

January 21, 2004

MODIS sensor Working Group (MsWG) Summary

Attendance: Bob Barnes, Stuart Biggar, Vincent Chiang, Roger Drake, Gene Eplee, Bob Evans, Gerhard Meister, Chris Moeller, Vince Salomonson, Junqiang Sun, Gary Toller, Aisheng Wu, Jack Xiong, Zhengming Wan, Joe Esposito

Scheduled Items

Item 1 Instrument Status

Terra SFE Reset (DB problems fixed)

JX) Direct Broadcast was recovered by recycling the SFE. MCST checked all patterns and found that all looked normal.

There are enough supersets (SS) to record the data on the SSR. Discussions on recycling to recover lost SSs are underway but a schedule for recycling has not been set.

Data dropouts (Terra and Aqua) from 1 to 30 seconds in length have been noticed when TDRS spare is the relay satellite. Disciplines will be notified of sample times and asked to evaluate the impact on data quality (impact on science).

Aqua: normal operation

JX) GDAAC was down for 6 hours on January 20. Aqua reprocessing on hold until at least January 21 due to not enough disk space

MCST has lowered the SD calibration rate to every two weeks as was done on Terra.

Item 2 Calibration and LUT Update Related Issues

Miami observed changes in m1 LUTs (verified).

JX) Changes near Aug. 28- Sept. 1 period due to degradation not updated after the SDD remained open. SD calibration (m_1) used one curve for SD degradation. However, since the SDD has remained opened, the rate of degradation has changed. The trend indicates that two curves (exponential functions) be used, one for each epoch (before/after SDD kept open). Test LUTs with the new degradation curves prepared for Miami.

Item 3 RVS from DSM

JX) DSM yields best results for the RVS. What is the impact on science product?

CM) results show an impact (for Terra) but must go back with Rick and re-evaluate the impact on science.

VS) The question has been posed "what is the improvement/impact on the product" that will justify doing a DSM for Aqua.

JX) Peter was asked about this at the VIIRS meeting. The impact to RVS is small near the end of scan.

BE) Terra has a MS_1/MS_2 issue (seen in the SST). For the Aqua MS issue, the cause may be due to the RVS offset and bias. Impact would lower the RMS of SST. From the East/West end of scan for MS_1 and MS_2 can get the trend of the error for Terra and

Aqua. Back of Nadir door data would be just as good as a DSM for the error trending.

- CM) Based on what I have seen so far on Aqua's data. We only probably gain small margin on DSM RVS compared to CNAD.
- VS) Bottom line [after some discussion]: There is no need for an Aqua DSM. Both Miami and Wisconsin concur.
Risk assessment on closing the Aqua Nadir door for an RVS measurement would be an issue.
- JX) May need to wait for an Aqua safe hold to occur in order for Nadir door to be closed. MCST has looked at Terra pre-launch RVS, witness sample data, and DSM. There is a difference between the witness results and on-orbit.
- RD) On page 5, B36 witness and DSM are not consistent with RVS in use in L1B now.
- JX) Yes, the DSM is close to NPL in shape-wise. Page 7 is the percentage difference for MS2. The number does not translate directly into radiometric (as CM asked).

Around the Table

Participant: JX – Used SRCA to look at changes due to SDD being opened. The results showed something “off” which has been attributed to SRCA running during spacecraft “day”. MCST has since commanded SRCA to start 5 minutes earlier in order to miss spacecraft “day” region of the orbit.

Participant: VS – Can Miami contribute to the upcoming Oceans review meeting?

BE) Miami will send a short package to review team

JX) Ocean color calibration review meeting set on 11-12 February. Background material (package) will be sent from MCST as a reference.

Participant: BB – MCST gave us Aqua moon data recently. We would now like the Terra moon data.

In the past MCST has stated assumption that SD doesn't degrade at 930nm. We also assumed no change at 930nm on the moon either. SeaWiFs has experience using the moon and we would like to try it.

JX) I will be away next week. Please contact JS for the data set.

Participant: GT – When the DB came back online, Liam Gumley saw a problem with the data that has been explained as due to the (old) software version he is using.

Participant: RD – MODIS data/images were at almost every other booth at the American Meteorological meeting. There is very wide use of MODIS data/images. I can dial-in for the Oceans review.

Participant: CM – We have processed global data set with de-stripping algorithm.

Participant: BE – Miami received Alice's LUT table for testing.

Next meeting, in two weeks, may be skipped. Watch your Email for MsWG meeting information.