

MODIS Technical Team Meeting
Thursday, March 7, 2002
Building 33, Room F225
3:00 P.M.

Vince Salomonson chaired the meeting. Present were Shaida Johnston, Eric Vermote, Wayne Esaias, Skip Reber, Steve Kempler, and Ed Masuoka, with Rebecca Lindsey taking the minutes.

1.0 Upcoming Meeting

- AGU, Spring, May 28-Jun 1, Washington, D.C.
- AMS, Atmospheric Radiation and Atmospheric Physics, first week of June, Odgen, Utah.
- MODIS Outreach Workshop on Land Cover Variables, June 3-4, University of Maryland, College Park.
- IGARSS 2002, June 24-28, 2002 in Toronto (abstract deadline past)
- MODIS Outreach Workshop on MODIS Vegetation Variables (VI/LAI/FPAR/NPP), July 15-19th 2002, University of Montana, Missoula, MT
- MODIS Science Team Meeting, Tentative, July 22-24, 2002
- Remote Sensing of the Earth's Environment from Terra, a workshop at the International Summer School on Atmospheric and Oceanic Sciences, August 25-30, 2002, L'Aquila Italy
- 34TH COSPAR Scientific Assembly, October 10-19, 2002, in Houston, TX, (abstracts due 1 May)
- MODIS Outreach Workshop on Land Surface Radiation Products, October 24-25, 2002, Boston

2.0 Meeting Minutes

General Discussion

Salomonson reported that Vermote is ready to help get the Interdisciplinary Global Sampler (IGS) data set ready for the CD and for posting on MAST's ftp site, but the disciplines need to get the inputs to him. Salomonson said he would ask Bill Ridgway to prepare the Atmosphere inputs. Esaias said that Ron Vogel would be the contact for Oceans data.

Salomonson wanted to confirm his understanding of the order for reprocessing various epochs of the L1B: B-side data from November 4 2000 through June 1, 2001; A-side data from July 2, 2001, to the present; and lastly February 4, 2000, through November 2000. This will take a year and a quarter and will be done roughly December 2003. Esaias asked if that implied a complete reprocessing of all inputs, and Salomonson said yes.

Salomonson indicated that he received two sets of feedback from Diane Wickland about the IGS data set. One feedback asserted that pointing or referring to old ATBDs is not sufficient because they are perceived to be or actually are old; i.e., don't appear to have been updated recently. There should be a current "user guide" to help the user understand the product and the way it is produced, its quality, etc. Upon looking for such guides in

the land group, he found “user guides” for surface reflectance, snow, and land surface temperature, but not all appeared up to date (i.e., they were many months old). In addition, they were not easy to find. Masuoka said that he believed there was a link from the EDG to the DAAC that pointed people in the right direction. Salomonson urged that the guides should be easily found; i.e., there should be as few “clicks” as possible to find the information, and it should be clearly labeled as “User Guide.” This particularly should be true after one arrives and the home pages for MODIS land, oceans, atmosphere, or MCST.

Esaias indicated that Oceans has several useful things available already: ATBDs, product quality statements that include what flags mean, where to go for help, the validation status of products, etc. They are in the process of making a “User Guide to Ocean Products,” which may have a print as well as online version. This is close to being a finished draft. He says that they have gotten feedback that people want a hard-copy desk reference. He would like to compare this to what the Land team produces as user guides.

Salomonson added that with the forthcoming software release, people are going to want to know about how to use the data. Pat Coronado (Direct Broadcast), is going to link to our user guides, but they have to be there. Esaias clarified that what the DB software users will need is not really a user guide to the data products, but a user guide on how to install and run the software, tools and files, etc. A user guide to the products would contain information like how the chlorophyll is scaled, or how to apply the QA flags. Salomonson agreed that really we are talking about two classes of documentation, and they both need to be done.

Masuoka said he would talk to Coronado about developing these guides that will tell people how to run these codes outside of MODAPS. Salomonson said that Coronado planned to do one guide to show what is involved, but they will not so one for every product.

With respect to Aqua, Salomonson reported that Chris Justice suggested we might want to talk about having a PR template ready to go prior to first light that could just have images plugged in when they arrive. He thought it was important to emphasize synergy between Terra and Aqua, like build up and dissipation of clouds, or wavelet analysis. Salomonson asked Lindsey to begin thinking about that.

There was discussion about Aqua WHOM, and whether there would be one, and Kempler said no, but that Aqua data would eventually be available via Terra WHOM. The idea was that the new version of EDG was designed to allow people to develop custom interfaces for ordering data if they want, which should eliminate the need for an “Aqua WHOM.” Esaias said being asked to develop his own interface is not a solution for him. He doesn’t have the time for that. Vermote, on the other hand, said he probably would like to design one.

Data Processing

Kempler reported that processing is going well. With respect to 6A05, EDC is now running it well, and problems with data access related to installation of 6A05 have been fixed. Reber said that ESDIS had reported that search time had improved by a factor of 2. Could Kempler confirm that? Kempler didn't know. Vermote added that search time has never really been a problem with EDC, and we would have to wait and see how it worked at the GES DAAC to see what improvements come out of it. Kempler said they are meeting with ECS three times a week to discuss installation, and they are shooting for a March 20 installation. If it slips beyond April 8, they will postpone until post-launch.

