

To: tgs\_staff

From: Carey Myers

Date: November 20,2003

Subject: Minutes of 11/19/03 TGS Project Meeting

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

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***                          NO MEETING NEXT WEEK                          ***  
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*** Next Meeting: Wednesday, December 3, 2003 – Location: TBD          ***  
***      Topic: Continue working on design, issues, and action items      ***  
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- There will be no meeting next week, due to the shortened workweek.
- Approved additions to the tgs\_staff email distribution list this week: D. Jones, J. Boia, A. Vick, J. Kucel
- The group spent the remainder of the meeting reviewing the TGS action items. See attachment for an updated status of each action item. The primary focus of discussion was the proposed updates to ICD-26, Part 2. Two changes were agreed upon:
  - In the SCHF, the times for the 1st and 2nd OADs were broken into three parts instead of two. The first part is the time required for the map and star identification. The second part, which was the time required for the attitude correction and settling, was split into two times: time required for the attitude correction and time required for settling. This was done to increase scheduling flexibility, since two FHSTs are needed for map and attitude correction, but only one FHST is needed during the settling period.
  - In the CRPF, instead of defining three levels of attitude uncertainty for each of the FHST and V1 constraint parameters, define a single set of pads (small, medium, and large) which can then be applied to the existing constraint parameters.
- A splinter meeting followed the regular meeting to review comments on the SPSS functional requirements. A handout of the requirements in DOORS was used as a baseline. Discussion focused on clarity and testability of the requirements. A similar review was held on the PASS functional requirements on 11/18/03 in Laurel. Updates from both reviews will be incorporated into DOORS. The updated DOORS

requirements for the scheduling system will be sent out for final review early next week.

Attachments

TGS Issues

TGS Action Items

TGS Issues

- Handling of Type 2 slew FHST shutter/availability commanding.
  - Status: Open
  - 11/12/03 - 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: Closed 11/12/03
  - 11/12/03 - 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: Open
  - 11/12/03 - 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: Open
  - 11/12/03 - 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.
  - 11/19/03 – Added a SCHF parameter to the proposed ST-ICD-26 updates to make the second OAD optional.
- FHST/GOB – Is it required and how does it work?
  - Status: Open
  - 11/12/03 - No new information.
- Earth Calibrations.
  - Status: Closed 11/12/03
  - 11/12/03 - SPSS will schedule them in two-gyro mode in a similar fashion to how they are currently scheduled, using M2G pointing constraints.

**TGS Action Items**

- 11/19/03-1 Talk to PRD group (M. Bielefeld) about philosophy for PDB updates, IMTOOL changes, and whether quick updates can be supported.  
Assignee: C. Myers  
Status: New
- 11/19/03-2 Incorporate the discussed changes into the proposed ST-ICD-26 updates, i.e. three values for the OAD times instead of two, and a single set of uncertainty pads (small, medium, and large) instead of pads for each constraint parameter.  
Assignee: M. Galloway  
Status: New
- 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  
Status: Open  
11/19/03 – Merle discussed this further with Dan Smith and feels this may become an issue, particularly in regards to whether steps should be taken to ensure that gyro 1 is one of the last two working gyros. Merle will write up his assessment.
- 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  
Status: Closed 11/19/03  
11/19/03 – PASS provided handouts of the proposed ST-ICD-26 updates (FROM/TO pages) along with a handout of the relevant information extracted from the SCHF and CRPF PDB files.
- 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  
Status: Open  
11/19/03 – Bob M. looked at additional SCHF parameters, but won't know whether the values are appropriate for two-gyro mode until PCS provides firmer definitions.
- 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)

Status: Open

11/19/03 – PASS provided Merle with a handout of existing Mission Scheduler basefile parameters, noting any that may be impacted by two-gyro mode.

- 11/12/03-5 Determine need dates for definition of FHST and GSACQ PLCPs, including their parameter and scenario definitions.  
Assignee: All  
Status: Open  
11/19/03 – The teams agreed that the PLCPs need to be defined by 3/1/04. PASS will provide a first-cut definition of what they think is needed by 1/1/04 and we'll push for a commanding subgroup (off of the TGSOWG or the OBADWG) to finalize the definitions by our need date. Carey will forward this plan and schedule to the TGSOWG.
- 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  
Status: Open  
11/19/03 – Discussion on whether SPSS should issue the current FHST MAP statement in the SMS which PASS would turn into a map-only OAD, or whether SPSS should issue a FHST OAD statement in the SMS with a map-only parameter set (requires an additional minor change to ICD-11). Bob will write up a proposal (with options) for evaluation.
- 11/12/03-7 Provide comments on draft scheduling system requirements document.  
Assignee: All  
Status: Open  
11/19/03 – Comments received and reviewed on the SPSS/SCS and PASS sections of the document. Updates incorporated. The updated requirements will be sent out for final review next week.