ATBD Review Status

	Expected			Received		
	ATBD	Val. Summ.	Val. Plan	ATBD	Val. Summ.	Val. Plan
ASTER	8	1	1	8	1	0
CERES	10	1	1	10	1	0
LIS	1	1	1	1	1	0
MISR	11	1	1	11	0	1
MODIS						
Atm.	6	1	1	6	1	1
Land	9	1	1	0	1	0
Oceans	11	1	1	7	1	0
Cal.	2	1	1	2	1	0
MOPITT	2	1	1	2	1	0
SeaWinds	1	0	0	0	0	0
Total	61	9	9	47	8	2

ATBD Reviews

November 19-21: MODIS Atmospheres, MODIS Oceans, MISR (all except surface retrieval), CERES, SeaWinds

Bill Smith, Chair
Terry Nakajima
Peter Cornillon
Carol Johnson
Harshvardhan
Jim Purdom
David Starr
Frank Wentz
Jim Yoder

December 10-11: MODIS Land, MISR Surface Retrieval, ASTER, LIS, MOPITT

Berrien Moore, Chair
Sam Goward
Jim Butler
Jim Collatz
Tim Suttles
Phil Krider
Jack Margolis
Dave Schimel

Land Workshop Report

Summary

- **ATBDs show considerable maturity**
- **Most are ready for implementation, except for some discrepancies between assumptions about input data and what will actually be produced by instruments or by lower level processes**

Significant Issues

- **Land surface resistance**
  - **Best estimated from PM-1 data; insufficient budget and time to develop as an AM-1 at-launch product**
  - **Steve Running to dedicate full-time Ph.D. student for 2 years**
  - **Should be available for PM-1 launch**
- **Need for new land PAR product**
  - **Essential for NPP**

Land Workshop Report: Recommendations

- **Enhance synergy between ASTER, MODIS, and MISR; formalize, encourage, and provide support for inter-instrument data product development and intercomparison**
- **Coordinate vicarious calibration and validation sites selection and characterization**
  - **Essential for each instrument team to focus on a limited number of sites and test all algorithms on such sites, rather than testing one algorithm on one site and another one at a different site**
  - **Highly recommended that the EOS team focus on the definition of a *small* number of sites**
- **Consolidate atmospheric scattering (correction) models**

Land Workshop Report: Recommendations

- **Consolidate Digital Elevation Model (DEM) requirements consistently across products and instruments**
  - **There may be various requirements for DEMs depending on resolution and use; the highest (most stringent) resolution needed by EOS globally should be identified and the required product should be developed through a focused effort**
- **Re-examine the current commitment to Look-up Table (LUT) approaches to generate data products**
  - **Recommended that the LUT approach be looked at from a scientific point-of-view, especially the accuracy versus the size of the table and the interpolation scheme**
- **Investigate dependencies, loop, and error analysis**
  - **The error analyses given in various documents assume that the parameters/products from other algorithms will be available at a certain accuracy level; the impact on subsequent analyses needs to be explicitly defined as a diagram in the ATBD**

Land Workshop Report: Recommendations

- **Examine data contamination screening algorithms for the optical sensors, especially cloud screening**
  - **Cloud screening product (MOD35) in need of urgent attention**
  - **Recommend a workshop on the related multi-temporal problems of cloud masks, land cover classification, and changes in cover type as well as related problems, e.g., cloud/ snow discrimination**
- **Re-evaluate FPAR/LAI product production strategy**
  - **MODIS and MISR should very seriously consider funding another approach now**
- **Facilitate connection of ATBD teams to different people in the community**

Land Workshop Report: Recommendations

- **Increase algorithm flexibility and responsiveness to the scientific community; set in place a strategy for replacing initial algorithms by improved versions**
- **Verify linkages between data products (Interface Control Documents)**
- **Set up a "catalog" of data products and reports for distribution in the scientific community**

Land Workshop Report: What Next?

- **All MODIS Land ATBDs will be revised according to new input since 1994**
- **Each ATBD will contain an appendix acknowledging the Land Workshop Report recommendations and the ATBD developer(s) responses; *due to PSO November 1***
- **The following ATBDs will be subject to panel reviews in addition to the requirements listed above:**

ATBD Number	*ATBD Title*	*Lead Author(s)*
ATBD-MOD-11	Land Surface Temperature	Wan
ATBD-MOD-13	Vegetation Indices	Huete, Justice
ATBD-MOD-12	Land Cover	Strahler, Townshend
ATBD-MOD-15	LAI and FPAR	Running, Myneni
ATBD-MOD-16	PSN and ANPP	Running
ATBD-MOD-08	Atmospheric Correction Over Land	Vermote

EOS Project Science Office

- **Draft NRA on correlative measurement program for EOS-wide validation completed by Tim Suttles**
- **Four of ten Science Plan chapters received**
  - **Chapter 4: Radiation, Clouds, Water Vapor, and Precipitation (Hartmann)**
  - **Chapter 5: Oceanic Circulation, Productivity, and Exchange with the Atmosphere (Rothrock)**
  - **Chapter 9: Ozone and Stratospheric Chemistry (Schoeberl)**
  - **Chapter 10: Volcanoes and Climate Effects of Aerosols (Hartmann & Mouginis-Mark)**
- **Data Products Handbook**
  - **Describes data products and data flow diagrams for all of the EOS AM-1 and TRMM data products**
  - **In final review; only MODIS sections outstanding**