Atmospheric Correction Discussion Session
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1. Aerosol corrections

Notes:
Vicarious calibrations tuned to particular set of models selected at MOBY site which may cause problems when other models are selected if the relative spectral characteristics aren't correct.

Match up analysis show systematic underestimation of AOT at blue wavelengths. Currently, aerosol community is not addressing aerosol model requirements for ocean color.

Spectral matching schemes in development look promising, but too compute intensive for operational use at this time.

Recommendations:

Review aerosol literature for updated aerosol models. Consider requirements (measurements, theoretical analyses, etc.) for deriving a set of aerosol models for ocean color applications.

IOCCG established atmos. correction working group to consider intercomparisons. We suggest they consider measurements/experiment design required to verify current models being used.

Recommended to continue participating in large programs like INDOEX & ACE-Asia, but need to better formulate how to take advantage of overall data collection including measurements by non-SIMBIOS investigators.

One issue in the aerosol corrections is the vertical distribution which can have substantial effects on the correction. A micropulse lidar network is in its infancy, but won't provide a large data set for quite some time. It was thought that MISR may be providing a vertical distribution data product and this possibility should be explored.

2. Turbid water corrections

Notes:
Rick Stumpf has continued to test various schemes as a continuation of the algorithm intercomparison conducted by the SeaWiFS Project in preparation for reprocessing #3.

Plymouth Marine Lab has published a correction scheme that was not included in the SeaWiFS Project intercomparison.

The POLDER and MERIS teams have other approaches as well, both of which include BRDF corrections to the Lw's (more important in clear water).

Recommendations:
Need to continue algorithm intercomparisons. Because sensors have different bands, implementation of some algorithms may not be possible for all sensors. For SeaWiFS, Stumpf group could serve as a front end for initial regional testing and SeaWiFS Project could follow-up with global evaluations.

Issue of diagnostic data sets arose. Much discussion on purpose and scope of the activity. For algorithm evaluations, time series sites would be best (Venice platform, MOBY, Bermuda, CalCOFI, etc.).

3. Masks and Flags

Notes:
Aside from coccolithophore flag, no real concerns were expressed.
Absorbing aerosol and cloud flags/masks could be better, but no real concerns were expressed.

Recommendations:
For coccolithophore detection, current algorithms seem to be missing a lot. Improved detection needed for carbon studies. Need to organize an in situ coccolithophore reflectance data set.