

MODIS PI PROCESSING MEETING

June 9, 1999

Eric Vermote chaired the MODIS PI Processing Meeting. Present were Tan Aslam, Sol Broder, Wayne Esaias, Bob Evans (Miami, via teleconference), Al Fleig, Bruce Guenther, Rich Hucek, Steve Kempler, Mike Jones, Siri Jodha Singh Khalsa (NSIDC, via teleconference), Jim Lacasse (EDC, via teleconference), Mike Linda, Ed Masuoka, Bob Murphy, Shirley Read, Bill Ridgway, Mike Teague, Bruce Vollmer, Sue Welch (Miami, via teleconference), Robert Wolfe, Bob Woodward, and Gang Ye, with Deborah Howard taking the minutes.

1.0 SCHEDULE OF EVENTS

Next PI Processing Meeting GSFC, Building 32, Room E103	July 13, 1999, 9:30 a.m. (Tuesday)
--	---------------------------------------

Note: The PI Processing meeting is usually held on a Wednesday. Please note that the July meeting will be held on a Tuesday. Also, no PI Processing Meeting will be held in August. Regular meetings will resume in September.

2.0 MINUTES OF THE MEETING

2.1 Overview

Eric Vermote began the meeting by reviewing the Agenda (Attachment 1). The group agreed to reorder some of the agenda items and delete others. A new action item (#9) replaced the last item on the agenda. Wolfe took the new action to schedule a meeting before the next PI Processing meeting for those interested in a discussion regarding labeling of multiple versions of ESDTs.

2.2 Review of Action Items

The group reviewed the action items (Attachment 2) from the last PI Processing Meeting on May 12, 1999 (see section 3.0 Action Items for status).

2.3 SSTG Plans

Mike Linda reviewed Action Items and SSTG Plans (Attachment 3). He took an action item to prepare a table that compares the various lists of Ocean ESDTs and present it at next PI Processing meeting in July. He said that the lists that he received from ECS, Miami, and others don't seem to match each other. SDST is compiling a list of what the ECS baseline should be. Tan Aslam asked for a date for the baseline. Linda suggested using 5/9 as the baseline. Masuoka asked Aslam whether one list included at-launch and post-launch and Aslam replied

that it did. Masuoka suggested that the next step is to review and update that list. Bob Evans added that his group at Miami has been looking over Aslam's list and have some updates.

Linda reviewed the SSTG Plans (see Attachment 3). He reported that the Level 1B readers are done and the push currently is to get Level 2, Level 2G and some Level 3 ready to run in the upcoming MOSS-2 test. There are also 12 products to insert at the DAACS. He reviewed the at-launch status of PGEs from SSTG's perspective and said that SSTG has a minor amount of work left on this. Masuoka asked whether SSTG had completed the Level 1 subsetter and where it would go. Linda said it would go in PGEs running or ready at MODAPS and GDAAC.

Next, Linda went over the SSTG Plan for Oceans. He said that SDST took the 5/9 delivery and ran it through quickly, they still need to do a followup. The focus now is to get them running. Then they will go back and do SSTG tests. One new PGE likely will be PGE18. Evans said that PGE18 should be post-launch and Linda noted that. PGE50 has not yet been incorporated into the SSTG plans; a patch for PGE 50 needs to be integrated. Linda said that two new PGEs for yearly and monthly will be PGE72 and 73; Miami is the author of these. He reported that sorting out the new ESDTs should be a top priority and that since PGE18 will be post-launch it will drop in priority. Most of next month will be spent at debugging. In response to questions about DAAC inserts not being on the SSTG list, Linda said it doesn't show up on the list because it is a task across the team rather than SSTG only. He said they have started on the 12-point plan and are working on some of the Metadata issues.

Linda reviewed the SSTG Atmosphere Plan. He said that PGE04 was done recently. Ridgway said that Gumley had said they had accelerated the mask and asked whether that is in the code now. Hucek answered that it is in PGE03. Linda said that some Metadata updates for PGE05 should be completed by June 11. He said that he understood that Atmospheres agreed on an overview and approach for PGE55; a detail plan is needed. A full SSTG process is planned for PGE70 by the end of June. Masuoka said that there is still a lot of work to be done to get all products inserted into DAAC and orderable. Linda noted that the Land Plan was treated a little differently because it is organized differently. He said that PGE12, 13, 14, and 15 need new Perl scripts for full MODAPS integration. For PGE16 a new problem with a deficiency in an underlying Perl library has occurred. Also, PGE33 was returned to the developer this morning for debugging.

