MODIS Technical Team Meeting
Thursday, October 16, 2003
GSFC Building 33, Room E125

Vince Salomonson chaired the meeting. In attendance were Bobby Barnes, Jack Xiong, Ed Masuoka, Bill Barnes, Eric Vermote, Wayne Esaias, Michael King, and Steve Kempler, with Yolanda Harvey taking the minutes.

1.0 Upcoming Meetings

- MODIS Science Team Meeting, Baltimore-Washington International Airport (BWI) Marriott — POSTPONED – Date TBD
- EOS Science Working Group on Data (SWGD), November 5-6, Greenbelt Marriott, MD
  http://swgd.gsfc.nasa.gov/schedule.htm
- NPP Science Team Kickoff Meeting, November 4-6, 2003. Annapolis, MD.
- 2003 Fall AGU Meeting. December 8-12, San Francisco, California, USA. Abstracts deadlines past.
  http://www.agu.org/meetings/fm03/

2.0 Meeting Minutes

2.1 General Discussion

Salomonson wanted to know if anyone was going to Jim Butler's cross-calibration meeting on November 20th, and Xiong said that he was. Salomonson said that he hopes to go, but that he isn't planning making a presentation.

2.2 Instrument Status

Xiong reported that the workshop with SeaWiFS went well; he tried to provide as much information in 1.5 hours as was possible, plus he provided an informational package. Salomonson asked about the latest status of ocean color and SST with SeaWiFS and SEADAS. Bob Barnes (SeaWiFS) said that in general everything is proceeding well.

Salomonson asked if the Bruce Wielicki issue regarding data being received when the MODIS door was closed, etc., had been completed, and Xiong said yes. They changed the tracking telemetry point in the late versions. There are two telemetry mnemonics that can be used to tell if the door open/closed. The one previously used failed to report the correct value only twice in the mission. Bruce's issue is related to one of two cases. The one used in the L1B now has never failed in the mission thus far.

2.2.1 Terra MODIS

Xiong reported that there was another superset failure on the Terra MODIS instrument, and they will deal with it as they did the last one. There is a meeting today (October 16, 2003) with FOT and IOT to see if we can get one from MISR, since the 33 supersets we have now will barely hold the data. Bill Barnes pointed out that the supersets can by recycled. Xiong said that they would know more about the issue and options after the upcoming meeting.

Xiong reported that data/signal from one of the Terra SRCA lamps' spatial mode of calibration is becoming noisy. It only affects a few bands, and MCST will work with Santa Barbara to resolve the issue. At the moment, they need more data to support the analyses. The problem has to do with time delay, electrons, and moving reticle; the scan-by-scan signal of the number 1 lamp is changing. This has no impact on the on-orbit radiometric calibration.

2.2.2 Aqua MODIS
No update given.

2.3 DAAC

Kempler reported that everything is nominal for forward processing, and they've completed the push for reprocessing. There is still a 5.5 TB backlog, and Alcott continues to work on solving the issue. Kempler said that he sent Salomonson and King an email answering their questions from last week regarding the large order from Australia. Greg Leptoukh is working with the Australians to better understand their data needs with the goal of reducing their data order to just the data required. Salomonson suggested that for big orders above some size threshold level, it might be appropriate for such users to provide the media or some other form of compensation. Kempler said that there is a soft-policy in place that after a user uses $250 in media, they have to supply their own. Justice commented that that sounded good. Justice noted that we probably have Steve Running to thank for stimulating interest in MODIS in Australia and thus the subsequent order(s). Dr. Running had a very productive sabbatical in Australia.

Kempler also sent another email about the DAACs' need to shed the distribution of data to Miami for MODIS QA (now that Miami has delivered the reprocessing software and can address the MODAPS/Miami data flow interface). [Note: since the meeting Warner Berringer was identified as the contact at Miami for this effort.] Kempler asked when he could turn off the QA data flow to Miami, and Masuoka said that he is still waiting to get all details worked out, plus MODAPS will have to do a test first. He suggested that Kempler plan for 30 days, but it will likely get it done sooner.

2.4 MODAPS

Masuoka reported that MODAPS has finished the Land reprocessing, and are now doing some minor fixes to it. They had reprocessing rates of 17x on Oceans; they did the first six months of 2001 on the mtvs3 system. They should have 2001 done by the end of October on mtvs3 and will notify Wayne and Vince when this is finished.

