

# Discovery, New Frontiers, & Lunar Quest Program



5-43702



**Science Mission Directorate**  
 Associate Administrator      Ed Weiler  
 Deputy AA                              Chuck Gay

**Planetary Science Division**  
 Director                              Jim Green  
 Deputy Director                      Jim Adams

**Discovery, New Frontiers & Lunar Quest Program Office**

Program Manager                      Dennon Clardy  
 Deputy D/NF                              Allen BacsKay  
 Deputy LQ                                  John McDougal



- Aspera
- Dawn
- EPOXI
- GRAIL
- MESSENGER
- Stardust-NExT
- M<sup>3</sup>
- Strofiio
- Discovery AO 2010**



- Juno
- New Horizons
- NF AO3 New Mission



- LADEE
- LRO

# Program Office Goal



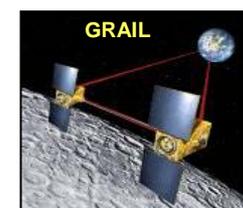
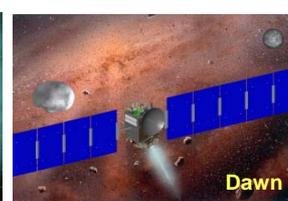
5-43702

## Goal .....

- ◆ Enhance the probability of mission success of Discovery Projects through independent oversight and insight through all phases of the mission life cycle utilizing a high-powered, effective, and efficient team.

## Success is.....

- ◆ Delivering Mission Science to the PI (meet the Level I requirements)
- ◆ Ensuring the implementing organization's success in delivering the spacecraft on cost and schedule (meet the launch date and cost cap)
- ◆ Meeting the Program launch frequency for Science Missions



## Approach .....

- ◆ **Shared partnership for mission success with Headquarters and project teams. Right level of Government involvement to mitigate program risk**

## Relationships .....

- ◆ **Role: Implement our role as a program office, while recognizing the responsibility and authority of the projects and institutions**
- ◆ **Fairness: Operate with integrity and fairness at all times with all parties**
- ◆ **Trust: We will approach new relationships with an attitude of trust**
- ◆ **Respect: Recognize the dedication and capability of the PI/project teams, especially during times of problems**

# Discovery, New Frontiers, & Lunar Quest Program Office Organization



**Discovery, New Frontiers, Lunar Quest Program Office**  
 Program Manager: Dennon Clardy  
 D&NF Deputy Program Manager: Allen Bacskay  
 LQ Deputy Program Manager: John McDougal  
 Office Support Assistant: Sandra Nixon  
 Program Coordinator: Mendy Danford

**Program Integration Office**  
 Integration Manager: Bill Kahle  
 Integration Analyst: Marilyn Newhouse  
 Integration Analyst: Tom Hushka  
 Schedule Analyst: Nate Porter  
 Integration Engineer: Paul Galloway  
 LQ Integration Support: Karen Stephens  
 CM/DM Lead: Nancy Hill

**Business Office**  
 Business Office Mgr.: Donna Patterson  
 Program Analyst: Melissa Henderson  
 Program Analyst: Stephanie Allen

**Procurement Office**  
 Contract Officer/Mgr: Melinda Dodson  
 Contract Specialist: Belinda Triplett  
 Contract Specialist: Vanessa Jones

**Education & Public Outreach**  
 D&NF E&PO Lead: Shari Asplund/JPL  
 LQ E&PO Lead: Brian Mitchell  
 LQ E&PO Support: Stephanie Wilson

**Program Technical Authority**  
 Lead Chief Engineer, D&NF: Judy Ballance  
 Asst. Chief Engineer, D&NF: Mike Galuska  
 Lead Chief Engineer, LQ: Bryan Barley