A brief discussion on current SSTG issues followed. Atmosphere issues include working out the revised cloud mask (CM). It can run without clear sky radiance (CSR); CSR is post-launch. Masuoka asked who reviews the production rules.

Hucek replied that it would be the SCFs evaluating the production done in MODAPS to see if it was integrated correctly. Land issues include emergencies such as the need to rewrite several Perl scripts very quickly distracting from normal progress. Masuoka said he would like to see a stabilized set of PGEs. Linda said that is a two-sided process with change going on in MODAPS and in PGE development. He said that the SSTG focus is on debugging. In the current mode of trying to have all the pieces work together, the fewer changes the better.

2.4 MODAPS Test Plan Update

Ed Masuoka reviewed the MODAPS Test Plan Update (Attachment 4). The Operational Readiness Exercise is to be done in mid-July. In the attachment the changes are in italics. Masuoka said that some members of the MODIS Science Team have ordered products and QA tested them. He noted that MOSS-2 would not include 1999 ancillary data changes and that Robert Wolfe would discuss using 1999 ancillary data in the presentation on the Y-day test. The DAAC will be doing production for part of the Y-day test. Kempler said that some breakthroughs have occurred at the GDAAC—the DAAC ran 4 hours of data through unassisted and an 8-hour test began last night with good progress. Masuoka said that there is a Y-day test in MODAPS—GDAAC will participate in part of it.

2.5 MOSS-2 Test Update

Tan Aslam reviewed the MOSS-2 Test Objectives (Attachment 5). Masuoka asked whether the ECS PDR server would be available to deliver products to the DAACs and when the ECS PDR server would be available. Kempler took an action item to check on the timing of the PDR server availability. Aslam and Jones took an action to get the appropriate DPREP data for oceans in MOSS-2. Aslam said that he would like to push some atmosphere and ocean samples during SIPS delivery. Sample Land products and PDRs to EDC and NSIDC will be part of an overflow test. Masuoka asked if this would be an informal test or a formal part of MOSS-2. Kempler replied that it is not part of the formal Moss-2; rather it would be done informally. Aslam said he would select three samples for this pre-test.

Aslam said that in week 3 of the MOSS-2 test a 2-day dry run would take place. Wolfe said that 1 day would be simulated data and 1 day would be instrument data. Also, MODAPS subscriptions will be reviewed or updated at the GDAAC.

2.6 V1 MODAPS Development Status/Loaders

Gang Ye reviewed Version 1 MODAPS Status (Attachment 6). He said that all products can be seen in MEBDOS. He also said that all loaders are ready, but that does not mean that all the PGEs are running yet. Wolfe asked whether Ye was working on other loaders. Ye replied that he was working on MD05, the

yearly productivity loader for oceans. He said that some debugging and enhancements are next for Version 1.

2.7 X-day Test Status/Results

Masuoka briefly referred to the Launch Ready PGE Status for 6/9/99 (Attachment 7). He said that this updated fever chart shows what is running in MODAPS V1 or GDAAC 4PY. He noted that the Land group was pleased to see their performance, especially with 8-day data. Masuoka said synthetic data needs to be ironed out before the test and has plans to do that for the Y-day test. Also, the MEBDOS interface needs improvement. Evans said that it would be good to see which products are available indicated on the status page for Oceans. Chen and Teague took two actions to list Oceans products on the granule status page (#5) and to extend the production status page to include the days for which products are available (#6).

2.8 Y-day test proposal

Robert Wolfe reviewed Y-day Test Goals (Attachment 8). He said that a major goal of the Y-day test should be operations training. Other goals include joint MODAPS /DAACs production planning and assessing operational and system performance. Wolfe said that more 8- and 16-day PGEs should be included in the Y-day test and that all changes should pass the engineering test. For the X-day test, only about 80% passed engineering test. Vollmer asked whether someone was coordinating production. Wolfe replied that Shirley Read is coordinating ancillary data. Teague added that the current plan is to run synthetic data in version 2.1.5 rather than L1B 2.2.0.

