STEREO IMPACT Boom Spacecraft Deployment Checklist
Document # IMP-628-DOC
Revision: B nr

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HAZARDOUS

1. Purpose of Deployment: Spacecraft End-to-end Test, Self-shock Instrument Survival, Magnetometer Alignment, Deployment Statistics, Stiffness Measurement, Timed Deployment

2. ☐ Verify correct equipment is available to obtain the above data.

3. ☐ Verify the IMPACT Boom deployment GSE is erected properly (see IMP-638) and functioning.
   a. Counterweight rolling friction: _____ grams.

4. ☐ Verify Counterweight is appropriate for the test – Balanced mass: ~7445 grams.

5. ☐ Verify the IMPACT Boom is mounted to the Spacecraft and the Spacecraft is in the correct orientation for offloaded deployment.

6. ☐ Remove the SWEA Red-Tag Purge GSE and STE-D Red Tag Cover.

7. ☐ Attach IMPACT Boom EMC Deploy GSE to SWEA.
   a. Attach Gantry GSE Leg 1 and 2 to the SWEA.
   b. Attach the Spring Insertion Pin through the hole in Gantry GSE Leg 1 and 2.

8. ☐ Check Counterweight lines for tangles.

9. ☐ Verify there are no obstructions to Boom or Counterweight travel. Note: Counterweight must be at least 4.26m [14 feet] off of the ground to allow for the Boom to travel fully under counterweight.

10. ☐ Remove the Safety Pin. Verify that the SMAR is "Reset" (Pin removes easily.).

11. ☐ Verify that the Spacecraft Bus is powered "on".

12. ☐ Run IMPACT-BOOM-DEPLOY-SETUP to bring the Boom into the correct operating mode.

13. ☐ Run APL-PROC-TBD to fire the Boom Actuator.

14. ☐ Evaluation of deployment: ☐ Full ☐ Incomplete Elapsed Time: _____

15. ☐ Take measurements for above noted tests.
    Self-shock Instrument Survival: Post-Deploy CPT completed on _____

    Magnetometer Alignment: Plane: XY   XZ
    (measure angle to spirit   Base:
     level for the following)   Mag Tray:

    Stiffness Measurement: For both the XY and XZ planes, attach accelerometer to SWEA parallel with the plane. Deflect SWEA parallel with the plane (~0.5") and release. Record the acceleration data.   Filenames: _____

                         _____

Comments: _____

_____

Refer to IMP-639-DOC, STEREO Boom EMC Post-Deploy Procedure for further operations.

Checked by: _____   Date & Time: _____