SMOV Status & Planning Meeting Notes 5/27/09

- **Summary**: Observatory and instruments continue to perform nominally and according to plan. PCS continues to perform nominally with previously noted jitter. All other spacecraft subsystems are performing well. WFC3 and COS science data buffer checks are completed and are nominal. ACS WFC CCDs have been successfully cooled the operating temperature of -81 deg. C. STIS has been recovered from Safe to Operate, per the revised plan.

- **Observatory Status**

  - **PCS/SAC**
    - The Pointing Control System continues to perform nominally with the increased jitter as noted in earlier meetings.
      - Investigation into the source of the jitter is narrowing in on Gyro 3.
      - Data processing has shown that the 16.5 Hz frequency to be the most significant source of jitter.
      - See attached ppt.
      - Ops Request #18454 was executed to collect 2 intervals of PN format data, providing high rate data for all 6 gyros.
    - **Looking forward**
      - Initial thoughts are that this will pose no impact to the gyro calibration in mid-June.
      - If G3 is confirmed as the source of the increased jitter
        - desirable to remove it from the control law prior to the next VDT as it masks other structural modes near 16 Hz.
        - Long term mitigation may be possible by using a notch filter in FSW. JWirzburger.
      - When do we plan on turning Gyro1 and Gyro2 off?
        - Early week 4, post-BEA, and after gyro cal maneuvers

  - **EPS**
    - Batteries topping 500 Ah every orbit.
    - CPDU1CUR up to 17.2 at about 8:13 this morning, due to STIS being on again.
    - EPS will assess the load increase, and make recommendation, likely just a limit change

  - **TCS**
    - All nominal. Bay 8 warmer than they have been, will compare with attitude.

  - **I&C**
    - All Nominal

  - **DMS**
    - All Nominal.
    - Nine science dumps coming up.

  - **486FSW**
    - Nominal

  - **SAFING**
    - All nominal.
- **SI Status**

  - **WFC3**
    - **Engineering**
      - The three WFC3 Buffer RAM dumps from last evening have been processed; the report indicates that the WFC3 buffer has been loaded with zeroes; no bit flips occurred on any of the three tests executed.
      - More taking place today.
    - **Science**
      - Nothing to add.

  - **COS**
    - **Engineering**
      - MKelly; The 3 dump files from the "Load COS Buffer With Zeroes" commanding this afternoon have been processed; no bit flips occurred on any of the three tests executed. The relevant products have been posted on the Payload FSW Web page and can be found by navigating the following links: COS -> Documentation: Software Ops -> FSW Analysis Reports -> 09147. This concludes COS science data buffer memory checks.
    - **Science**
      - Nothing to add.

  - **FGS/OTA**
    - All hardware nominal, HSTAR #11845 was closed, there are no new HSTARs.
    - There were 4 GSACQs spanning the previous 24 hours, all were successful.

  - **ACS**
    - **Engineering**
      - The ACS WFC TEC was enabled at 146/13:00 and successfully cooled the WFC detector to its default operational temperature of -81dgC yesterday morning. (See attached pdf)
      - It took ~50 minutes for the TEC to reach a stable control current draw of ~2.0amps and its initial operations show no anomalous behavior.
      - Event Flag 10 was then set via Ops Request 18447 (so stored commanding will skip ACS safing activation at 147/04:24).
      - Anneal, all looks nominal. Back to operate in about 10 hours
      - The next activity for ACS is stored command recovery from Hold to WFHROper with the WFC TEC enabled. The HRC TEC and HRC Backpowering will remain disabled (commanding blocked by Event Flags 7 and 9).
      - SBC activation is next.
    - **Science**
      - Changes to SMOV Proposal 11510 (External CTE Monitor)
        - Approved by a special PIT meeting held on 26 May 2009.
        - The proposal had been revised to include
• exposures recorded in both available CDS readout modes (Dual-Slope Integrator and Clamp & Sample)
• better assess the relative effects of CTE and bias drift on external target images
• better inform our upcoming decision over which CDS mode will be the default for Cycle 17
  • Proposal 11510 is affiliated with, but not strictly part of, the ACS-R Optimization Campaign (OC).
    o Will be scheduled after OC Iteration 3, in 159 SMS

  o STIS
    ▪ Engineering
      • Came up safe-to-operate; all nominal. All temps and voltages look good.
      • Working to forward plan
    ▪ Science
      • The team is happy to see STIS recovered from safe
        o Looking forward to seeing the data to be taken next week.
      • First internal lamp images will be taken on Tuesday June 2 between 04:00 and 0:605 UT.

  o NICMOS/NCS
    ▪ No change

- P&S Status:
  o Calendar/SMS builds;
    ▪ SMS152
      • TDRSS support is being worked
    ▪ SMS159
      • PASS products and TDRSS support being worked
  o Replans
    ▪ None

- Operations
  o FOT
    ▪ Completed Ops Requests:  #18447-0  Set ACS Event Flag 10 so ACS does not Safe @ 144/14:30z,  #18453-0  Restore normal ACS SD, tasking orders @ 144/14:35z
    ▪ #18454-0  PN format for Gyro Data Collect @ 147/02:00z
  o PACOR
    ▪ All nominal
  o OPUS & Archive
    ▪ Last night more data for COS proposal 11354 were fast-tracked.
    ▪ Data for iteration 1 of the ACS optimization campaign (proposal 11809)
      • will start coming down very early Thursday morning
      • will also be fast-tracked.