

# MODIS TECHNICAL TEAM MEETING

**June 21, 1996**

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were David Herring, Paul Chan, Bill Barnes, Harry Montgomery, Bob Murphy, Al Fleig, Bruce Guenther, Wayne Esaias, Chris Justice, and Yoram Kaufman.

## **1.0 SCHEDULE OF EVENTS**

July 9 - 10	EOS Calibration Panel at GSFC
July 11 - 12	MODLAND-SDST Meeting at GSFC
July 15	Semi-Annual Reports due to Barbara Conboy
July 17 - 18	Atmosphere Discipline Group Meeting in Chincoteague, VA
Aug. 16	Revised ATBDs due to the EOS Project Science Office
Oct. 8	MODIS Calibration Working Group at GSFC
Oct. 9 - 11	MODIS Science Team Meeting at GSFC

## **2.0 MINUTES OF THE MEETING**

### **2.1 GSFC DAAC Reports**

Chan reported that beta software testing is going well. He stated that the GSFC DAAC received software modules from SDST and is testing all of them—21 modules have successfully completed testing and 14 are still in progress. Chan feels that there is now good cooperation between the GSFC DAAC and ECS.

Chan stated that the DAAC is documenting its findings from the tests and will issue a report when the tests are complete—probably by the end of July 1996. The report will rate the severity of all problems encountered to hopefully help with the delivery and testing of version 1 code. Chan said the DAAC is now working with ECS to prepare for and write an operations scenario for end-to-end processing for MODIS.

Salomonson asked if the GSFC DAAC is processing VIRS data. Chan responded affirmatively. Salomonson asked Herring to invite a representative from the VIRS Team to attend the next MODIS Science Team Meeting to present an overview of their instrument, explain their data processing chain, and discuss how they are gridding their data.

### **2.2 EOS PM Meeting Summary**

Murphy told the Team that he attended the first EOS PM Science Working Group (equivalent of the SWAMP) meeting recently. He said the AIRS Team is not enthusiastic about doing the spacecraft maneuvers that the MODIS Team sees as essential.

Murphy reported that he chaired a MODIS science discipline meeting in which the software delivery schedule was discussed. At that meeting, it was generally agreed that there is little reason to deliver beta code for the EOS PM MODIS instrument unless it is for a new data product. However, Murphy pointed out that he wants to ensure that the PM-1 ATBD reviews are conducted in harmony with the AM-1 ATBD reviews.

Murphy stated that the discipline leaders are concerned about the cutbacks in the testing schedule at SBRS. He is working to ensure that all essential tests are done.

### **2.3 MAST Reports**

Herring announced the results of the recent poll to determine the MODIS Team's preference for dates for the next Science Team Meeting. Based on those results, the Technical Team agreed that meeting should be rescheduled to Oct. 9 - 11, 1996, in the GSFC Building 8 Auditorium. Also, there will be a MODIS Calibration Working Group Meeting on Oct. 8. Team members should adjust their calendars accordingly. Herring asked for additional input for discussion topics and ideas for presentations to include on the agenda for that meeting.

Herring reported that MAST has been working with MCST to help render its action item database accessible to the MODIS Team via the Internet. Michael Heney, of SSAI, wrote a filter program to convert Microsoft Excel files to HTML (Hypertext Markup Language) files so that the MCST action item database is accessible via World Wide Web viewers (i.e., Netscape or Mosaic).

#### **2.3.1 MODARCH Update**

Herring announced that MAST received a trial copy of software from Excalibur Technologies, Inc.—called EFS WebFile Server—that allows anyone to view MODARCH's holdings via their World Wide Web viewers. The URL to access the public partition is <http://modarch.gsfc.nasa.gov/archive.html>. From there, users need only click the “login” button to access the MODARCH EOS Public Fileroom.

Any team members who wish to access the MODARCH restricted partition may do so at <http://modarch.gsfc.nasa.gov/login.html>. Upon accessing this page, users will need to know the proper “user” and “password” in order to proceed into the archive. This information has already been distributed to MODIS Team members; however, if you do not recall it you may call either Herring (301-286-9515) or Heney (301-286-4044) to get it.

