



MODIS Science Team Meeting

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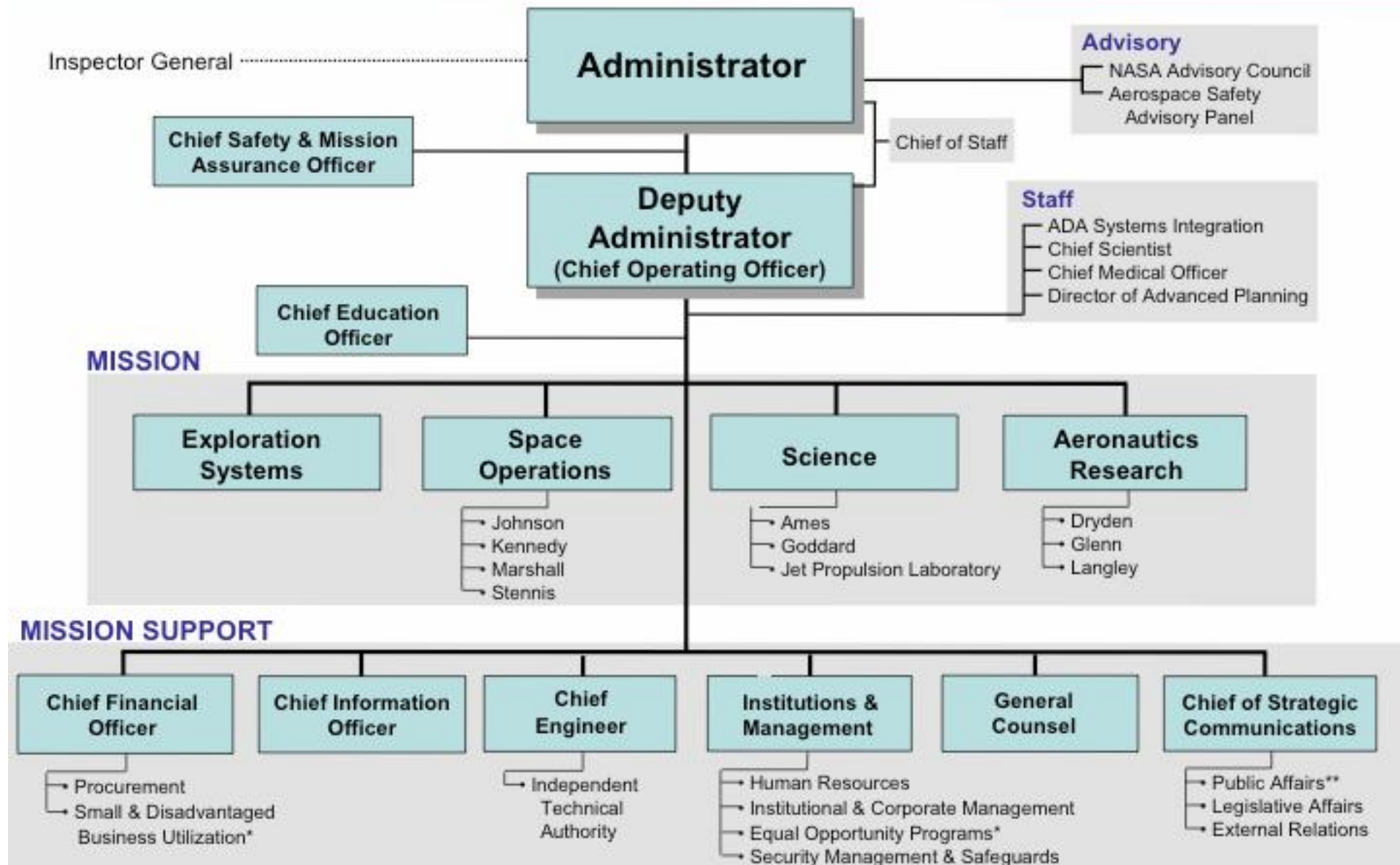
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National Aeronautics and Space Administration

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Transformed Structure



* In accordance with law, the OEDP and SDBU maintain reporting relationships to the Deputy and the Administrator.

