

MODIS TECHNICAL TEAM MEETING

November 4, 1999

Vince Salomonson chaired the MODIS Technical Team Meeting. Present were Ken Anderson, Francesco Bordi, Barbara Conboy, Wayne Esaias, Al Fleig, Dorothy Hall, Michael King, Ed Masuoka, Harry Montgomery, Bob Murphy, and Bruce Vollmer, with Deborah Howard recording the minutes.

1.0 SCHEDULE OF EVENTS

Mini-SWAMP Meeting GSFC	November 8, 1999, 1:30 p.m. Building 16W, Room N76/N80
MODIS PI Processing Meeting Building 33, Room H114	Monday, November 15, 1999 9:30 a.m.
MODIS Science Team Meeting The Sheraton Columbia Hotel Columbia, MD	November 16–17, 1999 8:30 a.m.
Terra Launch Vandenberg Air Force Base Lompoc, CA	No earlier than December 1999
AGU 1999 Fall Meeting San Francisco, CA	December 13–17, 1999
IGARSS 2000 Abstracts Due	December 28, 1999
EOS-IWG Tucson, AZ	April 11–13, 2000
AGU 2000 Spring Meeting Washington, DC	May 30–June 3, 2000
IGARSS 2000 Honolulu, HI	July 24–28, 2000
EOS-PM Launch	December 21, 2000

2.0 MINUTES OF THE MEETING

2.1 Upcoming Meetings

There was a brief discussion about the IGARSS 2000 meeting on July 24–28, 2000. IGARSS has a list of suggested categories and is encouraging poster sessions. Salomonson would like to see MODIS and Terra presentations at IGARSS. One MODIS topic might be the rollout of early products. Abstracts are due by

December 28, 1999.

2.2 Instrument Report

Anderson reported that testing has been completed on FM1 and it would likely ship to TRW within the next 2 weeks. TRW met with Santa Barbara yesterday and today. SBRS has redone the focal plane modelling using the latest material's properties and determined that the indium gap thickness is a critical factor in mission life. The old analysis is invalid and the witness samples were not representative.

The new modelling predicts minimum lifetimes of approximately 75 to 100 cycles with minimum tolerance. That is consistent with results seen on FM1. Shear strain developing on the indium bumps during cooldown cycles seems to cause failure. Its unclear whether residual stresses exist (or are important) at nominal 83K or whether breaking selected bonds relieves stress or concentrates it.

It seems that just Band 6 is at risk of failure and it may be a stress issue. Anderson said this would seem to be a good model of what happened. However, they do not yet have the thickness measurement of the indium gap. He said it was a productive meeting yesterday and he is cautiously optimistic. A number of pieces of evidence still need to be examined. He does not believe that we have a contamination issue though.

Anderson reported no further troubleshooting on the ADC issue.

Fleig showed the group three pictures based on 11 defective channels in Band 6. The pictures showed where there would be data overlap and where there would not. The images were based on 20-30 scans (500 meter band). The bowtie effect might improve some images. Fleig said that data would be missing on 55% of pixels at Level 2 with 11 non-working channels in Band 6. However, once we regrid to Level 3, the valids could be printed. None of the display programs originally were set up to do that. Salomonson expressed appreciation for Jacques Descloitres' work on those programs.

2.3 GDAAC

Vollmer briefly reviewed the GDAAC Notes for MODIS Technical Team Meeting dated 11/4/99 (see Attachment 1). Since MOSS-3, the DAAC has set aside some files for other tests. The at-launch version of PGE03 is on hold waiting for an ECS patch to the production rules and drop packets from EDOS. Salomonson asked whether the DAAC would be ready if Terra were to launch on December 12, 1999 and Vollmer said he is confident about DAAC readiness. Vollmer commented that the MOSS-3 test went as well as any test done so far regarding the amount of data that went through the system.

King asked about issues with metadata problems in Oceans code. Masuoka replied that the Level 2 products insert fine at the DAAC. PGE03 and PGE55 have some metadata issues. However, Oceans global maps are running and have run in Ops. Miami found some problems with 8-day Oceans products.

