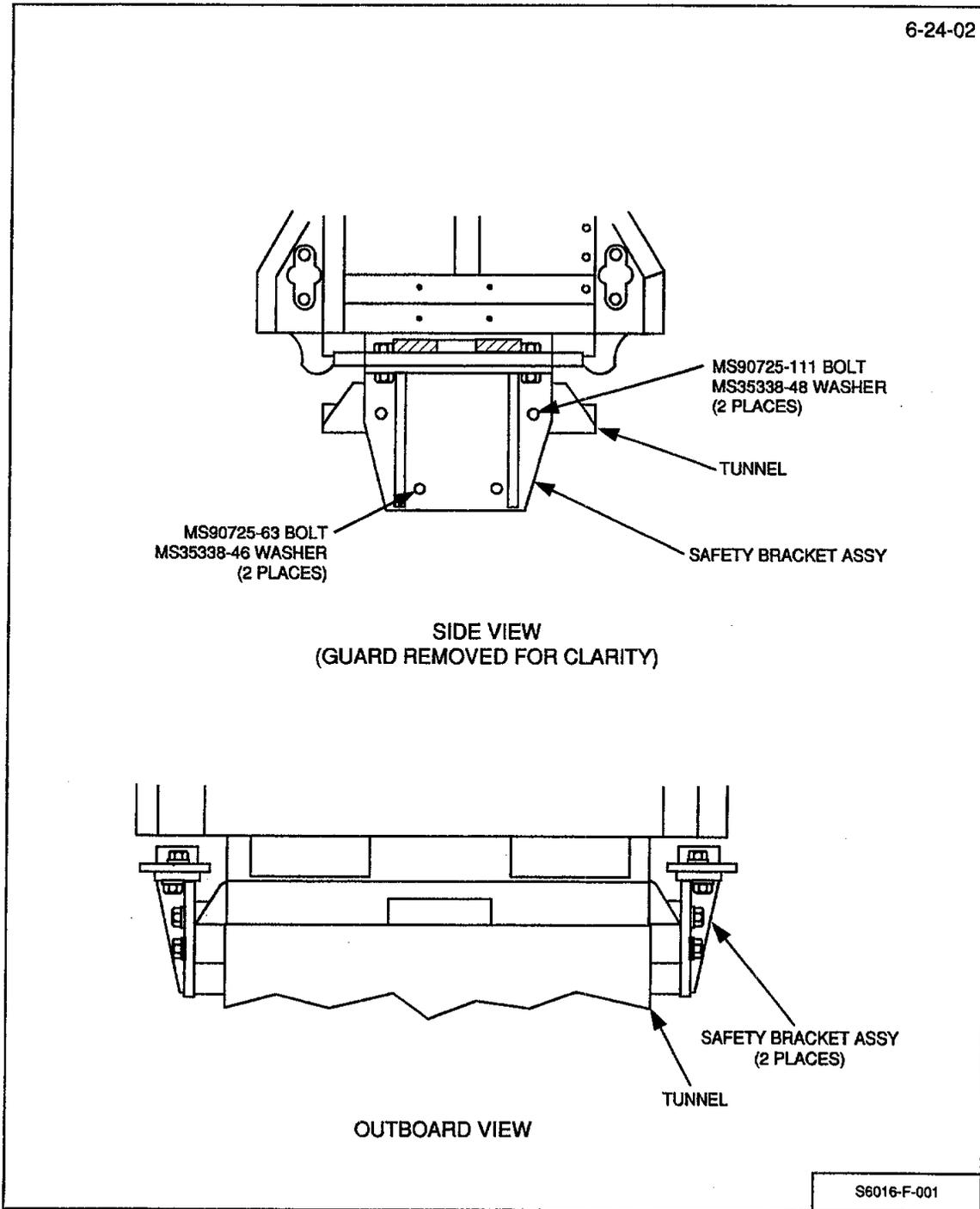
LH SRB Qw: _____ N:
DEC 0 02

RH SRB Qw: _____ N:
DEC 0 02

DEC 0 02



**Figure 140-1: Ground Carrier to Tunnel Clearances
(For Reference Only)**



**Figure 140-2: Isolator/Safety Bracket
(For Reference Only)**

CAUTION

The GCA is secured to the AFT Skirt by four frangible bolts. Impact to the GCA could cause the unit to drop resulting in damage to hardware.

