

MODIS TECHNICAL TEAM MEETING

September 1, 1994

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Bill Barnes, Bruce Guenther, Dorothy Hall, Ed Masuoka, Al Fleig, Steve Ungar, David Herring, John Bauernschub, Wayne Esaias, Chris Justice, Locke Stuart, and John Barker.

1.0 SCHEDULE OF EVENTS

Sept. 13 - 14	MODIS Quarterly Review at SBRC
Sept. 15	533Q Financial Reports due to Teresa Mautino
Sept. 20 - 22	SDST Simulation Data Workshop, Flathead Lake, MT
Oct. 11	Calibration Working Group, Holiday Inn, College Park, MD
Oct. 12 - 14	MODIS Science Team Meeting, Holiday Inn, College Park, MD
Oct. 15	Quarterly Technical Report for July-Sept. due to Barbara Conboy
Oct. 17 - 18	Oceans Productivity Working Group, Greenbelt Marriott Hotel

2.0 MINUTES OF THE MEETING

2.1 Collecting Information on MODIS Processing for ECS PDR

Masuoka summarized SDST's exercise to gather information about the MODIS team's software for producing standard data products in terms of resource requirements and processing scenarios. Masuoka stated that on Oct. 3, he will deliver the results of his survey to the *ad hoc* working group on production. He stated that Bruce Barkstrom requested very specific information on the number of files each scientific algorithm will need in order to run. He needs information on the resources each algorithm will consume and the amount of data transmitted to the Science Computing Facility (SCF) for quality assurance. The objective is to provide this information to the HAIS system modeling group which will use it to project EOSDIS' processing resources and costs.

Masuoka said his approach to getting this information from the team is to provide a summary list of MODIS products and a strawman processing scenario for each product. He will then want the Team members to review the list and scenarios for accuracy and correct the ones which are incorrect. The scenarios and lists will be sent to the Team by Sept. 15 with input due back by Sept. 27 so that it can be reviewed and forwarded to the Hughes modeling teams by the Oct. 3 deadline.

Masuoka added that Steve Wharton, EOSDIS Project Scientist, is considering conducting an algorithm implementation review. This review would consist of developing operation scenarios and product descriptions from a computer science perspective. Masuoka said that Wharton may require input from both SDST and the MODIS Science Team.

Masuoka reported that Matt Schwaller of the EOSDIS Project needs to know what ancillary data the Science Team will require. Masuoka is unsure in what format Schwaller wants the information and will pursue the matter further with him.

2.1.1 Global Snow Cover Grid

Fleig pointed out that Salomonson's and Hall's Snow Cover Product requires successful functioning of many (8 or 9) predecessor algorithms, developed by other Team members, before it can be run. The question is: What can be done to provide consistent test data for all of these algorithms in order to test the snow algorithm?

2.2 MCST Reports

Guenther reported that MCST is proceeding with its independently-funded study on spurious light response in MODIS. He said it is likely that MCST will have to do software corrections in order to come close to the required calibration accuracy; those corrections will be very computer intensive. It is very unlikely that the calibration accuracy problem will be fixed on the protoflight model.

Salomonson asked if the light response problem mentioned above is exclusive of the problem of the sun hitting the SRCA (Spectroradiometric Calibration Assembly) fold mirror during calibration testing. Guenther responded that the sun hitting the SRCA fold mirror is not a serious problem because MODIS won't use its solar diffuser very often. He stated that the spurious response problem lies in the fact that MODIS has larger focal planes, higher digitization, and more demanding calibration requirements than previous instruments like the Coastal Zone Color Scanner (CZCS) and the Advanced Very High Resolution Radiometer (AVHRR). He plans to brief the Science Team at the upcoming Science Team Meeting and at the Spring meeting he hopes he will be able to recommend a solution and get a consensus agreement from them.

Salomonson asked how MCST will correct the spurious light response in MODIS. Guenther stated that it is possible to have the instrument "look" off the limb of the Earth at cold space—there is in the infrared a high thermal contrast that might provide phase knife edge tests with time and orbit. Or, Guenther said, MODIS may use the moon as a calibration source because it has a known spectral shape. The "best" solution will be investigated.

2.3 MAST Reports

Salomonson announced that, effective Sept. 16, Janine Harrison is resigning as MAST Team Leader. Salomonson stated that Harrison, who has so ably provided Team Member support through administrative functions related to contracts, meetings, and a myriad of other matters, will be sorely missed.

3.0 ACTION ITEMS

3.1 Action Items Carried Forward

1. *MODIS Team*: Determine how, given the MODIS bowtie effect, MODIS images will be produced at launch.
2. *Science Team*: Provide information to Salomonson regarding the significance of the timing error issue.
3. *Fleig and Ungar*: Interact with the group leaders prior to developing a MODIS data simulation plan for review at the next Science Team Meeting, due Sept. 16. [Revised date.]

3.2 Closed Action Items

1. *Masuoka*: Provide Gordon's Water Leaving Radiance software to ESDIS project as a test case for the utility of massively parallel processing. [This software was delivered by Bob Evans in August. Barbara Putney, of EOSDIS Project, was notified that the code was delivered.]