



MODIS Science Team Meeting: Parting Thoughts

Paula Bontempi

MODIS Program Scientist
National Aeronautics and Space Administration HQ
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Missions to Measurements: Thoughts

- Continuing/evolving measurement streams, there will be one science team, competed periodically, that provides scientific guidance to present and future missions and for the utilization of past data sets
- EOS Re compete: Three categories
 - 3.1 - EOS Instrument-specific Algorithm Refinement and Cal/Val Activities
 - 3.2 - Algorithm Refinement and Cal/Val for Earth System Data Records
 - Potential incorporation of NPP responsibilities
 - 3.3 – Science Data Analysis – opportunity for new science and data products
- One data system to ensure a “seamless” time series
- Scientific guidance and priorities must represent broad user community
- Blending of instrument science teams (MODIS, ASTER, CERES) to discipline (land/ocean/atm) or measurement teams (cryo under land?)
- Terra and Aqua Science Team Meetings – interdisciplinary science team meeting that focuses on science questions that require properties of the Earth System from multiple sensors – 6 month time frame, perhaps November?
- Evolution of efforts to support current missions, prepare for NPP/NPOESS era (and any associated NASA responsibilities – research quality data?) as well as any future DS missions being planned or under study





Future Research....ESDRs: Thoughts

- Utilize MODIS (and EOS) data products to create new scientific understanding of planet Earth and how it is changing – and new applications of this knowledge for decision support
- Systematic observations from current NASA sensors (MODIS) – what products are key for climate and Earth System research
 - e.g., TOA radiances or aerosol optical depth?
 - Need for white papers (e.g. land community)
 - Gaps in systematic obs vs. new obs needed (DS Role/timeline?)
- Future Sensors – VIIRS (NPP – 2010; NPOESS C1 - 2013)
 - agency that has responsibility for climate? What products? Requirements/Funds for data (re)processing, calibration, validation? New science challenges?





New EOS Data Product Review Needed

We need:

- A plan for review of algorithms for the new and alternative EOS algorithms
 - **Current algorithms/products** – Algorithm refinement PIs to provide
 - compelling justification for the importance/utility of the algorithm and (as needed) improvements;
 - plan for transition to core production (recognizing infusion of new knowledge)
 - data product documentation broadly reviewed by user communities (web-based posting for review/comments?)
 - regular data product/algorithm reviews – maintain, refine, review as needed
 - **New algorithms/data products** – draft new proposal, documentation and requirements, follow with review and endorsement by user communities
 - Assess quality and importance of data product suites (and their components)
 - Prioritize EOS data products relative to each other and relative to other needs of the community they serve
 - Recommend changes, improvements, level of service by data systems and archives
 - Must involve community (peer review by mail, panel, telecon)
 - Must take into account NASA (or other) resources / program components required to support the products; involve data system and archive management, NASA HQ Focus Area Leads (program/project managers





Mission Extension/Senior Review Process

- Effort coordinated by Steve Volz at NASA HQ
- Process for extending missions beyond the prime life
- 2-year cycle
- Up for renewal in April 2009:
 - Terra (CERES, MOPITT, MISR, ASTER, MODIS)
 - Aqua (AIRS, MODIS, AMSR-E, CERES)





Future Research....Accomplishments: Thoughts

- Tremendous disciplinary and interdisciplinary science progress
 - Intrasensor (MODIS) interdisciplinary and intersensor challenge
- Public outreach
 - Newsworthy publications
 - NASA Science Update – interdisciplinary with a flavor of Applied? Perhaps high latitude or IPY?
 - Inspiration for the next generation of explorers and researchers
- DAACs – reaching the research communities, operational managers, and public
- Connection to international programs and partners – missions and international programs (e.g., GEOSS, CEOS)
- Coordination telecons by discipline? Suggested at MCST session.