Wolfe then presented a proposed MOSS-2 and Y-day Test Schedule (Attachment 8). He said that by the time we begin the Y-test we want the synthetic data running and we may move the Y-test back a bit until this is done. Kempler asked whether the schedule realistically includes time for possible fixes and time for contingencies. Aslam said that the timing should reflect normal data flow. Guenther commented that MCST would like to intentionally simulate problems and test for where the code breaks. Aslam said that is in Version 1 and Version 2 acceptance tests. Masuoka mentioned the need for a coordinated test. Vermote the at-launch data is where we will see actual problems and Kempler commented that this test is good for baseline testing. Wolfe took an action to look at what operational tests are needed after the Y-date test to determine how well the entire production system (MODAPS, DAACs, and network) performs when problems are encountered (action #4). Kempler said that he would check the DAAC schedule to see if they can support this test functionally. Vollmer said he would like to see some time to look at things that get broken during this test.

2.9 Operational Procedures

Mike Teague reviewed Suggested Production Procedures (Attachment 9). He focussed on the production procedures relating to the interfaces between the SDDTs and MODAPS. Regarding the long-term production plan, he would like some clarification on .5x. Masuoka said that .5x is for FY1999, .75x is for FY 2000 that begins in September 1999. Ridgway commented that we need to know the benchmarks from the testing and Wolfe said that we need a contingency plan—if we fall behind in production, how do we produce 50%, we need a prioritized plan.

Murphy asked whether the ocean, land and atmosphere reduced production plans would all run at the same time. Teague said that is a scheduled part of the upcoming Y-day test. Wolfe commented that the group was talking about a set of engineering tests to assure readiness to run these plans during the Y-day test. Teague said that Atmospheres' Plan A is 8-days on and 8-days off rather than 2 weeks out of 40. He suggested that the Production Planning meetings held during the X-day test continue during Y-day test for launch through L+3 months. Esaias took an action item to assign an Oceans coordinator for production planning (#7). Teague recommended using production reports to show progress and projected completion dates on a daily basis. Wolfe added that these should include past history and Linda said that SDST has started to collect history files. Teague stated that the Tic-tac-toe charts would be available on the Web.

2.10 MODAPS Hardware Plans/Schedule (MODULAR, MO1, MTVS1)

Ed Masuoka briefly reviewed the MODAPS Hardware Plans (Attachment 10). He said changes from the previous meeting are in italics.

2.11 SIPS “Deliver” Interface Status/Ingest of GDAAC Products into MODAPS/Error Handling

Tan Aslam reviewed SIPS Interface Status (Attachment 11). He said that we need to use the actual DPREPped Orbit and Attitude and that ingesting the data and delivering product is going well. Mike Jones asked whether a date has been specified for linkage files. Aslam said that the linkage files currently are not designed for Version 1; that has been postponed to Version 2. He asked whether the SIPS exists in the VATC in 5A for the ECS PDR server. Jim Lacasse said that is scheduled for the end of November. Lacasse added that ECS has agreed to put in a SIPS 4Py patch by the end of July.

2.12 SIPS “Insert” Interface Status (Ingest Of MODAPS Products in DAACs)

Tan Aslam and Mike Jones reviewed the MODIS ESDT Insert Status (Attachment 12). Wolfe asked how these processes are documented and Aslam replied that the details would go into the procedures manual. Vermote asked what the date indicated. Jones replied that it is the date when the MCF is in the MODAPS configuration. The date is the last time that he looked at a particular ESDT. Once they have a matching MCF, then they try an insert to the DAAC They want to be

able to order the product from the DAAC. Attachment 12 is a sample of the status; the status process still is being developed.

2.13 Ancillary Data Status

Shirley Read reviewed Ancillary Data Status (Attachment 13). She said that no progress on the NISE snow and Sea Ice Data has been made. Kempler said that NISE is not on the DAAC progress chart. Read replied that it is optional and not available yet. She suggested taking simulated data and running it in a current timeframe before running actual data.