Masuoka reported that the ESDIS project is downtown at HQ talking about the overall volumes in the archives, and they're using the charts that he had made (and shown to the team). Salomonson noted that there might be an issue with the change in volumes of Oceans and Land data in the archives, and wasn't sure that people would understand why those levels have fluctuated. Esaias said that the Oceans group has had discussions with Paula Bontempi about this before, so they should understand. He noted a desire on everyone's part to keep the data volumes as low as is useful. Masuoka pointed out that if we went back to the 96 baseline for Land data at the EDC (1.5x compression) and compared it to where we're going in Collection 5, we would actually be below that baseline. Wayne asked about Oceans volumes with regard to '96 baseline and compression. Masuoka noted that overall compression at GSFC DAAC for MODIS

products was 1.6x, while the 96 baseline was 1.5x. Masuoka didn't know how much Oceans products were compressed, though he said in the end analysis it didn't matter since in 1998 the Project used the actual compression in the archives in their calculations of the baseline so had already counted the savings from compression in their estimates of archive costs.

2.5 Oceans

Esaias reported that the team is pleased with the speed of reprocessing, and they're updating their website daily to reflect progress.

On the SST product, Esaias said that he got an email from Dr. Craig Donlan, at the UK Meteorological office, who is eager to use MODIS data. They wanted to use the data in January and February as part of a real time data assimilation study, but the lack of near-real-time (net) processing has impeded that. Esaias said that he's been working with Gene Legg on the NOAA net schedule, since processing happens within an hour for the coastal US, but processing time rises significantly when the entire globe is being processed.

Esaias said that he sent out the synopsis and recommendations from a workshop the Oceans group held with Jack Xiong and Bill Barnes (MCST). They've worked out an approach, but still need a schedule for the Oceans Aqua reprocessing.

Esaias asked if anyone had heard that SeaWiFS was going to be used to calibrate MODIS Oceans data, and Bob Barnes said that he hadn't heard anything about it. Salomonson said he hadn't heard anything like that either, and commented that making data comparisons across as many instruments as possible would be very beneficial.

2.6 Atmospheres

King reported that Paul Hubanks noticed an abnormal feature in some of the data, such as one product in the MODIS monthly aerosol optical depth over the ocean. There is a bright band across Africa in the data that indicates an ocean, where obviously there is none. He thought that it might be a problem in the L3 data; but it turns out that the problem lies in the method of compositing granules across the dateline, where –179° was averaged with +179° and the data archived at 0° longitude (Greenwich meridian in west Africa) in L2. So turns out L2 problem that will be fixed.

2.7 Land

Justice reported that he went to an international fire conference in Sydney, and was astounded at how much MODIS data are being used there. About 1500 delegates attended, and there was a summit afterwards that was attended by representatives from 60 countries. MODIS got a lot of play at the workshops. Australians are using MODIS data to do controlled burning in the rangelands of the Cape York region. This was an amazing insight into the reliability of MODIS data. Users there are very interested in what is happening with the instruments and what happening with the transition to NPP. There was also a separate, and quite successful, workshop on MODIS fire. Justices said that he sent note about his observations to Ghassem Asrar.

Justice reported that there is going to be a press conference on Aqua after the AGU presentation. He said that he might talk about MODIS data volumes being distributed,

and noted that Crystal Schaaf has materials that she will probably contribute. Salomonson observed that the panel is restricted to four people. Justice said that he still needs stuff to present, and is looking at the Land Surface Temperature product as a possibility. Kemper asked if it was only on Land data, and Justice said no, it's all of the Aqua satellite products.

Justice noted that he is still getting emails about the Land briefing that they had downtown at HQ, and noted that there will probably be another session in 2-3 weeks. The issues they're addressing focus on creative ways to distribute Land data.

3.0 Action Items

3.1 New Action Items

None.

3.2 Old Action Items

3.2.1 Tech Team to further discuss TRW using MODIS data for validation of the NPP/NPOESS production process.
Status: Open.

3.2.2 PIP to develop list of items to go into work plan for the new contract (EMD).
Status: Open.

3.2.3 Ed Masuoka to invite a NOAA delegate to the weekly MODIS Tech Team meetings or the PIP meetings.
Status: Open. Masuoka sent the invitation.

3.2.4 Kempler to bring back some proposals for how the disciplines can deal with the DAAC distribution problem.
Status: Open.

3.2.5 Masuoka to pursue MODAPS sending L1A Ocean subsets to University of Miami.
Status: Open.