Users of this new service should note that MODARCH documents are typically stored in two linked formats--ASCII text and TIFF. The TIFF images are exactly as they appeared when they were scanned. To view the files in TIFF format, users will need a third party TIFF viewer, such as GraphicConverter for the Mac,

or X-view for UNIX. An acceptable TIFF viewer for the PC platform has not been located yet (suggestions are sought).

The text files are the “dirty” OCR-(optical character recognition) corrected text, on which full-text searches are conducted. Clicking this link will display the contents of the document in ASCII format in your Web viewer (i.e., Netscape). If the page was scanned from hardcopy, then it will contain errors--users will want to deal mainly with the TIFF copies to ensure accuracy.

Occasionally, users will find information listed in the “Text” column. This information indicates that that document is also available in a third-party application, such as Adobe’s Portable Document Format (PDF) or Microsoft Word. Users will need to configure their Netscape or Mosaic “Helper Applications” properly to launch and view any files in one of these formats. Again, users should contact Herring or Heney if they have questions or problems.

Herring encouraged MODIS Team members to use and evaluate the MODARCH Weblink and report their opinions back to him.

#### **2.4 SDST Reports**

Fleig reported that he attended the recent ASTER Science Team Meeting. He feels that ASTER is farther along than any other EOS instrument team in planning for data quality assurance (QA).

Fleig said he is having ongoing discussions with the MISR Team on ground control points and knowledge of pointing accuracy. MISR’s nine cameras will not be registered before launch; the MISR Team plans to do registration after launch. According to Fleig, the MISR Team assumes that if they look at 40 ground control points in one month, then they will know the pointing accuracy of MISR at the end of the first month after launch. Fleig has some reservations about whether looking at 40 ground control points in one month will give the MISR Team the pointing knowledge it desires. He stated that he is working with Graham Bothwell, of MISR, and Hugh Keiffer, of ASTER, on identifying a common ground control point approach.

Fleig stated that he also discussed with the MISR Team the possibility of exchanging synthetic data. He noted that MISR needs their synthetic data by January 1997. Fleig stated that SDST is willing to share some technology with MISR, but cannot develop their subroutines for them.

Fleig reported that according to the latest estimate, spacecraft attitude knowledge uncertainty is less than was originally estimated. There will be less vibration, less shake, and, therefore, less uncertainty in spacecraft attitude. He feels that this improves the outlook for determining pointing accuracy in orbit.

## **2.5 MCST Reports**

Guenther reported that MCST is working with SBRS on ways to complete its required instrument tests. He said MCST is providing personnel to help address SBRS' software problems. Specifically, MCST is sending personnel to SBRS to write software command procedures in the spacecraft control computer language. MCST personnel will also help write the ground support system software. Additionally, MCST will review the coding of SBRS' existing software, as well as their documentation. Guenther said the goal is to develop one reliable set of code.

Guenther pointed out that due to its working with SBRS on developing its software, there will be some slips in its flight operations team's schedule. He said that MCST will probably ask to let its report to the Science Team on flight operations slip from this Fall to the May 1997 Science Team Meeting. Salomonson agreed that this is a reasonable request.

Guenther reminded the Team that the MCST Science Advisory Panel (SAP) will be held July 18 at GSFC in Building 22, room C233.

Guenther stated that there is some discrepancy between how MCST thinks MODIS pixels are ordered versus how certain users think pixels are ordered within a given band. He pointed out that there is some discussion in his latest newsletter on this topic.

Guenther reported that he received a call from Mike Rast, {title??}, last week, and that Rast is ready to begin planning for the cross calibration of the diffuser plates for both MODIS and MERIS instruments. Guenther stated that planning will begin next week, and that calibration for the MODIS diffuser will be done at the same time and place as that of MERIS.

## **2.6 MODIS Project Reports**

Barnes announced that the MODIS Engineering Model (EM) electronics will be hooked up to the Protoflight Model (PFM) by June 24, and that testing will begin next week. He said SBRS plans to run a large number of tests using the EM electronics, and only those tests with the PFM electronics that may be affected by the electronics themselves.

## **3.0 ACTION ITEMS**

### **3.1 New Action Items**

1. *Herring*: invite a representative from the VIRS Team to attend the next MODIS Science Team Meeting to present an overview of their instrument, explain their data processing chain, and discuss how they are gridding their data.

### **3.2 Action Items Carried Forward**

1. *Guenther*: Forward copies of the SBRS test schedule to the Science Team as soon as it is available.