

November 6, 2002

MODIS sensor Working Group (MsWG) Summary

Attendance: Bill Barnes, Bob Barnes, Stuart Biggar, Vincent Chiang, Roger Drake, Bob Evans, Bruce Guenther, Yolanda Harvey, Shaida Johnston, Chris Moeller, Vince Salomonson, Gary Toller, Jack Xiong, Eric Vermote, Zhengming Wan, Joe Esposito

Scheduled Items

Item 1 Instrument Status

BB) Both instruments are working well. They are still looking at the Aqua lost command problem, therefore commands sent to Aqua must be watched.

Item 2 Sensor Calibration/Characterization

JX) Aqua, B28 Detector 9 (product order), is noisy during days 2002295 through 2002300. The detector became stable (see plot of day 2002306-2002307). Will keep watch on this.

Aqua, B6 detector 14 (SBRS order) has become noisy.

Aqua to Terra comparison for lunar data after East/West effect correction yields a 2% difference between the instruments. This is consistent with Arizona RRV results.

VS) What is the time separation between Terra and Aqua lunar data collections?

JX) Terra views opposite limb as Aqua yielding roughly one week between data collections.

BG) The January Terra to January Aqua measurements should, for example, differ from January Terra to July Aqua.

JX) The moon algorithm corrects for phase and libration. This greatly reduces any differences caused by phase or libration.

JX) We wish to meet with Miami to discuss updating m1 LUTs for Terra and Aqua.

Aqua will continue to be piecewise updated based on actual SD calibration results.

Item 3 Aqua SWIR thermal Leak Analysis

JX) RSB SWIR OOB correction using sending Bands 23-25 and 28 basically yields no difference between sender. Will therefore use the same approach for Aqua and for Terra (B28 for SWIR correction sender band). Some day time images will be reviewed, especially for B5.

MCST wants to use single detector for Xtalk correction to repair striping in Terra L1B study for MWIR sender band.

Around the Table

Participant: Jack Xiong – MCST would like to do a Terra yaw maneuver. Can get SD degradation as a function of solar azimuth angle. Will submit a report requesting the yaw maneuver.

Participant: Bob Evans – Miami has repaired an error in the polarization correction we are using. This repair has greatly improved the Ocean Band products nLw and SST. We're preparing to validate nLw and SST for Terra and Aqua.

Participant: Chris Moeller – The MWIR band influence on B5 is stronger than on B26. It may possibly be better to use B23 or B24 rather than B28 for B5 OOB correction.

- JX) MCST needs to look at the effect upon EV images. If B5 correction is not clearly better using another band then MCST will stick to using B28. (*MCST Action: investigate effect of other MWIR for B5 OOB correction on EV image striping.*)
- CM) Wisconsin is also going to the field (San Antonio) with the ER2 instrument for three weeks around 11/20/2002. The measurements will be mostly under Aqua. Is scheduled Ecal an extended calibration which can affect the correlation results?
- JX) Ecal is short, roughly 5 minutes.
- BG) Since you will be flying over Western USA, MCST can schedule Ecal to occur over southern hemisphere.

Participant: Stuart Biggar – RRV calibration on 10/22/2002 near NADIR. Weather was fairly clear.

Participant: Zhengming Wan – Hoping for clear day next week during Aqua/Terra comparison campaign in Nevada.

Participant: Roger Drake – SBRS is not happy about the noise increase in Aqua B28. This was also seen pre-flight in PFM. No anomalies in Aqua pre-flight results. SBRS will dust off and analyze bias sweep data from beginning of the Aqua flight to investigate this. Can this be due to a lowering of response rather than an increase of noise?

- JX) The DN for SV and BB maintain the same level therefore it is an increase of noise.
- RD) SBRS will keep an eye on this. Nothing in the prior data indicates a problem.
- RD) MCST and SBRS had the same results for the polarization analysis. SBRS would like to understand why Miami had problems.

Next Meeting November 27, 2002 (day before Thanksgiving)