**Program Safety & Mission Assurance**  
 S&MA Lead: Dr. Ruth Jones

**Detailee:**  
 Carl Ise  
 Shelia Nash-Stevenson  
 Jeri Briscoe

D&NF Program Office

**Mission Managers**  
 Jimmy Lee  
 Steve McClard  
 Danny Harris  
 Rick Turner  
 Randy Baggett  
 Brian Key

**Discovery Missions**  
**New Frontiers Missions**  
**Lunar Quest (LQ) Missions**

- MESSENGER
- New Horizons
- Strofi
- M<sup>3</sup>
- New Frontiers AO3
- LRO Science Msn
- LADEE
- Dawn
- ASPERA-3
- GRAIL
- Juno
- Stardust-NExT
- EPOXI
- Discovery AO 2010

# Program Office

## *Primary Responsibilities*



5-43702

### ◆ Implement 7120.5 Program Management functions

- Split responsibility between the SMD Program Director and Discovery Program Manager
- Program Manager focus is implementation of Phases B, C, D, E

### ◆ Perform limited oversight and insight of projects (budget, schedule, technical and risks) (Phase B, C, D, E)

- When, where and how deep to penetrate determined by assessment of risks and modulated by available budget

### ◆ Manage program implementation budgets (Phase B, C, D, E)

- Independently assess project performance to plan
- Ensure projects receive required funding per plan
- Collect POP data from projects, provide integrated assessment/input to SMD

### ◆ Administer contracts (Phase A, B, C, D, E)

- Execute Task Agreements with JPL, perform COTR function on APL missions, and execute contracts with PI institutions