** Including a new emphasis on internal communications



Science Mission Directorate

Councils

- Leadership Council
- Science Management Council
- Program Management Council
- Operations Council

Associate Administrator (AA)

A. Diaz

Deputy AA

G. Asrar

**Deputy AA
For Management**

A. McNally

**Deputy AA
For Programs**

O. Figueroa

Education Officer

AAA/Strategy, Policy & Int'l
 AAA/Science
 AAA/Technology
 AAA/Exploration Mission Int.
 Sr. Policy Advisor

Mission Support

**NASA
Management Office**

R. Parker

**Administrative
Processes**

C. Sorrels

Mission

**Earth-Sun
System**

M. Cleave (act.)

**Solar
System**

A. Dantzler (act.)

Universe

A. Kinney

Mission Enabling

**Business
Management**

R. Maizel

NASA Centers

JPL

C. Elachi

GSFC

E. Weiler

ARC

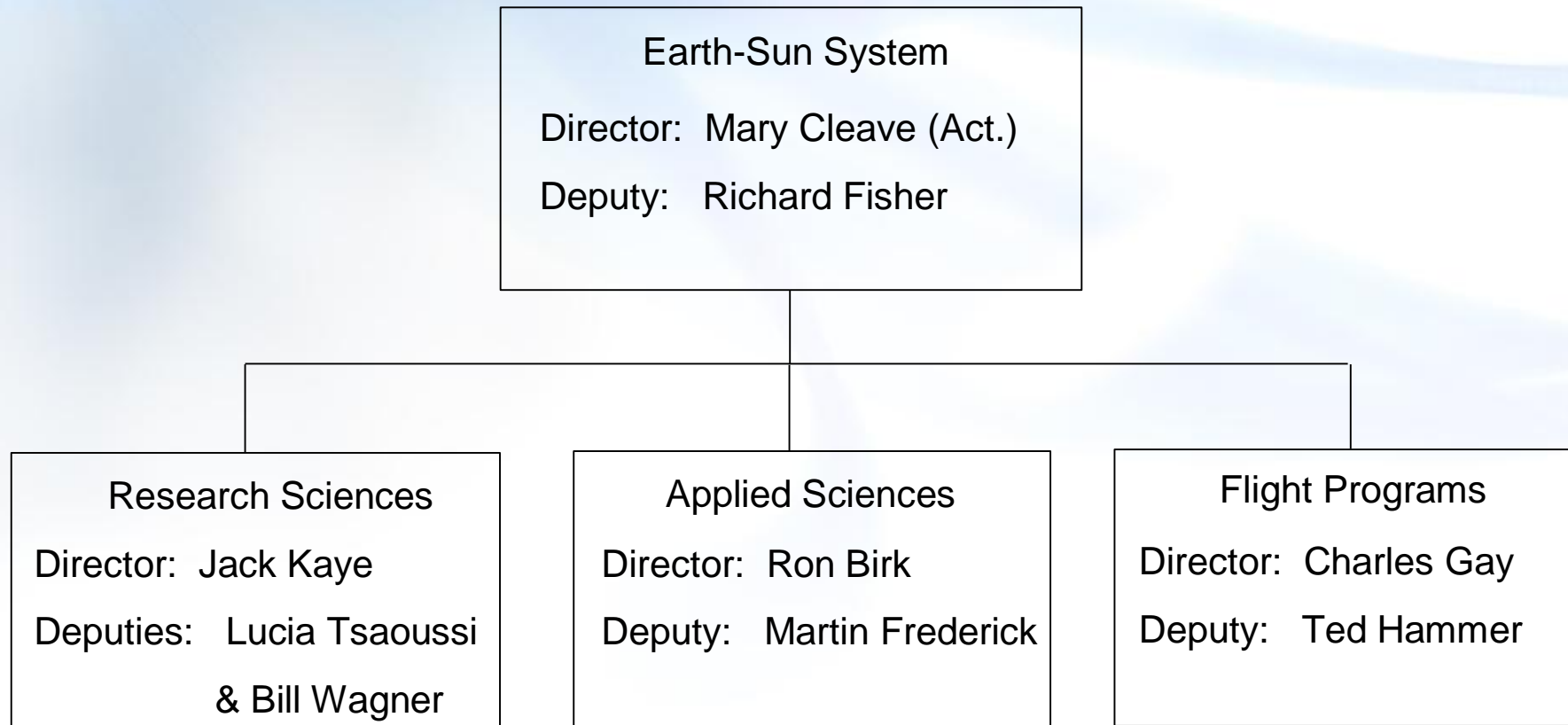
S. Hubbard

**Mission & Systems
Management**

M. Luther

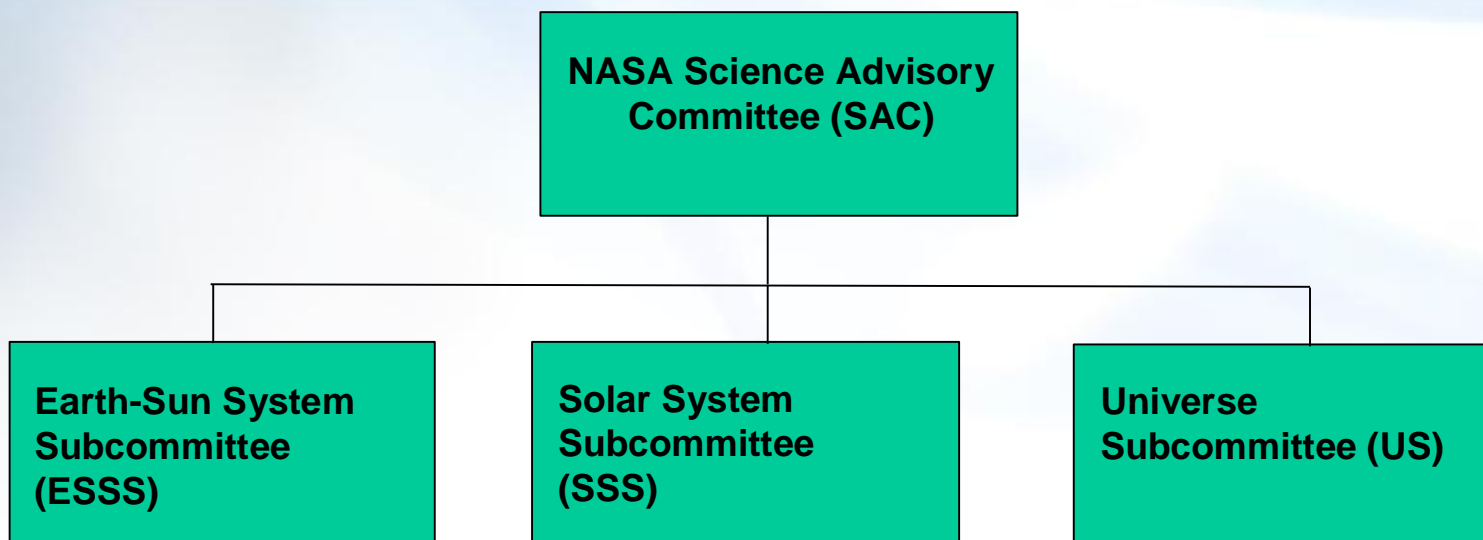


Earth-Sun System Division





Proposed New Advisory Committee Structure



SMD and NSAC may wish to establish ad hoc task groups in cross-cutting areas; these will report to NASA via the NSAC





What's New/FY05 Budget

- Earmarks, Exploration Vision
- Mission Science Team Reductions
- Originally:
 - Terra, Aqua Science Data Analysis – 5%
 - Terra, Aqua Algorithm Refinement – 7.5%
 - MODIS Team Lead – 12.5%
- Solution: savings from incremental funding (FY07 installment, ROSES impact)
- FY06 requested vs. enacted budget





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
- Proposal submitted by 16 March 2005
- Up for review:
 - Terra (CERES, MOPITT, MISR, ASTER, MODIS)
- Review by Panel of Peers – outside NASA
- 25-26 April 2005
- Mission Operations and Calibration and Validation





MODIS Team Meeting in July 2004: The Challenge

Reap the full scientific benefits of MODIS, Terra, Aqua, & EOS

- Make/keep existing data products the best they can be
- Develop new data products to enable important, new scientific and applied uses
