

## TGS Open Issues

- SPSS will avoid a bad magnetic field alignment when scheduling Type 2 slews and establishing initial rate control. But how do we avoid FSW locking in a bad attitude error when it is autonomously transitioning from M2G to T2G mode in the absence of a Type 2 slew (e.g. following an uncovered SAA occultation)?
  - Status: Open
  - 03/10/04 – Options to consider include: 1) Have SPSS pass IRC times through the SMS to PASS. Then PASS can avoid making the FHST available to FSW until the bad alignment period has passed. 2) Have the FSW be smart enough not to try to transition to T2G mode when they're in M2G open loop. 3) Send commands to FSW indicating when the bad mag field alignment times are. 4) Ignore the problem and let the OBADs take care of it.
  - 03/31/04 – This is not a PCS problem, because the subsequent OBADs will take out any attitude error that was locked in. However, there may be an extended period of large attitude uncertainty until the OBAD executes (due to FHST visibility patterns) during which HGA communications could be affected.
- Are there internal risks that the Scheduling Systems should identify that might impact the TGS Project?
  - Status: Open
  - 02/18/04 – Risks related to science schedulability and types of science that can be supported in TGS mode should be added. The HST Project is requesting that we use their format for defining / tracking risks and that we present our risks at the Project CDR.
  - 02/25/04 – Carey discussed additional risks with Rodger. Carey will write up and review with Rodger, then put risks into Project-defined format.
  - 03/31/04 – This needs to be addressed before the Project CDR in June.
- Provide support for target reacquisitions using the save / restore quaternion feature
  - Status: Open
  - 02/18/04 – Test with ACS (can be done in 3-gyro mode). Add to Phase II work.
  - 03/01/04 – P. Coleman found the PLCPs that support this capability. Rodger suggested that we try to arrange a test in the May timeframe, and use the results to define requirements for a Phase II implementation.
  - 03/10/04 – An on-orbit test is tentatively scheduled for May. Details of the test will be worked out via the GSACQ working group.
  - 03/31/04 – Merle is working with the GSACQ working group on defining an on-orbit test in May. It will probably cover two orbits.