

MODIS Technical Team Meeting
Thursday, June 3, 2004
Building 33, Room E125

Vince Salomonson chaired the meeting. Robert Wolfe, Shaida Johnston, Eric Vermote, Jack Xiong, Bobby Barnes, Steve Kempler, Barbara Conboy, Ed Masuoka, Michael King, and Bill Barnes attended, with Holli Riebeck taking the minutes.

1.0 Upcoming Events

- MODIS Science Team Meeting, July 13–15, 2004, BWI Airport Marriott, Baltimore, MD.
http://modis.gsfc.nasa.gov/sci_team/meetings/200407/index.html
- MODIS Vegetation Workshop II, University of Montana, 17 - 19 August 2004
- AIAA Space 2004 Conference and Exhibit, San Diego, California, September 28-30 2004. <http://www.aiaa.org/>
- Snow and Ice User Workshop, SSAI offices, Aerospace Building, Lanham MD. November 16-17, 2004.

2.0 Meeting Minutes

2.1 General Discussion

Salomonson reported that the AIRS science team is having good success with their water vapor product. The AIRS team may want to do a presentation at the Aqua Science Team Meeting on this product and would encourage comparisons with similar products from other instruments on the Aqua mission at that meeting. Members of the MODIS Technical Team in particular may also want to participate.

The MODIS Science Team Meeting will be held at the BWI Airport Marriott (see Section 1.0 for details). Science Team members, the DAACs, etc, are encouraged to prepare posters for presentation at the meeting. Those who wish to provide a poster should let Barbara Conboy know so that space can be allocated appropriately. Individuals should bring their own posters to be set up before the meeting begins.

Salomonson reported that several papers were presented on the uses of MODIS at the ASPRS Annual Meeting held recently in Denver. These were largely "applications" papers.

Salomonson requested that the new MODIS science team be included on the Tech Team distribution list. King asked if a list had been compiled, and Salomonson responded that an updated list has been prepared by Barbara Conboy and will be updated for corrections as relevant information becomes available.

2.2 Instrument Status

Xiong reported that he is working with the MISR group, and good progress is being made on reducing or reconciling differences in calibration.

Xiong reported that MCST is ready to deliver the code change to the Ocean group. There may be a "-OC" added to the version delivered to the Ocean Color group for version clarification purposes. They will produce the same results as DAAC for the subsetted data if same LUTs are used in both places. Masuoka asked if he would get a copy of any delivery that would affect SST, and Xiong said yes. Masuoka asked if there would be differences in L1b updates, and if they were only updating the lookup table; Salomonson said that what goes into the DAAC is Level 1a and Level 1b data for all bands. Johnston wondered if we are making Level 1a subsets. Masuoka noted that once that subset was gone, Kempler would have to stage the full level 1a data to generate it again. Salomonson asked what is going to be in the DAAC; he also suggested that the individual groups keep the subsets they want, but subsets should not be kept in the DAAC. The DAAC should be for reference location containing the complete Level 1 product(s). Johnston said that L1a, L1b, and L1a subset data are in the DAAC now. The end result of this discussion was that Salomonson asked Johnston take an action item to determine and describe more specifically what Level 1 data should go into the DAAC, how the different products for Level 1 should be identified, and to accomplish this by working with the affected entities so as to ensure that everyone understands and agrees on what goes where, etc.

Salomonson reported interest in getting an updated understanding on progress using the Moon to track the calibration of MODIS. Bob Barnes summarized work he is doing and explained that such effort helps in achieving cross calibration of Aqua and Terra MODIS. This work involves getting results wherein the moon is at 55 degrees for Terra can be compared to -55 degrees for Aqua. He is working to add bands 5, 6, and 7 (SWIR bands) to this effort.

2.1.1 Terra MODIS

Xiong reported that a detector in band 27 is noisy.

2.1.2 Aqua MODIS

Xiong reported that Aqua MODIS has been operating normally.

Bob Barnes gave statistics on the amount of Aqua MODIS data requests that have been met by the Ocean Color Data Processing System (OCDPS). The numbers are impressive and rising.

Wolfe asked if progress was being made on calibration issues raised by the Land Group. Xiong replied that they are working to improve Land and Atmosphere data at the same time.

2.3 DAAC

With the installation of ECS Release 7, Kempler reported that new functions within the DAAC are being turning on one by one.

The DAAC is going into a system change freeze because due to the upcoming AURA launch, though Salomonson speculated that the AURA launch might be delayed. Kempler said they would adjust the freeze if that were the case.

Kempler reported they are 82 percent complete on Aqua reprocessing.

Kempler reported the ECS has become increasingly more stable indicated by the minimal amount of unscheduled down time.

Kempler reported that 250,000 granules of MODIS data were distributed last week.

2.4 SDST

Wolfe reported that MODAPS has recovered from the power outages, and have completed 77 percent of the reprocessing for Land.

Masuoka reported that he attended a meeting with the EPA, NOAA, and NASA on fire emissions. They are looking for a baseline on fire emissions so the EPA can set regional pollution limits. The Forest Service and the EPA are looking at fires using MODIS products. They should use both burn scar and active fire products from the DAAC to estimate how much of the fire went up in particulate carbon.

Masuoka reported that the groups at the meeting were also interested in aerosol optical thickness, and he suggested that NASA science teams could give guidance.

2.5 Atmospheres

King said the atmosphere group is working on getting code delivered by June 14 for Collection 5 processing. This may be impractical, especially for Level 3 code, since all changes and sample files from Level 2 have not been delivered yet. They are making progress, but it's a big set of changes and enhancements. The algorithm in the cloud optical properties case is completely different (Fortran 90) and it has to be tested thoroughly. It has several new corrections and many scientific enhancements. King expects a good delivery, but thinks they may be missing some sub-routines for sunglint screening and dust/cloud screening over the oceans. Programmers are trying to test data compression as well, and the NCSA hdf compression tool does not work in grid format (Level 3 code) but works largely for swath (Level 2 code).

King reported that Steve Platnick will be implementing error bars on cloud optical thickness, effective radius, and integrated water path to show uncertainties per pixel. This allows users to see retrieval uncertainties as a function of cloud size (extensive vs. broken cloud) and look angles, and is based on uncertainties in atmospheric water, vapor, surface reflectance, calibration, and viewing geometry.

3.0 Action Items

3.1 New Action Items

3.1.1 Johnston to determine what data should be going into the DAAC.

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 Kempler to bring back some proposals for how the disciplines can deal with the DAAC

distribution problem.
Status: Open.