Spacecraft and Ground Segments Status

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STEREO Mission Operations Manager
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STEREO Phase E Organization Chart

Mission Director
D. Quinn
Mission System Engineer
Josephine San

Project Manager
R. A. Denissen

System Engineering
D. Wilson
Subsystem Lead Engineers

Mission Operations
D. Ossing
Mission Operation Team
FDF

DSN Technical
DSN Scheduling

Payload Operations Teams

Science Teams

Project Scientist
J. Gurman

SSC
W. Thompson

GSFC
APL
JPL
NRL, UCBerkeley, UNH, UMinn
Program Status

❖ Operations
- Began automated unattended tracks April 30,2007
- Operations team is 6 full time staff. Total manpower is approximately 11 MM/M
- Downlink rates: Varies, 720 to 120 Kbps depends on antenna size and track elevation
- Switched MOC to CCSDS SLE telemetry standard in July 2011
- Began using ESA stations (35 meter) in January 2012
  - Due to very high DSN loading
  - Awaiting new NASA/ESA agreement
- Mission operations center still collecting 3 – 5 Gbits per day in support of the science mission.

❖ Special Observatory Events
- 36 instrument roll events to observe Comet ISON
- 37 High Gain Antenna Calibrations (every 6 months)
- 125 Momentum Dumps (~every 6 weeks on both spacecraft)
- >127 instrument calibration and roll events
Spacecraft Status

- Both observatories operating nominally using reduced gyro operations

- IMU status (gyros)
  - AHEAD
    - IMU-A – failed in April 2007
    - IMU-B – limited remaining life
  - BEHIND
    - IMU-A – limited remaining life
    - IMU-B – failed in January 2014
  - Reduced gyro operations uses IMU only when high rate data is required, i.e., momentum dumps, instrument rolls, etc.

- Reaction Wheel Stiction
  - AHEAD – Wheel 1
  - BEHIND – Wheels 3 & 4
Ground Segment Status

- All MOC peripheral equipment, i.e., PCs, network equipment, UPS batteries, projectors, monitors, printers, and RAID arrays refreshed in 2012.
- Refresh of Solaris Unix systems in progress
  - Switching to Intel based Sun Unix systems
Concerns

- Superior Solar Conjunction in 2015
  - Untested configuration
- MOC Unix system refresh