



MODIS Science Team Meeting

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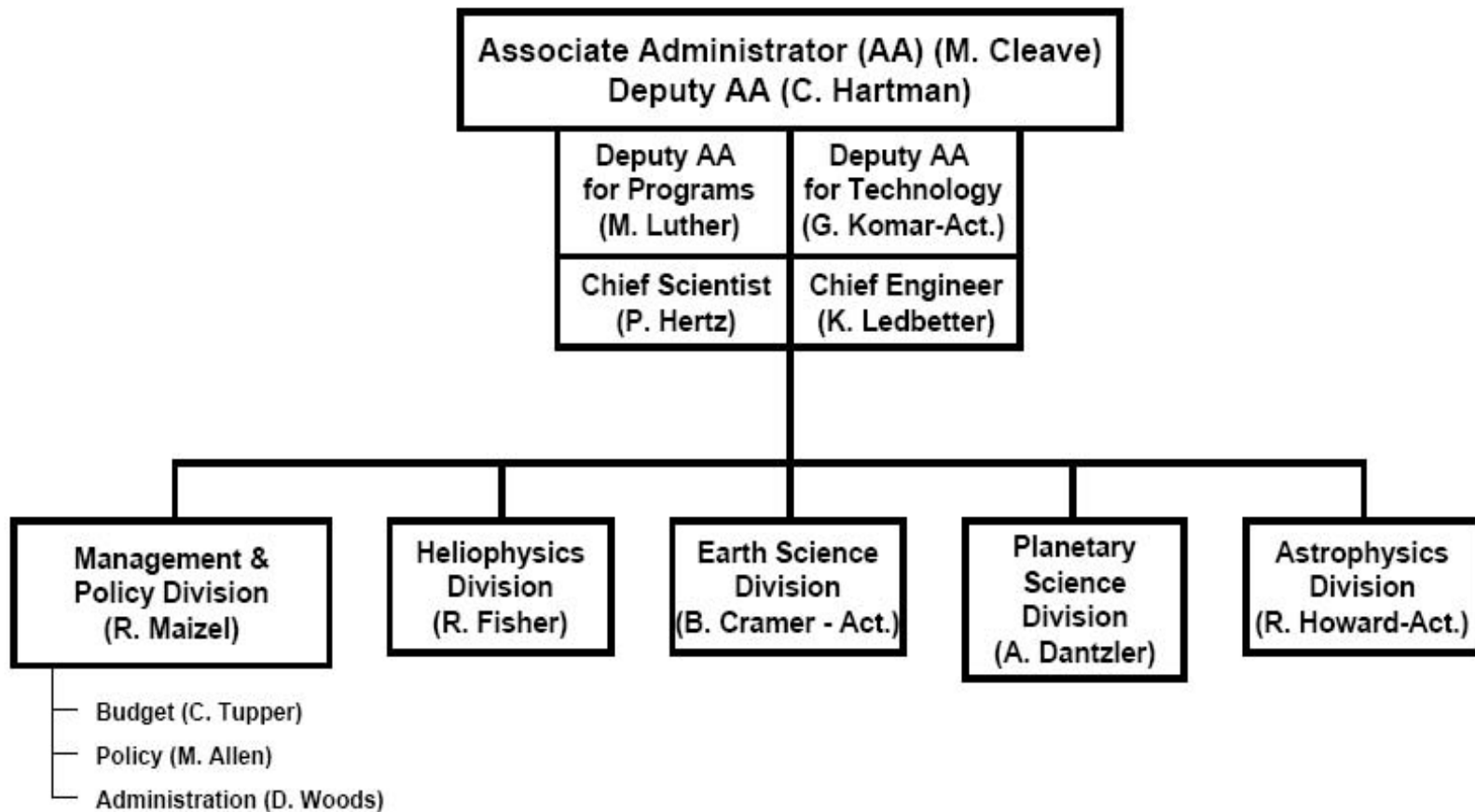
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Proposed SMD Organization





What's New/FY07 Budget

- FY07 – CR through February 2007 (March/April ?)
- Mission Science Team Reductions – no information at this point
- In FY06:
 - Terra, Aqua Science Data Analysis – 5% (0%)
 - Terra, Aqua Algorithm Refinement – 7.5% (0%)
 - MODIS Team Lead – 12.5% (3%)
- Solution: savings from incremental funding (FY07 installment) – programmed
- Contracts: Theresa Mautino
- FY07 – exercising 4th year option on Team Lead budget (reductions are possible)



EOS Re compete



- 322 proposals received
- March Amendment reduced funding amount from \$30M/yr to \$25M/yr
 - 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





Mission Extension/Senior Review Process

- Effort lead by Chuck Holmes 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)
- Steve Volz (NASA HQ) will be talking this morning





Future Research....

Prior MODIS Team Challenge - reap the full scientific benefits of MODIS, Terra, Aqua, & EOS

- Make/keep existing data products the best they can be (3.1 on EOS Rec.) plus ESDRs (3.2 on EOS Rec.)
- Develop new data products to enable important, new scientific and applied uses
 - Land ATBD for Vegetation Moisture Content
- 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





Outcome of the Challenge – Future Research

The Continuity and Evolution of Earth System Science

- How does MODIS/EOS fit into a changing world?
- NASA Mission:
- **Strategic Goal 3 (6 total):** Develop a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration.
 - Sub-goal 3A (7 total): Use Earth-orbiting satellites to study global change and enable better predictions of climate, weather, and natural hazards

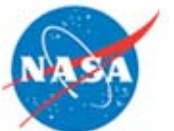




Outcome of the Challenge – Future Research

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)
- Earth Science is changing from mission science teams to measurement-oriented science teams (ESDRs)
 - Oceans up and running, land in development, atmosphere status
- Modeling, Analysis, Prediction Program (Don Anderson)
- Development of and Linkage to Global Earth Observing System of Systems (GEOSS) – land, ocean, atm
- U.S. Commission on Ocean Policy/National Academy of Sciences – R2O
- NRC NASA/NOAA/USGS Decadal Survey – recommendations in early 2007
- Merged products (NPP); new products (land)





Issues for MODIS Team

- More interdisciplinary algorithm development approaches, Terra/Aqua intersensor science; share expertise
- Certain algorithm developers and validation investigators should address important deficiencies in key data products (e.g., cloud mask, atmospheric correction)
- Algorithm developers need to represent broader community needs by working with them
- Algorithm refinement PIs need to provide compelling justification for the importance/utility of the algorithm improvements and/or new data products
- ATBD Development and Reviews
- Future ramp down of MCST
- MODIS Land, Ocean, & Atmosphere Groups work interactions across the team





New EOS Data Review Needed

We need:

- A plan for review of ATBDs for the new and alternative EOS algorithms – after 2-3 years
 - 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
 - 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)
 - [Suggestions Welcome](#)





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
 - Terrestrial community white papers
- One data system to ensure a “seamless” time series
- Scientific guidance and priorities must represent broad user community
- Terra and Aqua Science Team Meetings?
- NPP and NPOESS VIIRS





MODIS Team Meeting – Oct/Nov 2006

- Update on “new” team (PI) progress, integration
 - Algorithm Refinement and Validation
 - Science Data Analysis Results
- Issues encountered
 - **Oceans** – data processing, vicarious calibration, data merging, data product workshops, validation protocols
 - **Land** – measurement team spin-up (ESDR WP), C5 update, Landsat gap, ATBD review
 - **Atmosphere** – calibration, cloud radiative properties, future planning, aerosols, DB, interdisc. science, A-train comparisons
 - **MCST** – land/ocean/atm, cal/val, striping, earthshine, cross-sensor calibration

