

MODIS Technical Team Meeting
Thursday, July 3, 2003
Building 33, Room E125

Vince Salomonson chaired the meeting. In attendance were Gary Alcott, Barbara Conboy, Ed Masuoka, Bill Barnes, Robert Wolfe, Skip Reber, Jack Xiong, Wayne Esaias, Michael King, and Bob Barnes, with Yolanda Harvey taking the minutes.

1.0 Upcoming events

- MODLand Workshop, July 15-16, Baltimore-Washington International Airport (BWI) Marriott.
- IGARSS 2003, July 21-25, 2003, Toulouse, France (abstracts deadline past). <http://www.igarss03.com/>
- 10th International Symposium on Remote Sensing by The International Society for Optical Engineering (SPIE). September 8-12, 2003, Barcelona, Spain (abstracts deadline past). <http://www.spie.org/info/rs>
- MODIS Science Team Meeting, September 30 – October 2, 2003, location not yet set.

2.0 Meeting Minutes

2.1 General Discussion

Salomonson offered congratulations to the many winners in the REASON CAN. The winners include Steve Ackerman, Steve Kempler, Ed Masuoka, Watson Greg, John Townshend, David Skoll, Tom Sever, John Snaze, Bill Rossow, and David Long, among others. There were 258 proposals and 41 winners.

Salomonson reported that Martha Maiden wrote to Mary Ann Esfandiari about convening a NASA Headquarters managers meeting about prioritizing which MODIS land products would be archived at the EDC DAAC. Masuoka said that he would give some information to Mary Ann to pass along. Masuoka said that the ESDIS Project has a capacity study underway to examine archive storage issues and options for solving the problems.

Salomonson asked about a user he had heard about who wanted to get a copy of the SDP toolkit via the ESDIS ftp site. Reber reported that the situation is still being worked on. What happened was that someone from another country wanted to get the SDP toolkit and needed a password to access it, and the issue was passed onto him (Reber) because of security concerns since the user is a foreign national. The toolkit is needed when one wants to process MODIS data from direct broadcast. He noted that Pat Coronado has set up a method of getting the toolkit to those whom want to use Direct Broadcast, but this person apparently didn't use Coronado's method. Masuoka said that the SDP toolkit is used by production software for all of the MODIS PGEs, so we need to provide the toolkit with it. King noted that Wisconsin is providing direct broadcast software with the toolkits stripped out so the software runs more easily on most workstations. However, not all PGEs have been converted to this format. Reber said that the toolkit was and is being developed by Raytheon, which controls access to it, and there is a concern that because Raytheon is continually upgrading it, they need to know

who is using it so that they can make sure that the most recent version is being used. Coronado's web site provides a process to enable one to access the toolkit through Raytheon; this process has apparently worked well in the past, so there is no reason to change at this point.

Wolfe reported that the EOS Science Working Group on Data (SWG-D) Data Access and Usability Workshop has been scheduled (September 9 and 10), and he is working on the logistics of holding the meeting. He is also working on lining up panel candidates. John Ranson has provided a list of candidates for the climate modeling panel, but as of yet there are no panelists for the other three panels: remote sensing scientists, applications and operational users, and educational and outreach users. He said that he might reduce the total number of panels to three.

Salomonson noted that Gene Feldman has published some MODIS ocean color products that Salomonson understood to be of a prototype, quick-look character. Bob Barnes clarified that this is part of an additional capability that uses MODIS data as a surrogate for NPP/VIIRS to provide near real-time support for field campaigns. Esaias said that he wasn't sure which algorithms were being used, but thought that they're using full-resolution subset data. Bob Barnes added that this work is part of the SeaWiFS project's efforts to develop the capability to accomplish all aspects of ocean color processing for NPP/VIIRS. It is another part of the NPP/VIIRS prototyping exercise.

2.2 Instrument Status

Xiong reported that MCST is making sure that the same M1 calibration trending is occurring now as before the solar diffuser screen anomaly. There is some degradation of Band 8, and a smaller amount on Band 9 based on the available lunar observations and SRCA response trending. He said that MCST is still working on the M1 issue for Oceans. Now that the SD screen is in place for the calibration, MCST has to have a new strategy to calibrate the bands that are normally calibrated without the SD screen. Signal levels for these bands are much smaller.

2.2.1 Aqua MODIS

Nothing reported.

2.2.2 Terra MODIS

Bill Barnes reported that the SD door has been opened, and good data is being collected. Everything else seems to be ok, and the door will be left open permanently.

2.3 DAAC

Alcott reported that the GDAAC is still recovering from the archive corruption that has been happening over the past couple of weeks. Wolfe added that EDOS has provided all the lost Level 0 data to the GDAAC. Alcott said that they are regenerating L1 products, and he met with Teague yesterday to keep reprocessing going and to keep from running out of data.

