Summary: The PCS team has investigated the body-rate low-mode test failure (reported in July 20 notes); the cause is now understood (See attachment for details). The SM mirror adjustment performed on July 20 appears nominal despite the anomalous actuator voltage behavior. Subsequent WFC3 and COS observations are consistent with a successful focus move, but cannot yet be used to confirm it. WFC3 UVIS zero-point analysis is ongoing and looks nominal. The COS FUV alignment/focus process continues along with NUV SMOV calibrations. STIS has been recovered from Suspend and returned to Operate. As a result, an intercept SMS has been built to resume CCD internals. The intercept also contains the Jupiter DD TOO, which displace two WFC3 SMOV calibrations. Plans for resuming STIS MAMA operations and NICMOS/NCS cooldown are taking shape.

- Observatory Status
  - **PCS**
    - Body-rate low-mode test failure on day 200 (See July 20 notes)
      - Separate meeting (after SMOV meeting) to discuss (See the attached HSTAR_11932)
      - Investigation has shown cause to be Acquisition Initialization Command
        - sent using a default target vector for velocity aberration (VA) while VA was enabled.
        - This resulted in a step change in the VA contribution that directly impacts the vehicle pointing.
      - This was not an issue in TGS since gyro-only observations were not done.
        - With return to 3 gyro observations, we have had gyro-only observations.
      - The upcoming Jupiter moving-target observation uses guidestar tracking
        - Therefore problem should not recur.
  - **TCS**
    - Nominal
    - WFC3 thermal splinter held yesterday
      - Still need to decide on worst-case thermal configuration
  - **Safing**
    - Yesterday’s solar eclipse was handled nominally by HST
  - **Other subsystems**
    - Nominal

- SI Status
  - **WFC3**
    - Science
      - 11450 UVIS zeropoint measurements
        - Look nominal as a SM focus check
• But error bars are too large to confirm actual SM movement
  • 11431 UVIS Anneal
    o Anneal temperatures looked nominal
    o Second instance of on-orbit sms-commanded anneal
  • For more info, see the attached WFC3_SMOV_report20090722

  o COS
    ▪ Science, TKeyses
      • NUV focus sweep (program 11469 visit 94) executed on Monday
        o After the HST secondary mirror move
        o Appears nominal (but error bars are large)
        o Focus position is well within nominal breathing range for this observation.
      • Data from visits 1-3 of program 11484 (FUV Optical Alignment Focus Sweeps) has been obtained.
        o All TA appear to have functioned nominally.
        o The target for visits 1 and 2 (G130M and G160M sweeps) is fainter than expected, especially for G160M.
          ▪ Possibly due to unexpected stellar reddening
        o Analysis is proceeding to determine best focus, but is difficult.
        o The target for visit 3 (G140L sweep) appears nominal
          ▪ Data are still coming down for that visit.
        o Will have more to report on Friday.
      • 11479 visit 1 (NUV Quicklook Sensitivity)
        o Data obtained nominally.
        o Analysis is ongoing.
      • Internal program 11496 visits 1 and 3
        o Data was also obtained nominally.
        o Visit 1 (PtNe lamp 2 verification is nominal
          ▪ Data have also been analyzed as get-ahead wavelength range assessment
            ▪ no OSM2 encoder adjustment necessary to place appropriate wavelength ranges on stripe B
            ▪ Analysis is proceeding for stripes A and C.
          ▪ Visit 3 (Grating Efficiency Test) analysis is underway, results later this week.
      • USE OFFSETs for observations on Sat/Sun
        o To be delivered tomorrow.

  o FGS/OTA
    ▪ Secondary Mirror
      • Anomalous ACE bus voltage behavior during SM refocus procedure at (7/20/2009 9:33)
      • All indications are that the move was nominal
        o Although there is no direct confirmation of actuator movement in telemetry
        o Confirmation is provided by assessment of focus at the SIs.
          ▪ See WFC3 & COS reports, above

  o ACS
    • ACS SMOV is complete.

  o STIS
Engineering
- Status
  - Recovered from Suspend to Operate at 202/1615
  - CCD internals to resume July 23 (intercept SMS)
- Forward Plan
  - Tiger Team troubleshooting is ongoing

Science • CProfitt
- Resumption of STIS MAMA operations
  - Remains under discussion
  - Status briefing on Thurs, July 23, 1 pm

- NICMOS/NCS
  - Forward Plan
    - NCS restart attempt scheduled for next Tues., July 28

- P&S Status
  - Calendar/SMS builds
    - SMS208
      - Being reworked
    - SMS215
      - “Hunting and gathering” mode starts today.
  - Replans
    - SMS201
      - Intercept SMS to be delivered this afternoon
        - For resumption of STIS CCD internals
        - WFC3 DD TOO – Jupiter observation (12003)
          - Displaces
            - WFC3 1144502 (1 orbit visit) and WFC3 1179802 (1 orbit visit).
            - Both should be reschedulable in either the 208 or 215 calendar.

- Operations
  - FOT
    - 11937: COS Digitizers DCE tDC Begin and End Walk AY Limit Violation @ 202/22:42Z
      - Noise, not real
      - Limits may need adjustment
  - PACOR
    - Nominal
      - From July 21 (8am) to July 22 (8am), Pacor-A received eight events with fast-track observations.
        - The data was processed and delivered to OPUS without any problems.
  - OPUS (TEllis)
    - No new OPUS issues to report.
    - We will be fast-tracking data for COS proposals 11484, 11474, and 11470 in the next 24 hours
      - offsets have been loaded for the "use offset" genslew
        - scheduled to execute this morning for COS proposal 11474.
      - May install OPUS quick-fix 2009.2g today.
• Waiting for feedback from the NICMOS team
  o checking regression data

  o Archive
    ▪ No report