To: tgs_staff

From: Carey Myers

Date: November 14, 2003

Subject: Minutes of 11/12/03 TGS Project Meeting

Attendees: B. Boyer, G. Chapman, S. Speck, S. Stallcup, A. Welty, M. Reinhart, D. Jones, M. Boyer, C. Myers, L. Foor, M. Giuliano, R. McCutcheon, R. Pitts, A. Vick, J. Boia

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*** Next Meeting: Wednesday, November 19, 2003 – Bloomberg B448 ***
*** Topic: Continue working on design, issues, and action items ***
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1) Status from TGSOWG

- Project is still awaiting IRT comments from the PDR presentation. No official RIDs are expected.
- Project (K. Kalinowski) is requesting a status review (probably in December) because they feel that waiting until February for the next major review is too far away. L. Dunham wants to keep the status review informal and brief (4-5 slides from each area).
- Scheduling system action items from the TGSOWG:
    - D. Smith was asked to provide M. Reinhart with the Gx values relating to the various gyro combinations. M. Reinhart will write up an initial assessment of how the various gyro combinations constrain the scheduling system (see Action Item list).
    - The working group reviewed R. McCutcheon's update to ICD-26, Part 2. The suggestion was made to extract the appropriate excerpts from the SCHF and CRPF PDB files to provide current values and origins (e.g. CARD paragraph) for the updated parameters (see Action Item list).
    - The question came up about other SCHF parameters such as slew settle times, GSACQ times and whether the current values are OK for two-gyro mode (see Action Item list).
    - M. Reinhart discussed parameters used in SPSS, TRANS, and SPIKE. These appear in various base files and databases (e.g. SCIOPSDB). Basefile parameters in all subsystems need to be identified and traced back to their origins (see Action Item list).
    - In regards to the overall project schedule, the scheduling system was asked to define when we need definitions for the FHST and GSACQ PLCPs and their parameters (see Action Item list).

2) Issues

- Handling of Type 2 slew FHST shutter/availability commanding.
    - Status: The OBADWG has concluded that the Type 2 slew command group should remain essentially unchanged, i.e. the command group will continue to command the FHST shutters closed (thus forcing M2G mode), regardless of the length or magnitude of the slew and regardless of FHST visibility during the slew. This means PASS needs to 1) turn off FHST availability (and close the FHST shutters?) prior to the Type 2 slew (maybe as part of the PCPTERM group?), and 2) open shutters and turn on availability at the beginning of FHST visibility only if we're not slewing.
- Placement of Type 4 slews.
    - Status: SPSS will only schedule Type 4 slews between the second OBAD and the GSACQ. SPSS will limit the slew magnitude to .5 degrees.
- FHST maps/automaps.
    - Status: A suggestion from J. Wirzburger is to command an OBAD (map only, without an attitude correction). R. McCutcheon will assess how PASS would command this, including limiting the duration of the map (see Action Item list).
- Is the second OAD always required?
    - Status: Consider adding a SCHF parameter to make the second OAD optional (for SPSS scheduling and PASS checking). The problem is more complicated than that, but at least this would give us a simple way in Phase I of turning the second OAD off.
- FHST/GOB – Is it required and how does it work?
    - Status: No new information.
- Earth Calibrations.
    - Status: SPSS will schedule them in two-gyro mode in a similar fashion to how they are currently scheduled, using M2G pointing constraints.

3) Verification of PCS timelines against our baseline scheduling scenario

- The team reviewed the PCS timelines for FHST rate control, OBADs, and GS Acquisition (presented at PDR) against our baseline scheduling scenarios to make sure the timings are still consistent. No obvious discrepancies were detected.

4) Requirements status

- C. Darby and R. Whitman have ingested the scheduling system requirements into DOORS. There is some additional cleanup needed, but this will allow us to move forward with test planning and identifying test verification methods for each requirement.
- We need to finish the requirements cleanup (and incorporate any review comments) to have a stable set of requirements by the end of November.

5) SPSS scheduling scenarios

- S. Speck and D. Jones provided a very informative write-up (see separate attachment) describing the SPSS design for scheduling TGS FHST activities. They walked the team through the scheduling scenarios and answered questions. This is a work in progress, which we will revisit in future meetings.

Action Items

11/12/03-1 Review Gx values provided by D. Smith and assess how the various gyro combinations constrain the scheduling system.
Assignee: M. Reinhart

11/12/03-2 As an aid in reviewing ST-ICD-26 updates, extract the relevant sections of the SCHF and CRPF PDB files for each parameter being updated for two-gyro mode in order to provide current value and origin information.
Assignee: R. McCutcheon

11/12/03-3 Review additional SCHF parameters, such as slew settle times and GSACQ times, to see whether the current operational values are OK for two-gyro mode.
Assignee: R. McCutcheon

11/12/03-4 Identify all basefile parameters in TRANS, SPIKE, SPSS, and PASS that may need to be changed for two-gyro mode and trace each parameter back to its source (e.g. CARD, PDB).
Assignee: M. Reinhart (with support from the teams)

11/12/03-5 Determine need dates for definition of FHST and GSACQ PLCPs, including their parameter and scenario definitions.
Assignee: All (Primarily PASS)

11/12/03-6 Determine how PASS would issue, and limit the duration of, FHST maps and automaps using an OBAD without attitude correction.
Assignee: R. McCutcheon

11/12/03-7 Provide comments on draft scheduling system requirements document.
Assignee: All