NOTE

In the following step, sub-steps may be worked out of sequence.

140-15 **Verify following Ground Carrier assembly to tunnel clearances. Reference Figure 140-1.**

- 1. Inboard plate to tunnel is greater than 0.53 inch. Measure at both +Z and -Z ends.**
- 2. Outboard plate to tunnel is greater than 0.48 inch. Measure at both +Z and -Z ends.**
- 3. -Z end hardstop to tunnel is greater than 0.62 inch. Measure at both Inboard and Outboard locations.**
- 4. +Z end hardstop to tunnel is greater than 0.44 inch. Measure at both Inboard and Outboard locations.**
- 5. GCA hardstop to tunnel hardstop (-Z side) is greater than 0.75 inch and less than 1.98 inch. Measure at both Inboard and Outboard locations.**
- 6. GCA hardstop to tunnel hardstop (+Z side) is greater than 0.75 inch and less than 1.98 inch. Measure at both Inboard and Outboard locations.**
- 7. Top of isolator of safety bracket (+Z end) to bottom of GCA is greater than 0.18 inch. Measure at both Inboard and Outboard locations. Reference Figure 140-2.**
- 8. Top of isolator of safety bracket (-Z end) to bottom of GCA is greater than 0.18 inch. Measure at both Inboard and Outboard locations. Reference Figure 140-2.**

Tool ID No. QAU 1-007

246
246

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SPEARS: 316

OMRSD G22FCMM00.016
OMRSD G22FCMM00.020 *PART 2

USA
VM
098

LH
T: 3032 Qw:

DEC 8 02

RH
T: 3032 Qw:

DEC 8 02

NOTE
If A77-0893 HDP platform(s) are not being used, do not perform next step.

140-16 Verify A77-0893 HDP platform(s) are installed on the haunches and secured in place.

LH SRB

DEC 8 02

Qw: N:

Not Performed:

RH SRB

DEC 8 02

Qw: N:

Not Performed:

DEC 8 02

DEC 8 02

07-25-2002
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140-17 Verify access platform(s) for the A77-0879 hydraulic/pneumatic panels are installed and secured.

LH SRB
DEC 6 02
SPC 611
Qw: _____ N: _____

RH SRB
DEC 6 02
SPC 611
Qw: _____ N: _____

140-18 Verify all hold down post doors (8) are closed and attach bolts installed hand tight in each door.

LH SRB
DEC 6 02
SPC 611
Qw: _____ N: _____

RH SRB
DEC 6 02
SPC 611
Qw: _____ N: _____

SPC
246

DEC 6 02

140-19 Verify sacrificial anode diver's grounding lugs are free of foam splatter and debris . (one each located on aft skirts at hold down posts no. 2 and 8 areas).

LH SRB Qw: _____ N:

UEC 8 02

RH SRB Qw: _____ N:

UEC 8 02

NOTE

Use care in removing the elastic cord from the stiffener ring holes as to cause no damage to the protective foam.

140-20 Remove the elastic cord from forward, center, and aft stiffener ring drain holes at 270 degree location. Verify holes are clear of obvious obstructions. Route cord back to RPSF area.

LH SRB T: Qw: N:

UEC 8 02

RH SRB T: Qw: N:

UEC 8 02

140-21 Perform a walk down of MLP Zero-level. Verify all loose SRB related equipment is removed or secured. Place chains across all haunch access ladders at the SRB AFT skirts.

Qw: _____ N:

UEC 8 02

140-22 From the Zero level of the MLP, take digital photos of all TPS areas and the Manhole Covers on the Aft Dome section of the LH2 Tank on the ET. Include photos of the TPS areas on the side as well as the bottom sections of the Tank.

W/O No. 55489

OMRS (general) T00GEN.070

Qw: _____

UEC 8 02

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140-23 When inspection of this area is complete, **install** tape along with an integrity placard sign across entrance openings at the LH/RH AFT skirts.

