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**PFR- 126 Title: Magnetometer Mount Flatness**

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|-----------------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <b>Assembly :</b> Probe Structure | <b>SubAssembly :</b> Mag               |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |  |
| <b>Component :</b> Top Deck Mount | <b>Units Affected:</b>                 |                          |                          |                          |                          |                          | <b>Units fixed:</b>      |                          |                          |                          |                          |  |
| <b>Originator:</b> Paul Turin     | <input type="checkbox"/>               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |
| <b>Organization:</b> SSL          | <b>Date:</b> 12/20/05                  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |  |
| <b>Phone:</b> 510-642-5289        | <b>Email :</b> pturin@ssl.berkeley.edu |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |  |

**Failure Occurred During (Check one ✓)**

☐ Functional test   ☐ Qualification test   ☒ S/C Integration   ☐ Launch operations   ☐ Other (Flight Assy)

**Environment when failure occurred:**

☐ Ambient                      ☐ Vibration                      ☐ Shock                      ☐ Acoustic  
☐ Thermal                      ☐ Vacuum                      ☐ Thermal-Vacuum                      ☐ EMI/EMC

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| <b>Problem Description</b> |
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In preparation for mounting the mag booms the mounting inserts were checked for flatness (coplanarity and tilt). It was determined that the three inserts do not meet the Mag Boom ICD requirement of 0.005" – inserts varied as much as 0.026".

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| <b>Analyses Performed to Determine Cause</b> |
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Discussion with the spacecraft vendor revealed that the ICD requirement was missed and not accounted for in the deck buildup.

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| <b>Corrective Action/ Resolution</b> |
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It has been determined that for the first probe (probe 2) the addition of shims was adequate to get the booms correctly aligned. It is expected that this will also work for the subsequent probes, but this remains to be seen. I have requested that Swales prove inspection reports for the inserts on the remaining decks to see if any are drastically off.

Acceptance:

MAM: Ron Jackson \_\_\_\_\_; MSE: Ellen Taylor \_\_\_\_\_

PM: Peter Harvey \_\_\_\_\_; Cognizant Engineer \_\_\_\_\_

Date of Closure \_\_\_\_\_