



# MODIS Science Team Meeting: Parting Thoughts

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2 November 2006





# Mission Extension/Senior Review Process

- Effort lead by Steve Volz at NASA HQ
- Mimics former Space Science process for extending missions beyond the prime life
- 2-year cycle
- Up for renewal:
  - Terra (CERES, MOPITT, MISR, ASTER, MODIS)
  - Aqua (AIRS, MODIS, AMSR-E, CERES)
- Proposals due in spring, panel in late spring
- Future data and use for “team” connected with mission extensions (historical analyses)
- Team leader and MCST functions



# Budget



- FY06: savings from incremental funding (FY07 installment) – programmed
- FY07 – CR through February 2007 (Budget in March/April)
- Contracts: Shannell Cardwell
- FY07 – exercising 4<sup>th</sup> year option on Team Lead budget (reductions are possible)
  - Planned ramp down in MCST in proposal fourth year





# NASA Earth Science Future Planning

## The Continuity and Evolution of Earth System Science

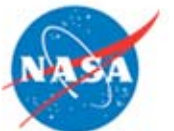
- NASA is in the process of advance planning at Directorate (Congressional science plan), Earth Science Division, Focus Area levels (CC&E; Atm. Composition)
- Climate Change Science Program
- Development of and Linkage to Global Earth Observing System of Systems (GEOSS)
- U.S. Commission on Ocean Policy/Ocean Action Plan
- R2O
- NRC NASA/NOAA/USGS Decadal Survey – recommendations in early 2007
  - 1. Recommend a prioritized list of flight missions and supporting activities to support national needs for research and monitoring of the dynamic Earth system during the next decade.
  - 2. Identify important directions that should influence planning for the decade beyond.



# EOS Re compete



- 322 proposals received
- Approx. \$25M/yr available
  - Unclear whether further reductions will take place
- Panels in January/February 2007
  - Renewal dates – May-July
- Three categories
  - 3.1 - EOS Instrument-specific Algorithm Refinement and Cal/Val Activities - 60
  - 3.2 - Algorithm Refinement and Cal/Val for Earth System Data Records - 93
  - 3.3 - Integrated Science Data Analysis -211





# Measurement Teams

**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**

- Support and focus on Earth System Data Records
- One data system to ensure a “seamless” time series
- Scientific guidance and priorities must represent broad user community
- Terra and Aqua Science Team Meetings - interdisciplinary
- Incorporation of NPP VIIRS





# Missions to Measurements: Thoughts

- Recomplete encompasses MODIS and NPP (VIIRS)
- Two 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
- Blending of instrument science teams (MODIS, ASTER, CERES) to discipline (land/ocean/atm) or measurement teams (cryo under land?)
- 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 missions being planned or under study
- Not an NPP Science Team meeting (March 07), but perhaps April/May/June kick off discipline meetings?





## 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 variability and change research
  - E.g., TOA radiances or aerosol optical depth?
  - Need for white papers (e.g. land community)
- Future Sensors – VIIRS (NPP – Sept. 2009; NPOESS C1 - 2013) – agency that has responsibility for climate? What products? Funds for data processing, calibration, validation?



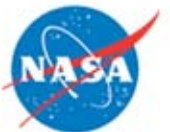




# New EOS Data Product Review Needed

## We need:

- A plan for review of ATBDs for the new and alternative EOS algorithms – should they be that mature
  - Written in to future contracts as a potential deliverable
  - **Current algorithms/products** – ATBDs should be updated, and data products broadly reviewed by user communities
  - **New algorithms/data products** – draft ATBDs
  - 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
  - Community 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)





## Future Research....Accomplishments: 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
- Tremendous disciplinary and interdisciplinary science progress
  - Intrasensor (MODIS) interdisciplinary and intersensor challenge
- Public outreach
  - Newsworthy publications
  - MODIS NASA Science Update – interdisciplinary with a twist of Applied? Perhaps high latitude or IPY?
  - Inspiration for the next generation of explorers and researchers