DEC 6 02 T: 3032 QW: SPC 811

*** End of Operation 140 ***

DEC 6 02



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SPRARS, 318

OPERATION 150 PLATFORM / FLIGHT HARDWARE VISUAL WALKDOWN INSPECTION

Shop: QUAL
Cntrl Rm Console: NA
OPR: ETM
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 2.0

NOTE

The following operation will perform a visual inspection of all retracted platforms and accessible flight hardware that can be seen from the various levels using binoculars. This inspection will begin at Level C-2 North side and continue down to the MLP. The South side Platforms / areas will then be performed. This inspection will look for any visible damage and Foreign Objects Debris that may be present after all platforms have been retracted. Should any damage or FOD be found, process per SPI QA-001 and notify the responsible System Engineer as soon as possible.

150-1 **Obtain** Pad Leader (room 2B12) for concurrence that the retracted platforms can be accessed for the purpose of performing a visual inspection prior to rollout.

Qw: 

016 0 0



027 4 02

150-2 Using binoculars, at the locations listed below, perform an inspection of flight items such as the ET, SRBs and Orbiter for any visual damage and FOD. **Look** at vehicle attach points (as access permits) for any damage or FOD that may be present. On the platform Levels, **look** for FOD and any item that could restrict movement and cause damage when the move from the VAB begins.

Level Location	North Side	South Side
Platform C-2	QW 	QW  DEC 6 02
Platform C-Main	QW 	QW 
Platform E-Roof	QW 	QW 
Platform E-Main	QW 	QW 
Platform B-Roof	QW 	QW 
Platform B-2	QW 	QW 
Platform B-Main	QW 	QW 
Platform D-Roof	QW 	QW 
Platform D-3	QW 	QW 
Platform D-2	QW 	QW 
Platform D-Main	QW 	QW 
MLP Zero Level	QW  DEC 6 02	QW  DEC 6 02

150-3 Inform Pad Leader, (room 2B12) that this inspection is complete and if there are any discrepancies that could affect rollout.

QW: 

DEC 6 02

*** End of Operation 150 ***

DEC 9 02



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SPARS, 319

**Emergency Instruction
E1: EMERGENCY INSTRUCTIONS**

E1-1 No Critical Safing is required for this OMI.

***** End of Emergency Instruction *****

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*****
*          PROGRAM PRA120 SELECTION CRITERIA          *
*-----*
*          RPT TYPE: IPR                               *
*          PR GROUP:                                   *
*          WORK AREA CD:                               *
*          PR ELEM CD:                                 *
*          STS NO:                                     *
*          Starting RPT DT: 12/09/01                   *
*          Ending RPT DT: 12/09/02                     *
*          LRU or Non-LRU: B                           *
*          PRACA EFF CD:                               *
*          EICN: S6016                                 *
*          RPT STATUS: OP                              *
*-----*
*          Sorted by DETECTED DURING, PR ELEM CD, and EICN *
*****

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* NO DATA FOUND ON THE DATABASE FOR THE SELECTED PARAMETERS *

* END OF REPORT *





United Space Alliance

Pen and Ink Change Record

SEARCH

REVISION	S6016 Jp9	EFFECTIVITY	ET-93 / STS-107
Tracking Number	Page 40-8	Seq/Op - Step	40-7
			Eng Approval 08 12-6-02

STEP AFTER 40-9 IS "40-7" AND SHOULD BE "40-10".

Tracking Number	Page 40-9	Seq/Op - Step	40-8 THEN 40-12	Eng Approval 08 12-6-02
CHANGE TYPOS AS FOLLOWS:				
	IS: "40-8"	S/B: "40-11"		
	IS: "40-9"	S/B: "40-12"		
	IS: "40-10"	S/B: "40-13"		
	IS: "40-11"	S/B: "40-14"		
	IS: "40-12"	S/B: "40-15"		

Tracking Number	Page 40-10	Seq/Op - Step	40-13 AND 40-14	Eng Approval 08 12-6-02
CHANGE TYPOS AS FOLLOWS:				
	IS: "40-13"	S/B: "40-16"		
	IS: "40-14"	S/B: "40-17"		

Tracking Number	Page	Seq/Op - Step	Eng Approval
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Tracking Number	Page	Seq/Op - Step	Eng Approval
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