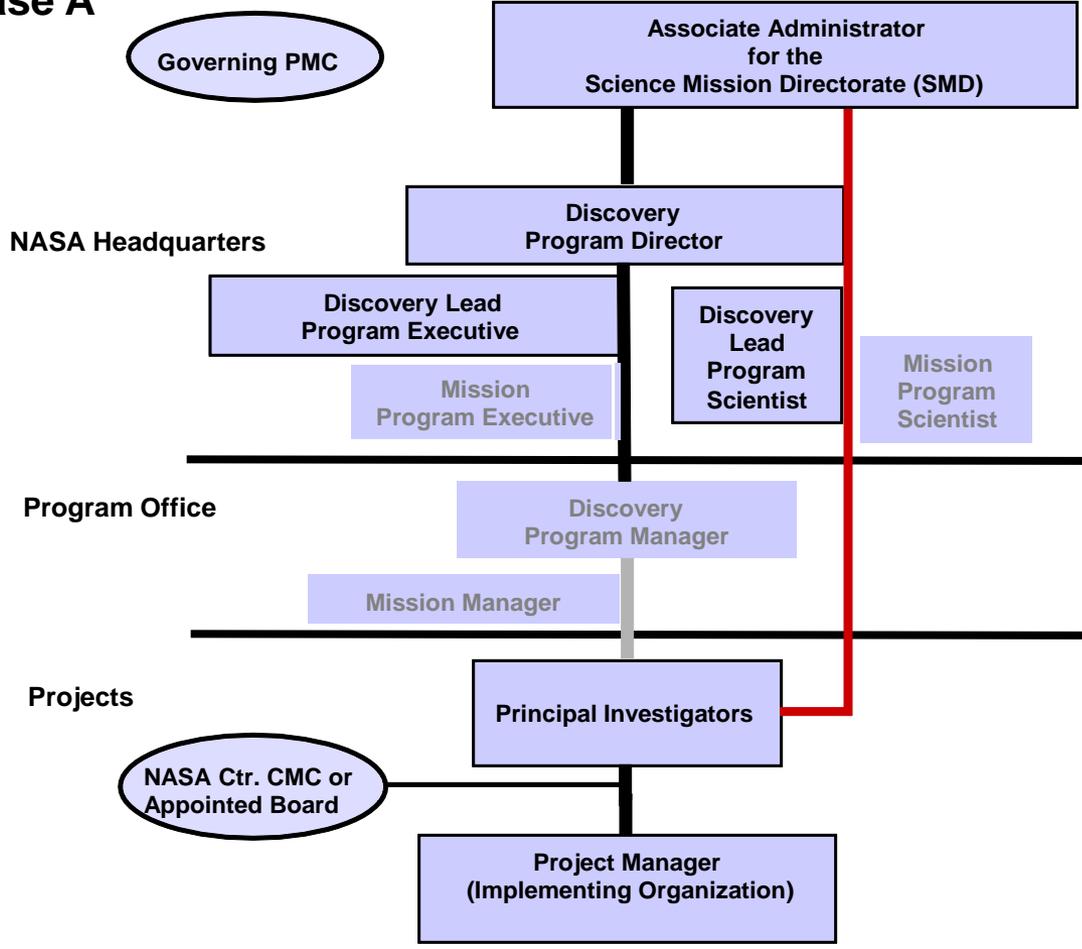
# Program Structure

## Phase A



3702

### Phase A



**Phase A**

Multiple investigations.

SMD competitive downselect prior to Phase B.

D&NF PM reviews AO for requirements compliance & lessons learned.

D&NF PM writes contracts per direction of SMD scientist.

D&NF PM has no formal role in competitive mission selection process; PM observes SMD-led evaluation panels.



