MODIS Science Team

Anticipated Accomplishments

SCI

1994

- Detailed s/w & h/w architecture developed for MODIS TLCF & beta version of processing software.
- BOREAS Boreal Forest field campaign participation.
- SCAR-C conducted in WA, OR, CA.
- ATBDs submitted and reviewed.
- 10-year MODIS support service contract awarded.
- MODIS Algorithm Team for calibration formed.
- Beta-1 Heritage Code delivered.
- Sensor spurious response characterized.
- Spectral bands characterized.
- Bowtie overlap effects identified and exploitation methodology developed.
- Radiometric math model developed and utilized.
- Marine Optical Buoy (MOBY) deployed to calibrate oceans algoritms
- Ocean algorithm development cruises (4) conducted.

SCF

- ATM link between EDC & GSFC for hi-volume. data transfer.
- Copy of SBRC test & analysis computer procured to analyze engineering model data sets.
- Team member science computing facilities initiated.

MODIS Science Team

Anticipated Accomplishments

SCI

1995

- SCAR/Brazil experiment conducted.
- Beta source algorithm delivery to EOS Project.
- MODIS simulated data set version 0 developed.
- Prototype product code tested and integrated.
- Global 1 km. AVHRR prototypes developed & utilized.
- MAS 50-channel prototype data sets acquired.
- Engineering model testing initiated.
- Spurious instrument scattering effects quantified; consensus for corrective action developed.
- Ocean visible algorithms tested w/SeaWiFS data.
- Initial testing of approaches for resolving on-board, prelaunch, and vicarious calibrations w/SeaWiFS.
- Algorithm development cruises & a/c campaigns conducted.
- JGOFS Arabian Sea Expt. & IRONEX conducted.

SCF

- Operational TLCF and SCF's established.
- Computer and peripheral h/w sized to simulation/algorithm developments.
- Next generation mini-supercomputer acquired to support global data processing s/w development.
- TLCF/EDC DAAC Working Group established.

MODIS Science Team

Anticipated Accomplishments

SCI

SCF

1996

- Global land test site program in place.
- Global sun photometer network established & operational.
- Global DEM prototype integrated.
- Science algorithm peer review & journal publication conducted.
- Version 1 algorithms delivered to EOS Project.
- SeaWiFS 1 km. prototype data set developed.
- Calibration & characterization of engineering model completed.
- Protoflight calibration & characterization plan initiated.
- Spurious correction algorithm established.
- Calibration Peer Review conducted.

- Version 1 algorithm test string developed.
- Version 0 simulated data sets for testing MODIS data production s/w & computing distributed.
- Joint MODIS science data s/w & PLDC prototyping of gridded global products produced & distributed.
- Prototype non-automated quality control s/w development begins at TLCF & SCFs.

MODIS Science Team

Anticipated Accomplishments

1997

SCI

- Version 2 s/w & associated journal pubs delivered.
- "Lambada" Brazilian algorithm development expt. conducted.
- Version 1 simulated data sets due.
- Protoflight model characterization & calibration completed.
- Global data simulation final version produced.

SCF

- PGS product-ready test & development system operationally established.
- Terabyte near-line storage system established to support both test & development, and experimental product generation & distrubution.
- Global simulated data sets (version 1) generated & distributed.
- Quality control prototypes refined and extended in conjunction with the DAACs.

MODIS Science Team

Anticipated Accomplishments

1998

SCI

- EOS launched.
- COLOR & Landsat 7 launched.
- Algorithm refinement & accuracy testing begun.
- On-orbit performance of instrument evaluated.
- Protoflight calibration coefficients updated.
- Ocean algorithms calibrated with initialization cruise data sets.

SCF

- Data product generation (ECS).
- Off-line calibration & geolocation processing systems begin evaluating changes in calibration coefficients and improving geolocation through removal of static errors in pointing knowledge.
- Product quality control prototype produced.
- Calibration/characterization computer network updated.
- Quality control of products begins at launch.
- SCFs upgraded for launch readiness.

MODIS Science Team

Anticipated Accomplishments

SCI

1999

- On-orbit MODIS geolocation & calibration trending is refined.
- Collection of ancillary data for product evaluation.
- Algorithms updated & refined.
- PM-1 beta algorithm delivery expected.
- Preliminary product evaluation accomplished.
- MODGlob99 algorithm calibration field experiment conducted.
- Major scientific discoveries revealed in oceans, land, and atmosphere observations.

SCF

- Data storage management system implemented.
- Data reprocessing and quality control initiated.
- DAAC data product distribution begun.
- Experimental products produced.

MODIS Science Team

Anticipated Accomplishments

SCI

2000

- PM-1 version 1 operational algorithm established.
- Product evaluation continues.
- Algorithm revision & refinement continues.
- Verification of AM-PM Level 3 merging procedures accomplished.
- More major science discoveries made -- interannual differences in vegetation & ocean productivity are quantified

SCF

- High-speed network between SCF's and DAAC's established.
- Data reprocessing and quality control continued.
- Experimental data products produced & distributed by the SCFs & TLCF.