He also reported the CERES team has incorporated MODIS data into its critical data path. Both they and MOPITT had expressed support for strengthening MODIS production.

Masuoka said that SDST had put in its request to the Science Working Group on Data (SWGd). The request emphasized 1.) getting the MODIS archive volume baseline correct for Aqua MODIS products so that we can store everything we make 2.) increasing archive volumes at the GSFC DAAC so that we can do separate discipline reprocessing, and 3.) increasing the ingest rate to 4X for Aqua. The SWGD has asked us to work these production issues with the DAACs.

Masuoka said that there had been a meeting about data pools between the MODIS Land Team and the ECS contractor, and that out of the data pool at 25 TB of disk will be dedicated for MODIS data, 5 TB of which will be allocated for rapid fire. Reber asked what levels of data would go into pools. Masuoka said that for the Goddard DAAC it might be primarily L1 products, however, he said that the DAACs make the decision on what to put into the data pools.

Masuoka reported that MODAPS is up with the DAAC leading edge (~2 days behind real time), and getting ready for a 3-day test of Linux processors. Kempler added that we are not reprocessing right now, only forward, which is one reason why production is so close to real time.

EOSDIS Update

Reber reported that the ECS metadata update tool was still on schedule to be delivered or released on March 7. Kempler added that some tools were pulled from the 6A05 delivery, but will arrive on the heels of that. Salomonson asked about the subsetting/subsampling tool on the DAAC web page for L1B, and wondered if a tool would be developed for higher-level products. Reber mentioned that there are concerns about the soon-to-be-released tool from the University of Alabama; some instrument teams have made very creative use of HDF that stretch the format's limits, and which can make this subsetting tool not work for some or all of their products. Reber asked if the team's Aqua check-out timeline could be sent to Mike Moore. Masuoka will send it to Moore and to Kempler.

Reprocessing

Johnston reported that they had a series of meetings setting the schedules for Collection 4 reprocessing. They were trying to line up schedules of when code should come in. One of the issues is that MCST is asking for all desired changes by end of March. We probably don't want those changes to be put into the forward stream until August 1, because if they are put in right away, Oceans will need to check them out and make sure the higher-level Oceans products aren't affected. Since they are busy preparing for the code delivery for their reprocessing, it is not a good time for them to be also testing a new L1B. Vermote suggested only integrating changes that would not affect oceans, like the improved cirrus correction. Johnston asked what the urgency was. Vermote said just that the correction is ready and will improve other products.

Esaias proposed a solution to the problem of what to do when a change is proposed for Level 1B in the forward processing stream that will impact Ocean product quality. In the past, we have had to choose between not making the Ocean products for 3 months while University of Miami software and/or LUT changes were developed and integrated into MODAPS or else holding up a change for all disciplines if it affected the Ocean bands. Esaias suggested that MODAPS could make Ocean products using the older L1B and Land/Atmospheres using the new L1B. If it is not possible for the GES DAAC to send both versions of L1B for the forward stream then MODAPS would make the old version of L1B from the Level 1A Ocean subset that GES DAAC pushes daily to Miami. The advantage to this approach is that the additional volume required by MODAPS is only 17GB/day.

Vermote said he was not happy with the idea that after April 15, L1B would be frozen until October. They have changes that won't make the April 15 deadline, but that they would like to get in before L1B/atmosphere/land reprocessing in the fall.

Oceans Update

Esaias reported that people at Santa Barbara Remote Sensing really liked the press release on SST. He gave a seminar on the ocean products to staff at SBRS. Esaias thanked MODAPS for producing the annual SST, which looks very good. February 2002 SSTs are online, and visitors can make their own predictions about El Niño. He reported that tests are underway to between MODAPS and the DAAC to determine what rate can be sustained for reprocessing. He stated that the reprocessing code delivery is expected to be on time according to Bob Evans. It appears that RVS changes are getting more difficult to fix in a cosmetic way, and so they look forward to the update to L1B that will account for them.

Masuoka reported that he had spoken with Gene Feldman about the merger of SeaWiFS and MODIS products. Esaias said that he thought the plan was to simply make big bins to handle monthlies at either 4.6 or 36 km, and do a simple average, with some statistics. Masuoka said that Feldman wondered if Esaias could set up a meeting next week to discuss whether the 9 km could be used since SeaWiFS has a 9 km.

Land Update

Vermote announced that the final Land Outreach workshop (Radiation products) had been planned, and would be held in Boston around October 24-25, 2002.

Concluding Remarks

Esaias said that he wants to seriously discuss the possibility of with Land and Atmosphere folks about generating a MODIS PAR. External sources are not consistent. The DAO is going to change their model again and again, and that puts a blip in our time series that is not insignificant. MODIS has as standard products things that could make a great PAR.

3.0 Action Items

3.1 Discipline leads to meet to resolve the issue of beta-release code and science-quality code, and what we need to say about it.

Status: Open.

3.2 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.

Status: Open.