

## MODIS TECHNICAL TEAM MEETING

**Building 33, Room E125  
June 29, 2000**

Vince Salomonson chaired the MODIS Technical Team Meeting. Present were Ken Anderson, Wayne Esaias, Al Fleig, Bruce Guenther, Dorothy Hall, Steve Kempler, Harry Montgomery, Bruce Ramsay (NOAA), Skip Reber, and Eric Vermote, with Deborah Howard recording the minutes.

### **1.0 SCHEDULE OF EVENTS**

PI Processing Meeting GSFC	Wednesdays at 3 PM [Note new time]
COSPAR 2000 Warsaw, Poland	July 16–23, 2000
COSPAR/IRS Joint Symposium Warsaw, Poland and St. Petersburg, Russia	July 21 and July 24, 2000
IGARSS 2000 Honolulu, HI	July 24–28, 2000
IRS-2000 St. Petersburg, Russia.	July 24–29, 2000
EOS/SPIE Symposium on Remote Sensing Barcelona, Spain	September 25–29, 2000
SPIE's Remote Sensing Japan 2000 Sendai, Japan	October 9–12, 2000
VENICE-2000 (Oceans from Space) Venice, Italy	October 9–13, 2000
Ocean Optics XV Monaco	October 16–20, 2000
PORSEC 2000 Goa, India	December 5–8, 2000
AGU Fall Meeting San Francisco, CA	December 15–19, 2000
Aqua Launch	December 21, 2000

### **2.0 MINUTES OF THE MEETING**

## **2.1 Instrument**

Guenther said the focal plane temperature is about 83.6 K, however, it should be 83 K. MCST is looking back to Day 48 and troubleshooting cold focal plane issues. Telemetry data were supposed to be held at the ground station for 90 days and then transferred to the GDAAC, but the telemetry data was not transferred. It has been difficult to troubleshoot the telemetry data. Fleig asked whether they were supposed to hold the data for 90 days and then ship it to the DAAC or if they were reusing the tapes. There were also some questions about other EDOS data gaps. Guenther explained that ESDT's were not included because this is not Ku-band data, but telemetry data. He said the point of contact is Paul Ondrus.

Guenther stated that the focal plane temperature is stable. Also, Santa Barbara is recommending that we open the door 2 degrees to introduce margin while looking at accuracy issues related to focal plane floating at 83.5 K, over 50 milliKelvin. This topic may come back to the Science team.

Guenther told the group about a potential for stray light into Aqua MODIS due to scattering off of AMSR. He said that the Project would likely look at adding baffling between AMSR and MODIS.

Montgomery showed the group some slides on comparison of dn change and predicted SRCA change (see Attachment 1). His slides included two complete orbits.

All bands except Band 7 track SRCA modeled output for radiometric performance within an orbit, except for Band 7. The Band 7 performance matches the predicted SRCA output for the situation where the SRCA uses a 1W lamp, but not where it uses a 10W lamp with a ND (neutral density) filter. Montgomery said that the SRCA can be used to show the presence of electronic cross-talk in the MODIS on-orbit when used in a special operating mode, but cannot show the presence or absence of electronic cross-talk in the MODIS when used in its normal operating modes.

Guenther commented that the at-launch configuration has less electronic cross-talk than the operational configuration on-orbit. The operational configuration has been used primarily since March 6. Montgomery said that the SWIR 500 m band sub-sample differences are smaller in the operational configuration, but electronic cross-talk seems to be greater. Esaias advised that we need to examine going to the B side and Guenther said there are ADC, power supply, and timing issues.

## **2.2 GDAAC**

Kempler reported that the GDAAC has caught up because EDOS has been transmitting to the DAAC very slowly. He said that EDOS is about 8 hours behind per day. Some tape drives that failed at EDOS have failed again and they have had some equipment failures. The DAAC is closing Days 179 and 180 and EDOS is keeping a priority list per instrument. Kempler said that EDOS is upstream from the DAAC.