2.4 MODAPS

Masuoka reported that they are at the end of January 2002 in the reprocessing effort, which brings them up to about 70% complete. King noted that the website he checks isn't reflecting that status, and Masuoka said that he would look into it. Masuoka

checked and the DAAC has put ingest of the forward processing data stream at a high priority which has resulted in the reprocessing ingest begin 9+ days behind MODAPS production. Salomonson asked about the status of Oceans reprocessing, and Masuoka said that they've received the latest delivery of Ocean PGEs. Salomonson asked if they wouldn't complete Collection 4 until the middle of this coming November, and Masuoka replied that the earliest they could finish is around the 13th of November, 2003, if the results of the first temporal test for Oceans indicate that the PGEs are producing a climate data record quality product. If they go through the tests and uncover problems, then it would take at least another two weeks to find and fix them, which puts the finish date at the end of November. Salomonson asked if the Aqua reprocessing will still begin in early 2004, and Masuoka said that since Land and Atmospheres reprocessing will be completed in September 2003, they will be able to start Aqua reprocessing of Land and Atmospheres in October, though Oceans might have to run separately. Salomonson said that he would like to be able to report to NASA HQ in January 2004 that Aqua reprocessing is underway. Masuoka replied that Salomonson should be able to say that about Land and Atmospheres, but he wasn't sure about Oceans. (Masuoka's comments on the start dates do not include the time to revise the Level 1B code to address band-to-band misregistration and he will address the impact on the starting date for reprocessing of modifying PGE 02, which produces Level 1B.)

2.5 Atmospheres

King reported that the Terra Data Products handbook was printed a month ago and has been delivered to everyone. Jack Kaye found a couple of MODIS products that had old references. King says he knows that updated references for those products were provided before going to print, so he's looking into how the omissions occurred.

King reported that he is trying to set up an IWG meeting.

King said that today he found out that there is a problem with testing the new L2 Atmosphere Joint products at SDST. Apparently testing is being attempted on old machines that are incompatible with the latest IRIX and Linux operating systems, so he's trying to find out what's going on there. Masuoka thought that King's programmer was probably mistaken regarding older machines since the software is being tested on Pentium 4 processors running the latest version of Linux. Masuoka checked with Rich Hucek who said that PGE 82 did not meet some software delivery standards and that King's developer was addressing the problems and would redeliver PGE 82.

King reported that there is also some conflict with naming files in HDF EOS; the naming scheme is confusing to him as well as to Atmosphere's users, so they're trying to find a resolution. Apparently one cannot use more than one latitude and longitude name in the SDS, and the product has parameters at 5 km resolution as well as 10 km resolution. The SDS for these two latitude/longitude arrays needs to be the same, with different dimensions. The complication arises in the global attributes. He also said that as far as he knows, those PGEs have not gone into production. Masuoka said that he would ask Hucek about it. He also mentioned at the Monday meeting following this Technical Team meeting that PGE 82, King's new L2 code, was using the same name for the geolocation SDS for both 5KM and 10KM resolutions swaths to meet an EOS HDF requirement. Masuoka is concerned that this approach will break commercial

visualization tools and tools developed to work with EOS HDF files since it isn't clear how to identify which geolocation SDS to use in displaying a swath. Bill Ridgeway and Rich Hucek will confirm that this approach will not break the existing tools that access geolocation in the product prior to its being approved for production by MODAPS.

2.6 Oceans

Esaias reported that Oceans is working on calibration issues with MCST; there are still discrepancies, though they are having trouble identifying the source of the problem. Salomonson asked if this will delay anything, and Esaias said no. The paradigm is that if they can do operational corrections using MOBY data, that will take care of the problem as far as ocean color goes, but Esaias said that he wasn't sure about what they were going to do about M1s. There still have three years of data from the current broken-arm MOBY, so they just have to do some adjusting there.

Salomonson reported that, as a result of the activities associated with the Terra MODIS solar diffuser door and screen anomaly, there will be new anomaly reporting procedures for instruments and spacecraft from the GSFC to HQ so that HQ will be aware of these events more quickly. Esaias noted that HQ is going to put out a newsletter on Ocean Color activities and that he had provided Chuck Trees with information on the upcoming MODIS Oceans reprocessing.

3.0 Action Items

3.1 New Action Items

None.

3.2 Old Action Items

3.2.1 King and Kempler to work together on getting ESDTs for the new Atmospheres L2 data product.

Status: Closed.

3.2.2 Kempler to coordinate with Oceans group on creating documentation for the DAAC on the new Oceans L1A data subsets.

Status: Open.

3.2.3 Tech Team to further discuss TRW using MODIS data for validation of the NPP/NPOESS production process.

Status: Open.

3.2.4 PIP to develop list of items to go into work plan for the new contract (EMD).

Status: Open.

3.2.5 Ed Masuoka to invite a NOAA delegate to the weekly MODIS Tech Team meetings or the PIP meetings.

Status: Open. Masuoka sent the invitation.