

MODIS Team Meeting Minutes

Minutes of the MODIS Team Meeting held on Tuesday September 6, 1994.

Action Items:

91. Clarify the round-robin BRDF measurement requirements. Assigned to Guenther. Due 8/16/94
92. Determine the best way to balance the scan mirror. Assigned to Roberto. 7/19/94. Due 9/ 6/94. CLOSED 9/ 8/94
93. Review the Instrument Flight Operations Understanding of 8/26/93. Provide comments by 9/30/94. Assigned to Roberto 8/ 8/94
94. Provide a detailed (high fidelity) analysis of scatter in the scan cavity. The results would determine the need for PF near field scatter measurements vs scan angle. Assigned to Guenther 8/23/94 Preliminary results due 10/15/94. Final due 2/28/95.
95. SBRC & GSFC to team to investigate possible corrections for the spurious response effects in the filters. Assigned to Waluschka 8/23/94. Due 10/25/94
96. Investigate the potential impact of contamination to near field scatter. Assigned to Waluschka 8/23/94. Due 10/25/94. CANCELED 9/ 6/94. This will be accomplished by action 94.
97. Review the SBRC IR&D report on the Indium Bump process and provide comments on acceptability. Assigned to Roberto, Martineau, and Ellis 9/30/94. Due 10/ 4/94
98. Review August schedules and provide a summary of subsystem schedule status. Assigned to Davis, Ferragut, Waluschka, Martineau, Safren, and Daelemans 8/30/94. Due 9/20/94
99. Present a brief (one or two view graph) summary of the instrument status in your subsystem area (based on the QMR). Assigned to Martineau, Waluschka, Davis, Ferragut, Safren/Mocarsky, Gunether/Knight. Due 9/27/94

The following items were distributed:

- 1) Weekly Status Report #154
- 2) SBRC Memos submission from week #146
- 3) Minutes of the previous team meeting

Attendees:

✓ Richard Weber	Bruce Guenther	Larissa Graziani
✓ John Bauernschub	✓ George Daelemans	✓ Bob Martineau
✓ Rosemary Vail	Patricia Weir	Bob Silva
Lisa Shears	✓ Mitch Davis	✓ Robert Kiwak
✓ Mike Roberto	✓ Ken Anderson	Harvey Safren
Nelson Ferragut	✓ Rick Sabatino	✓ Ed Knight
✓ Gene Waluschka	✓ Cherie Congedo	✓ Harry Montgomery
✓ Bill Barnes	Jose Florez	Marvin Maxwell
✓ Les Thompson	✓ Godden	✓ Bill Mocarsky

- 1) The QMR starts at 8 am on Tuesday, September 13, in B-32, Main Conference Room. Schedules for the various splinter sessions should be available at that time. One change to note here: the quality assurance meeting is now scheduled for Wednesday, September 14 at 2 pm.
- 2) The Project has concluded we should have a second thermal balance temperature for the EM thermal vacuum test early next year. SBRC's plan for one thermal balance point had been based on cost and schedule considerations. The technical case for the second thermal balance point was presented by George Daelemans to Chris Scolese on September 6.
- 3) George Daelemans provided the following:
 - a) Diane Schuster of NSI is going out to SBRC to make measurements for thermal blankets on September 11.
 - b) IR testing of the boards in air should be complete
 - c) Thermal modeling of the SRCA is almost complete.
- 4) An Instrument Ground Systems Workshop was held at GSFC on September 7 and 8. Among the attendees were Martin Marietta Astro Space and GSFC personnel. The MODIS requests were compiled by Ed Knight. There will be a follow up meeting with SBRC during the time period of the QMR.
- 5) There was a telecon with SBRC regarding the use of the EM to interface with the Spacecraft Interface Simulator.
 - a) The work with the EM will not be on the critical path of instrument development.
 - b) The optimum SIS use window with the EM is March 15 to April 15, 1995.
 - c) For the protoflight unit, the optimum SIS use window is between mid February and mid March of 1996.
- 6) Discussions were held with Tom Pagano involving the outline for the Calibration and Integration and Test splinter sessions during the QMR.
- 7) Ephemeris data is available every one second from the spacecraft. However, there is an engineering telemetry packet every 1.4 seconds. Because of this, MODIS always needs the last two sets of ephemeris data. A phone message was left for John Mehrten that this would be brought up next week.
- 8) There was a discussion with Mike Grimaldi of Kistler Instrument Corporation, Amherst, NY, phone (716) 691-5100. He commented on the following:
 - a) Mike Believes the dynamometer can be used in thermal vacuum,
 - b) It can handle a total weight of 1100 pounds.
 - c) Mike believes the mass of the object placed on the dynamometer does not affect sensitivity. Any forces of the non-rotating scan mirror/encoder mounted on the dynamometer can be zeroed out by adjusting the amplifiers.
 - d) The dynamometer has a sensitivity of less than 0.01 N. It may do better than that value but there is no guarantee. This may mean we will have to run up to three times nominal speed.
 - e) Kistler has an instrument which measures torque.
 - f) The mounting dimensions of the top plate are 6.7 x 4 inches. Some models have different top plates.

g) Mike is faxing questions to the home office in Switzerland. Results will be faxed by Kistler to SBRC next week.

9) Technical information on Kistler dynamometers was faxed to Al DeForrest.

10) Gene Waluschka -

Gene provided the following: I plan to model or simulate a spot moving across a detector. What will be explicitly taken into account is the point spread transmittance function. The PST can be any size. Scatter effects and ghosting can also be incorporated. Extended scenes are the convolution of the scene with the PST. As the spot moves at varying speeds across the detector, energy is deposited and noise is added. This should give a good indication of exactly what happens and the exact effect that the scattering and ghosting has on the "dynamic" scene detector interaction.

Mike Roberto

September 9, 1994