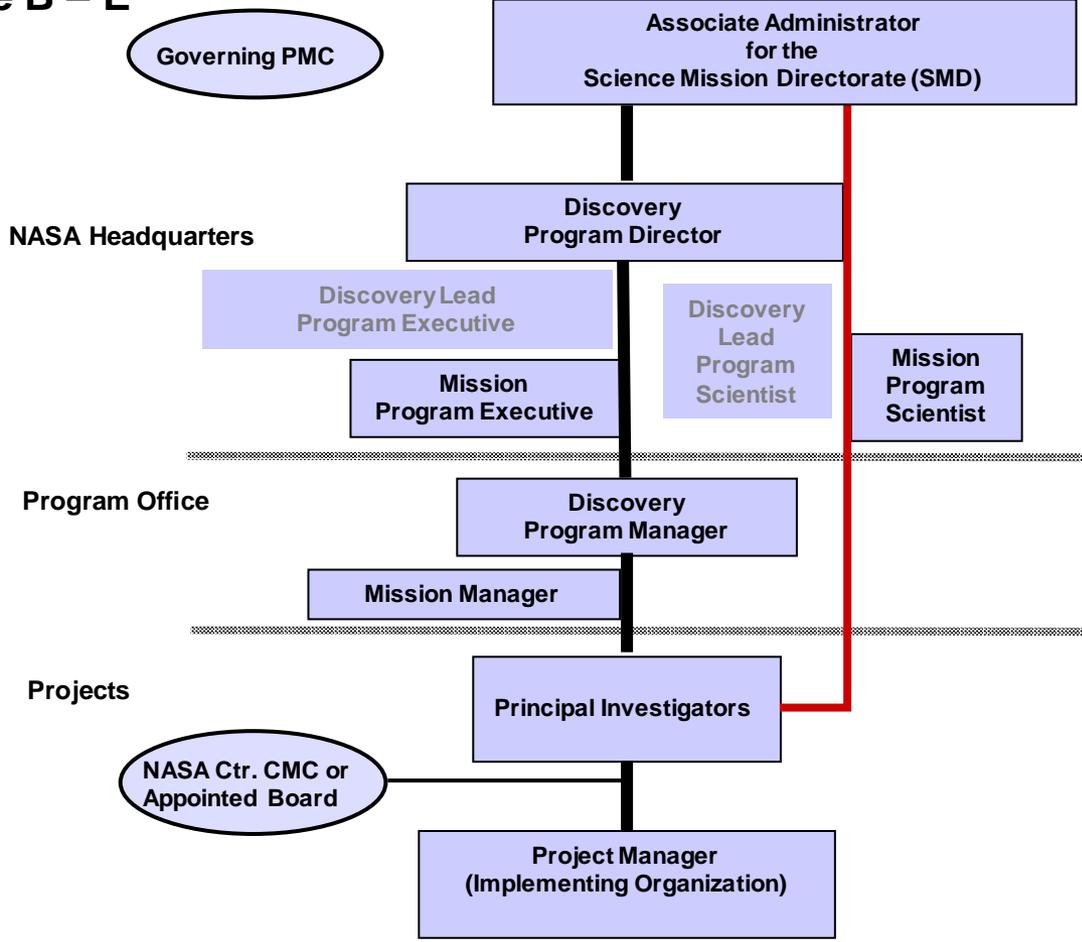
# Program Structure

## Phases B, C, D, E



5-43702

### Phase B – E



**Phase B, C, D, E**

**Confirmation Review at end of Phase B**

**Decision Authority makes confirmation decision**

**PM becomes heavily engaged following selection**



# Roles and Responsibilities



Discovery Program

5-43702

- ◆ After selection, **Principal Investigators** are responsible to the Program Manager for programmatic success and to the AA for SMD for scientific success
  - **Principal Investigator (PI)** vested with overall responsibility for scientific integrity and mission success
  - **Project Manager** is responsible to the PI for the successful development and implementation of the mission. They report to their institutional management and programmatically through the Discovery Program Manager
- ◆ **Program Manager** is responsible for mission project formulation, development, launch, on-orbit checkout, mission operations, and data analysis
  - Ensuring that the Discovery project adheres to committed cost, schedule, performance, reliability, safety requirements, and E&PO
  - Discovery Program Office works directly with Project Manager in accomplishing the mission, particularly in the areas of resource allocation and utilization, oversight, reporting, and resolution of project issues
  - **Mission Managers** act on behalf of the Program Manager and are the primary Program Office interface for Principal Investigators and Project Managers

Specific roles are defined in the Discovery Program Plan (DISC-PLAN-001), available on-line in the Discovery Program Library; <http://discovery.larc.nasa.gov/discovery/dpl.html>

# Mission Managers



5-43702

## *Key Roles and Responsibilities*

- ◆ **Mission Managers (MM)** function as the PMs day-to-day point-of-contact for all assigned projects, performing technical and programmatic management functions on behalf of the PM and ensuring the PM maintains an awareness of the project status. The MM responsibilities include:
  - Interface directly with the Project Managers to develop inputs for program planning and integration or to resolve project issues
  - Perform independent evaluation of project metrics, schedule, cost data, management, and issues for the PM
  - Perform independent assessments of projects to identify risks and mitigations
  - Serve as the Program Office advocate to NASA management, the public, and other Government entities for assigned projects
  - Lead the development of decision packages or products that are fully coordinated within the Discovery Program and with the related PIs and Project Managers
  - Ensure that appropriate program resources are provided to the projects in a timely manner

# Contracts / Business Management



5-43702

## Contract Management

- ◆ **Program Office** manages contracts with Principal Investigator organization and implementing organization, if applicable
  - If the organization has an associated NASA Management Office (NMO) the contract is managed by the NMO with input from the Program Office on the project task
- ◆ **Program Office** provides Phase A contract support as a service to SMD, however the Program Office is not involved in the selection process

## Business Management

- ◆ **Program Business Office** coordinates the annual overall program budget planning activity in conjunction with all Discovery projects
  - Results are documented in a Program Funding Agreement with each Project
- ◆ **Missions** are required to provide standard NASA financial reports
- ◆ **Missions** are responsible for the overall project budget
  - Information on project by-pass funding (e.g. direct funding to NASA centers) is provided by the Program Office
- ◆ **Missions** are required to implement Earned Value Management – developed in phase B, utilized during phase C/D

# Establishing Project Baselines

## Program Level Requirements Appendix (PLRA) Process