The group discussed EDOS errors related to ASTER daily production ramping up. When ASTER data comes down in contiguous orbits, EDOS cannot handle it. There is a small MODIS overrun, when consecutive takes by ASTER are done. This creates a backlog in EDOS in which they lose data and then cannot recover it. It may be the way it queues up; EDOS was sized to handle the daily ASTER rate, not the pulse rate. Reber said that EDOS people do not think its a basic design fault and that they are confident they can work out a strategy to deal with this issue. Salomonson asked about the prognosis on getting a continuous stream of data. Reber replied that the EDOS staff who are working the problem think that is possible. They are working through hardware, data, and staff-shortage related issues.

Kempler commented that the EDOS backlog has given the DAAC an opportunity to process special requests.

Kempler said that PGE02 came in to the DAAC complete and was integrated quickly. A new delivery of cloud mask (PGE03) has not been coming in to the DAAC complete. However, as soon as PGE03 is received, the DAAC rather than MODAPS, will run it again.

Kempler said that a tiger team would be formed to examine the flow between the GDAAC and MODAPS. He reported that the ESDT updates in the next ECS version work. Also, the GDAAC is receiving security training.

### **2.3 MODAPS**

Fleig said that MODAPS has been having problems with SGI processors over the past few days. At first, the fixes have made the problems worse. However, once fixed, MODAPS will be back up to speed.

Fleig said that they would release some Level 3 products in early July, in about a week, and plan to release 2G in September.

Vermote said the Land group is still holding to their July release date. It will be a public release of surface reflectance.

Salomonson said that he still is hearing much negative and some positive talk about MODIS. He advised the MODIS team to do our best in being accurate and focusing on the positives.

### **2.4 NOAA**

Ramsay said that he did not have any update on how NOAA's server is doing. However, they have access to some MODIS sample data sets through the FTP site and that is appreciated.

Salomonson told the group about plans to improve weather forecasting utilizing the Aqua sensors. He suggested doing something similar with Terra. Esaias mentioned that the goal for doing this for Aqua is within 12 months of launch.

### **2.5 Snow and Ice**

Hall said that she has been looking at MAS data from their field experiment and it looks good. She has also been examining anomalies from post-launch data. Hall noted that John Townshend would be giving a presentation at the IGARSS 2000 meeting at the end of July.

## **2.6 Ocean Group**

Esaias reported that the Ocean group has been doing a point by point comparison with MOBY data. He said its great and they are starting to uncover glitches in the code. The Ocean draft IGARSS paper will be done in early July. Mark Abbott has some good fluorescence images.

Esaias said the Ocean group is working with Direct Broadcast (DB) data because of some EDOS data gaps, but the DB data is not archived at the DAAC. EDOS still is missing 40 to 50 percent of Ocean validation data. The Ocean group would like to work out a way to archive some of the DB data through ESDIS. In order to do so, the DAAC may need some additional resources. Kempler said that there are some options that would require additional disk space and some software for the DAAC. Esaias said that the Ocean group would like to be able to say that DB data is available from the GDAAC.

## **3.0 ACTION ITEMS**

### **3.1 Action Items Carried Forward**

1. Esaias: Prepare a group of charts for the next MODIS Technical Team meeting that delineates the relevant issues related to the Band 31/32 gain change and the recommendation that Tmax should be set at 340K for both bands.
2. Guenther: Circulate recommendation to Discipline Leaders on plans to flag and fill dead detectors. Responses from Discipline Leads are needed by this time next week.
3. MODIS Science Team: Send updates on MODIS metadata terms/valids to Skip Reber (reber@skip.gsfc.nasa.gov). These are terms that enable users to search MODIS data. This is part of a request to the Terra Instrument teams to update metadata terms.

Status: This action is open.

4. Discipline Leads: Send feedback to Murphy and Guenther on setting flags for dead (non-functional) detectors while they are set to zero. Currently, MCST would like MODIS Science users to provide feedback on which detectors are dead.

Status: This action is open (see new action item #1, above).

5. Discipline Leads: Send MODIS Data Product table updates to Reber with a copy to Murphy. The MODIS Data Products table is on the Web at: [http://eosdatainfo.gsfc.nasa.gov/eosdata/terra/modis/modis\\_dataprod.html](http://eosdatainfo.gsfc.nasa.gov/eosdata/terra/modis/modis_dataprod.html)

Status: This action is open.

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

Status: This action item remains open.