



# HESSI SPACECRAFT PRE-VIBRATION CLOSEOUT

HSI\_MIT\_030C

2000-NOV-15

DAVE CURTIS

As Run on: \_\_\_\_\_ (Date/Time)

By \_\_\_\_\_ (Test Conductor)

**DOCUMENT REVISION RECORD**

Rev.	Date	Description of Change
A	2000-3-19	Original draft
B	2000-11-9	Update for new spacecraft configuration (remove vac valve GSE & constrain unmated actuator plugs, etc.); remove FSS stim. & antenna hats, add solar array safety tie-downs; leave FSS dust cover on; remove tooling balls; install pump port cap.
C	2000-11-15	Add QA signoff

Project Manager: \_\_\_\_\_  
 Peter Harvey Date

System Engineer: \_\_\_\_\_  
 David Curtis Date

QA: \_\_\_\_\_  
 Ron Jackson Date

**1. INTRODUCTION**

**1.1 Purpose**

This document describes the physical configuration of the spacecraft for vibration tests. The spacecraft is to be mated to the vibration plate via the red ring as called out in the vibration test plan (HSI\_MIT\_020). The spacecraft is to be nominally in flight configuration with solar arrays installed.

**2. ITEMS TO REMOVE**

- 1. SAS Covers (3x) Verify\_\_\_\_\_
- 2. RAS Cover Verify\_\_\_\_\_
- 3. PMT Cover Verify\_\_\_\_\_
- 4. Flight Enable Plug (FEP) Verify\_\_\_\_\_
- 5. Battery Relay Box Verify\_\_\_\_\_
- 6. Battery Cell Monitor Box Verify\_\_\_\_\_
- 7. Spectrometer Vacuum Pump Verify\_\_\_\_\_
- 8. Spectrometer pump
- 9. Lifting Fixture Verify\_\_\_\_\_
- 10. TMS Shorting Plug Verify\_\_\_\_\_
- 11. TMS alignment laser in front of Imager Verify\_\_\_\_\_
- 12. CSS Dust Covers (8x) Verify\_\_\_\_\_
- 13. Vacuum Valve GSE Verify\_\_\_\_\_
- 14. Actuator Enable plug (disconnect) Verify\_\_\_\_\_
- 15. RF Antenna hats (4x) Verify\_\_\_\_\_
- 16. FSS Stimulus Verify\_\_\_\_\_
- 17. Imager grid tray tooling balls (18) Verify\_\_\_\_\_
- 18. RAS tooling balls (4) Verify\_\_\_\_\_
- 19. Reference tooling ball at center ring Verify\_\_\_\_\_
- 20. Solar Array First Motion Fixture (leave the tabs on the solar arrays) Verify\_\_\_\_\_

**QA Verify:**

**3. ITEMS TO INSTALL**

- 1. Umbilical to GSE Verify\_\_\_\_\_
- 2. Test Access Connector (TAC) to GSE (for telemetry) Verify\_\_\_\_\_

- 3. Battery Flight Plug (BFP); as called out in HSI\_MIT\_033      Verify\_\_\_\_\_
- 4. Nominal Balance Mass      Verify\_\_\_\_\_
- 5. Spectrometer LN2 cooling fill tube support      Verify\_\_\_\_\_
- 6. Spectrometer pump port cap      Verify\_\_\_\_\_
- 7. Loose restraints on the solar arrays to capture them in the event that the  
frangibolts fail      Verify\_\_\_\_\_
- 8. FSS dust cover (red plastic)      Verify\_\_\_\_\_
- 9. RAS dust cover (bag)      Verify\_\_\_\_\_
- 10. Upper grid tray dust cover (bagging) if it is not closed out by thermal blankets  
Verify\_\_\_\_\_

<b>QA Verify:</b>
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**4. OTHER CLOSEOUTS**

- 1. Cage Spectrometer Attenuator Actuators      Verify\_\_\_\_\_
- 2. Close RAS aperture shutter      Verify\_\_\_\_\_
- 3. Tape down loose hardware on lifting fixture guides      Verify\_\_\_\_\_
- 4. Tape down unmated connectors: vacuum valve & actuator ebl.      Verify\_\_\_\_\_
- 5. Inspect blankets and harasses near solar array to ensure clearance  
Verify\_\_\_\_\_

<b>QA Verify:</b>
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