

MODIS TECHNICAL TEAM MEETING

5 March, 1998

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Eric Vermote, Michael King, Bruce Guenther, Bob Murphy, Steve Wharton, Catherine Harnden, Ed Masuoka, Wayne Esaias, Bill Barnes, Mike Roberto, Barb Conboy, Bill Barnes, Dorothy Hall and David Toll.

1.0 SCHEDULE OF EVENTS

The next Science Team Meeting is June 24-26. Location: a place near GSFC TBD.

2.0 MINUTES OF THE MEETING

2.1 OVERALL

Murphy had a meeting with the Operational Modeling Team yesterday that was part of the Integration Project Office (IPO) activity to help merge MODIS and VIIRS planning efforts. He said Privette and Esaias were added as advisors from MODIS. Murphy presented at the meeting a concept on a "government science steering group" that was very well received.

King said there are EOS algorithm development budget reductions as a result of money transferred to applications and problems associated with uncoded carryover money. He is currently meeting with Asrar (HQ) to review EOS calibration and validation budgets.

King reported he has disseminated to the atmosphere group an excellent prototype on post launch visualization and data access information to be used by the MLS team from JPL via Joe Waters. The information shows ways to provide information on algorithm performance, science updates and instrument performance.

2.2 INSTRUMENTATION

Roberto reported that the thermal vacuum testing for MODIS EOS-AM1 is proceeding very well. However, a problem occurred earlier today with a command processor that was reset. This previously happened at colder temperatures but appears to have happened today at a warmer temperature. This problem will be further studied. Last, Roberto reported that the space platform is scheduled for ventback on March 14 and March 15.

Guenther said MCST is currently working with the MODIS Science Team and the EOS Project Office to determine if we can get a window for FM1 testing of the LWIR detectors. Guenther said the MCST position is that it is essential to get the window. In addition, Guenther said that previous testing of the LWIR bands on PFM were done at 79 K and not the eventual operating temperature of 83 K. He noted there may be a 1 to 2.5 nm shift of the centroid to the spectral response function per degree for the sea surface temperature bands. He said plans are to apply the test on FM1 and then retroactively apply the results to PFM. Guenther reported that MCST and the EOS AM Project Office have come close to finalize an agreement on calibration characterization.

Second, Guenther said MCST has been taking all of the MODIS data from the test program at Valley Forge through a mini EDOS and archiving the data in Building 22. Preliminary

analysis of limited data looks good. MCST has an informal meeting tomorrow with Scolese (EOS-AM Project Office) for a quality assessment of the data.

Third, Guenther said there is an opportunity to have flight operations test MODIS while in thermal vacuum at Valley Forge from Goddard (Building 32). The testing would significantly assist flight operations. However, there is a problem that first needs to be resolved between the command conversions of the CSTOL (Colorado Spacecraft and Telemetry Operations) designed for the EOS-AM instruments and the ECL (EOS Command Language) from Goddard Code 500.

Fourth, MCST has had discussions with the MODIS Science Team on SWIR corrections. Guenther said the spectral corrections for sample 1 and sample 2 of bands 5, 6 & 7 will be based on results from assessment of band 28 (a 1 km band). The spectral correction will be completed one time per pair of 500 m samples. He said this is how the MCST code will be delivered unless there is a recommendation from the science team for a change.

Last, Guenther said MCST is appending additional QA information to the meta data. The appended data are approximately 1000 words per granule. Since, the information is appended in HDF format it should provide no problems to current users software. He reported that investigators can use the information in a research mode prior to developing Version 2.2 software. He does not expect usage by the MODIS team when using their Version 2.1 software.

2.3 SDST

Masuoka provided an update of the MODIS Product Version 2 Schedule (Attachment 1). Masuoka said they have received the PGE01 toolkit patch. He said that although the patch is twice as fast as the previous one, it is still 300% slower than the calibration routine reading the land/sea mask. Masuoka reported SDST will use an original patch so as not to increase geolocation software run time any further. Masuoka said SDST is currently working with ODL (language required to register the PGE's) and the system that runs them for PGE01 (Level 1a) and PGE03 (Cloud Mask). Work will start soon for snow and sea-ice. Masuoka reported that Miami successfully tested some software with work planned to soon go through cloud clearing. Hence, he believes the remaining PGEs for oceans will be submitted within the next week. Last, SDST received approval to use FORTRAN 90. This permits SDST to use Level 3 atmosphere software and, for example, should provide a 25% improvement to the ocean data processing.

2.4 Goddard DAAC

Wharton summarized recent Goddard DAAC developments given in Attachment 2. He said they are unable to complete PGE registration due to problems from file permission privileges. In addition, the IMSL 64-bit library is needed in the installed baseline for PGE01 work to continue. This is a high priority item for ESDIS to fix. Last, Wharton reported a draft document to the GDAAC/MODIS Operations Agreement was completed. In addition, an outline was completed on the GDAAC/MODIS Science Agreement. S. Frye (GDAAC) is a point of contact until the documents are finalized.

2.5 Discipline Reports

Esaias reported the SeaWiFS initialization cruise completed last week was great. All 12 days were clear and were very conducive to obtaining measurements. MOCEAN will be debriefed next week by Carder. The next cruise is scheduled for 21 November to 11 December, 1998.

Vermote said he met last week with MCST and Platnick to discuss the SWIR leak correction approach. He said they had a good discussion and he has forwarded a document on this topic prepared by S. Platnick to the MODLAND team. He said the MODLAND QA team has requested an update on the level 1B QA and will be pleased to see the newly planned MCST QA activity. Vermote said MODLAND insists on the importance of a certification test of the ECS system and that SDST should coordinate the effort between the SCF, MODLAND QA, DAAC's and ECS. Masuoka said that Sol Broder (SDST) has recently started to work the issue and that SDST will be closely involved in the certification. Vermote reported he is the MODLAND point of contact for the MODIS Early Image Publication activity in coordination with Kaufman and David Herring (EOS-AM1).

3.0 ACTION ITEMS

3.1 Action Items Carried Forward: Status Review

1. Masuoka: Speak to SSTG about possibly revising the scheduled delivery dates for the four MODLAND PGEs that SDST does not currently have the manpower to begin work.

Status: Work is in progress.

2. Guenther and Masuoka: Assess whether Version 2.1 can be delivered by April 1.

Status: Work is in progress.

3. Masuoka and Harnden: Develop a plan for ingesting/archiving MEBS/SCF-produced standard products, especially Level 3's.

Status: This action item is in progress.

4. Masuoka: Compile a list of PGEs prioritized according to "launch plus x" for production, and provide the list to the GDAAC, Murphy and the discipline group leaders.

Status: This action item is in progress.

5. Masuoka: Contact EDC and request dates for EDC SSI&T for inclusion into the Version 2 schedule.

Status: This action item is in progress.

6. Murphy: Meet with Kaufman to discuss MODIS EOS AM product accuracy estimate scope and deadlines for the MODIS Science Team.

7. Murphy: Examine Landsat-7 and EOS-AM orbit issues.

8. Guenther: Prepare a short summary of the "second sample".

Status: Completed with the report above.

9. King: Forward to MODIS members the post launch visualization examples from JPL to MOCEAN, MODLAND and GDAAC.