- Utilize MODIS (and Terra, 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

The Continuity and Evolution of Earth System Science

- How does MODIS fit into a changing world?
- NASA Mission: understand and protect our home planet
- NASA is in the process of transforming itself to implement the President's Exploration Vision
- Strategic Roadmapping Effort taking place
 - SRM-9 – Earth Science
- Earth Science is changing from mission science teams to measurement-oriented science teams (CDRs)
 - Oceans up and running, land in development, atmosphere status
- Modeling and Analysis 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





Issues for MODIS Team

- More interdisciplinary algorithm development approaches; 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
- 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 Climate Data Records
- One data system to ensure a “seamless” time series
- Scientific guidance and priorities must represent broad user community
- CDR Session tomorrow – L. Tsaoussi (HQ) – Earth Science Data Records





From Mission to Measurement Teams

- Ocean Team has already begun this change
- “Land” (Vegetation?) is poised to begin
 - One or several measurements, what ones
 - Spatial resolutions: moderate (1 km) and high (30 m)
 - Surface hydrological and geological measurements?
- Atmosphere Team status?





MODIS Team Meeting – March 2005

- Update on “new” team (PI) progress, integration
 - Algorithm Refinement and Validation
 - Science Data Analysis Results
- Issues encountered
 - **Oceans** – data processing, cal/val, annual reviews, meas. team (PI) progress, future planning
 - **Land** – measurement team spin-up (CDRs, ESDRs), instrument update, prod. distribution/archive, future planning
 - **Atmosphere** – calibration, cloud radiative properties, future planning, aerosols, DB, interdisc. science, atm. correction
 - **MCST** – Session Tuesday evening – land/ocean/atm, cal/val, striping, earthshine, cross-sensor calibration