2.4 SDST

Masuoka briefly reviewed the Launch Ready PGE Status dated 11/4/99 (Attachment 2). Many things are being tested in SSI&T. Oceans products are done through PGE54. Many Land products are being tested. Geolocation, PGE60 is still at the Science Software Transfer Group (SSTG). Everything has run, but not everything has inserted cleanly at the DAAC.

Regarding early images, Fleig said we could get an RGB of Band 31 and make an image. Masuoka said that actual versus synthetic data would effect the timing of producing images.

2.5 Oceans

Esaias said he met with Mike Moore from ECS, about 3 weeks ago, to discuss ramping up the Oceans volumes. He asked about progress on that issue and Masuoka said that ECS was still examining it.

Esaias said that Dennis Clark would be in town before MOBY servicing. Clark is planning Terra validation cruises for mid-February and May 2000, depending on the Terra launch date.

2.6 Snow and Ice

Hall said that her group would be developing a new algorithm with the 2.1 micrometer band. An aircraft experiment is planned for mid-February 2000 and it would be feasible to use MODIS data, if Terra launches in mid-December. If Terra does not launch until January, the aircraft experiment would have to be cancelled.

2.7 Terra Launch

Anderson commented that the final meeting of the AM executive council is scheduled to take place at Vandenberg Air Force Base tomorrow. The council includes representatives of the instrument teams, GSFC, and others. The technical team discussed possible launch dates that included December 3, through December 18th 1999. Launch would not likely take place after December 20th this year because that is the Y2K cutoff date.

King mentioned that there may be a 1-day science symposium at launch, once the launch date is confirmed and meeting plans could be finalized.

2.8 MAST

Salomonson asked whether presenters were ready for the upcoming MODIS Science Team Meeting. Those present agreed they are prepared. There is going to be an Atmosphere Discipline Group meeting at the MODIS Science Team Meeting. It is scheduled for the afternoon of Wednesday, November 17th at the Science Team meeting site in Columbia, MD. The MODIS Science Team, Land Discipline Group meeting scheduled for November 18th, has moved to GSFC. Updated agendas were sent to those who have registered for the meeting.

Murphy suggested that Geolocation issues be discussed at the upcoming MODIS

Science Team Meeting. Masuoka and Fleig agreed to include the topic in presentations at the meeting.

3.0 ACTION ITEMS

3.1 Action Items Carried Forward

1. Kempler and Masuoka: Present to the Technical Team an agreed upon volume for MODIS Q/A data distribution.

Status: This item remains open.

2. King: Identify an Atmospheres representative to the NOAA Product Oversight Panels.

Status: This item remains open.

3. Hohner, Fleig, and Masuoka: Include a space for MODIS early images on the MODIS home Web site. After launch, it would include downloadable early images on the MODIS site and a link to the DAAC's for obtaining products and data. The TRMM and SeaWiFS Web pages and how they process and present images can be used as good examples.

Status: This item remains open.

4. Legg: Find out when and how NASA MODIS representatives will be integrated into the NOAA review process and report on status to the MODIS Technical Team. NOAA has agreed to have MODIS representatives serve on the NESDIS data product review boards (Product Oversight Panel). However, MODIS representatives have not yet been invited to participate in an advisory panel.

Status: This item remains open. At the October 20 MODIS Technical Team meeting, Dan Tarpley suggested asking Eric Vermote to represent the Land group, and asked Oceans and Atmosphere groups to suggest representatives. Esaias volunteered to represent Oceans. King will follow up to find someone to represent the Atmosphere group (see Action Items Carried Forward, #1, above).

5. Hohner and Howard: Develop a weekly MODIS news page linked to the MODIS home Web site. It should include hot items and reflect weekly progress.

Status: This item is in progress.

6. Masuoka: Submit an EOS-PM Data Product Update to ESDIS.

Status: This action item remains open.