2.14 Update From DAACs On Processing, Archival, And Distribution Test Schedule

Kempler briefly reviewed the Demonstrated Operations Status of GDAAC Mission-Critical Capabilities dated 6/3/99 (Attachment 14). Vollmer reviewed the GDAAC PGE Status (Attachment 15). He said that the data corruption problem was solved and the DAAC had a successful 8-hour run. Issues included that the DEM access via SDP Toolkit must be up to date. A problem with the toolkit can turn shared memory off or work with a previous version of the toolkit. In version 5.2.1 there is a problem only when shared memory is on; the DAAC needs a working version. Another issue is that the PGE03 time check must be tested. When Level 0 data comes out of EDOS it must be on the minute boundary or it does not work in the DAAC. Vollmer said test status is available at: <http://gsfcsrvr8.gsfcmo.ecs.nasa.gov/GATES/MetadataTesting.html>. Lacasse commented that MOSS-2 would not take place until the end of July for EDC. He said that 4PY Elmira is going into Ops mode.

3.0 ACTION ITEMS

3.1 New Action Items

1. Linda: Prepare table to show comparisons of lists of Ocean ESDTs and present at next PI Processing meeting in July.
2. Kempler: Check on timing of the availability of the PDR server with the goal of using the ECS PDR server for the MOSS-2 test.
3. Aslam/Jones: Make sure that appropriate DPREP data is available for producing Oceans data in MOSS-2.
4. Wolfe: Look at what operational tests are needed after the Y-date test to determine how well the entire production system (MODAPS, DAACs, and network) performs when problems are encountered.
5. Chen/Teague: List Oceans products on the granule status page.

6. Chen/Teague: Extend the production status page to include the days for which products are available.
7. Esaias: Assign an Oceans coordinator for production planning.
8. SDDT leads: Confirm/revise the discipline 50% production plan and send to Teague by next Wednesday (June 16).
9. Wolfe: Schedule a meeting before the next PI Processing meeting for those interested in a discussion regarding labeling of multiple versions of ESDTs.

3.2 Action Items Carried Forward

1. Linda: Track Ocean ESDTs issue.

Status: Open.

2. Jones/Ridgway: Work up agreement for MODAPS to push for some fraction of Atmosphere products.

Status: This action item remains open. Ridgway gave Jones a proposal that is to be reviewed.

3. Hucek: Where does the clear sky radiance process run, DAAC or MODAPS? Report at next PIP meeting.

Status: This action item remains open.

4. Jones: Work ephemeris and attitude issues for MOSS-2 and Y-Day Tests.

Status: This action item is still open for the Y-day test. See new action item 3 above for the MOSS-2 test.

5. SDDT/SDST: Develop a process for promoting algorithm changes.

Status: This action item remains open.

6. Jones: Find out when machine-to-machine ordering interface will be available in the ECS system.

Status: This action item remains open.

7. EDAAC/Broder: Work network transfer issues for MODAPS to EDAAC.

Status: This action item remains open. Sol forwarded an e-mail from Andy Germain that said a datasink is being installed at EDC to improve the network transfer rate.

8. All Discipline Leaders/Murphy: Product release policy, mechanism needed. Bob Murphy to collect.

Status: This action item remains open.

9. Masuoka: Determine if more tapes are needed to save data before SIPS interface is ready at GDAAC?

Status: This action item remains open.

10. Fleig: Develop timeline for early images, publicity images.

Status: This action item remains open. The focus has changed to include images appropriate for press conferences.

11. Masuoka: Update baseline for larger ocean products volume.

Status: This action item remains open. Masuoka would like assistance from Oceans, including definitive information from Esaias and Evans before he updates the baseline. This is an ongoing action.

12. Masuoka, EDC and NSIDC DAACs, ECS: Develop a contingency plan for a SIPS patch to 4PY if the drop 5A schedule slips for EDC or NSIDC.

Status: This action item remains open. It is an ongoing action.

3.3 Closed Action Items

1. Masuoka: Ocean ESDT Implementation timeline needed.

Status: This action item is closed.

2. Kempler: GDAAC person needed to work network issues with MCST.

Status: This item is closed.

3. Ridgway: Develop an atmospheric SDDT plan and e-mail to PIP meeting participants.

Status: This action item is closed. The list was sent; Ridgway will update it as needed.

4. Kempler: Develop data distribution priorities for limited distribution capacity.

Status: This action item is closed. The GDAAC has an agreement with MODIS to distribute data according to the MODIS QA requirements as carried by Sol Broder. Kempler will alert discipline leads if any requirements are not approved for QA pulls. This is an agreement, not a policy, and will be guaranteed through operational procedures.

5. Masuoka/Kempler: Develop a test plan for ACDIS interface if needed.

Status: This action item is closed.