



# NASA HQ EMD Update: Risk, Encroachment, MSP, and the Meaning of Life

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*Ensuring Environmentally Sound Mission Success*

# Risk Management Update

- **Status:**
  - **302 issues, risks and threats (IRT) identified at the E&E conference**
  - **Top scoring IRT's (54) assigned to one of the four EMD focus areas**
  - **Each focus area reviewed IRT's and compared to current I&A risk plan**
  - **Focus areas decided disposition for each IRT**

# Risk Management Update

- **Next Steps:**
  - IRT's disposition to be posted to PBMA website and sent to attendees
  - New and revised risks/mitigation to be written
  - Appropriate candidate risks to be proposed to I&A risk board
  - Integrate mitigation plans and actions within EMS, MSIP and I&A Risk Plan
  - Continue to evaluate newly identified risks
  - Manage EMD owned risks

**Encroachment: A Part of Institutional Risk**  
**Briefing to Shana Dale**

**Infrastructure and Administration**  
**January 30, 2007**



# Encroachment

## Issues

- Centers and facilities need resources to execute center operations and support program and project missions.
- Execution and support are limited by external pressures and resource availability.
- These impacts are collectively defined as encroachment.
- Identifying and understanding risks from encroachment are one key to implementing institutional risk management.

# Encroachment

## Background

- **Encroachment is the cumulative impact of pressures placed on NASA's infrastructure, Centers, Facilities and the surrounding communities resulting from:**
  - ❖ **Increased site specific development and urbanization**
  - ❖ **Increased external requirements**
  - ❖ **Competition for resources, such as air, water, radio spectrum**
  - ❖ **Rising costs and reliability of energy and other resources required by NASA**
- **These pressures cause increased mission costs, schedule disruptions, and pose challenges to performance requirements.**
- **Infrastructure and Administration (I&A), in conjunction with center staff, will hold two day encroachment workshops at each Center/Facility.**

# Encroachment

## Workshop Goals

- **At the conclusion of the workshop, each Center/Facility will have:**
  - ❖ **Identified encroachment risks to center operations and mission**
  - ❖ **Developed mitigation strategies to manage/mitigate risks**
  - ❖ **Begun to incorporate these risk strategies in the center's master plan and management systems as appropriate**
  - ❖ **Begun to incorporate these risks into their risk database**
- **In order for the workshops to succeed, participants must represent a balanced cross-section of the Center/Facility institutional and mission functions.**
- **Center/Facility encroachment risks will be consolidated to help identify potential Agency level risks to be incorporated into the developing I&A risk management process.**

# Encroachment

## Next Steps

- Request that the Deputy Administrator:
  - ❖ Ensure that the letter to Center Directors requesting their support is signed (occurred 2/13/07)
  - ❖ Affirm support with Center Directors and senior leadership at appropriate venues
  - ❖ Reinforce the need to send the right people representing a balanced mix of institutional and mission support

# Mission Support Plan

## Briefing to the Senior Management Council



Olga M. Dominguez  
Office of Institutions and Administration  
February 21, 2007

# Mission Support Plan

- The Mission Support Plan (MSP) is a high level strategic document
- The MSP represents NASA's first integrated plan to ensure that our Mission Support base is aligned and configured to optimally support and enable mission success
  - Tool for NASA community to understand institutional contributions and impacts to Mission

# Mission Support Plan

- The MSP:
  - Aligns Mission Support Activities with the NASA Strategic Plan
  - Establishes 5 integrated cross-cutting Framework Teams in support of mission
  - Establishes integration points across the MSOs, Mission Directorates and the Centers to reduce risk to mission
  - Yield efficient & effective use of resources so NASA can better meet its strategic goals and fulfill its stewardship role

# MSP Highlights

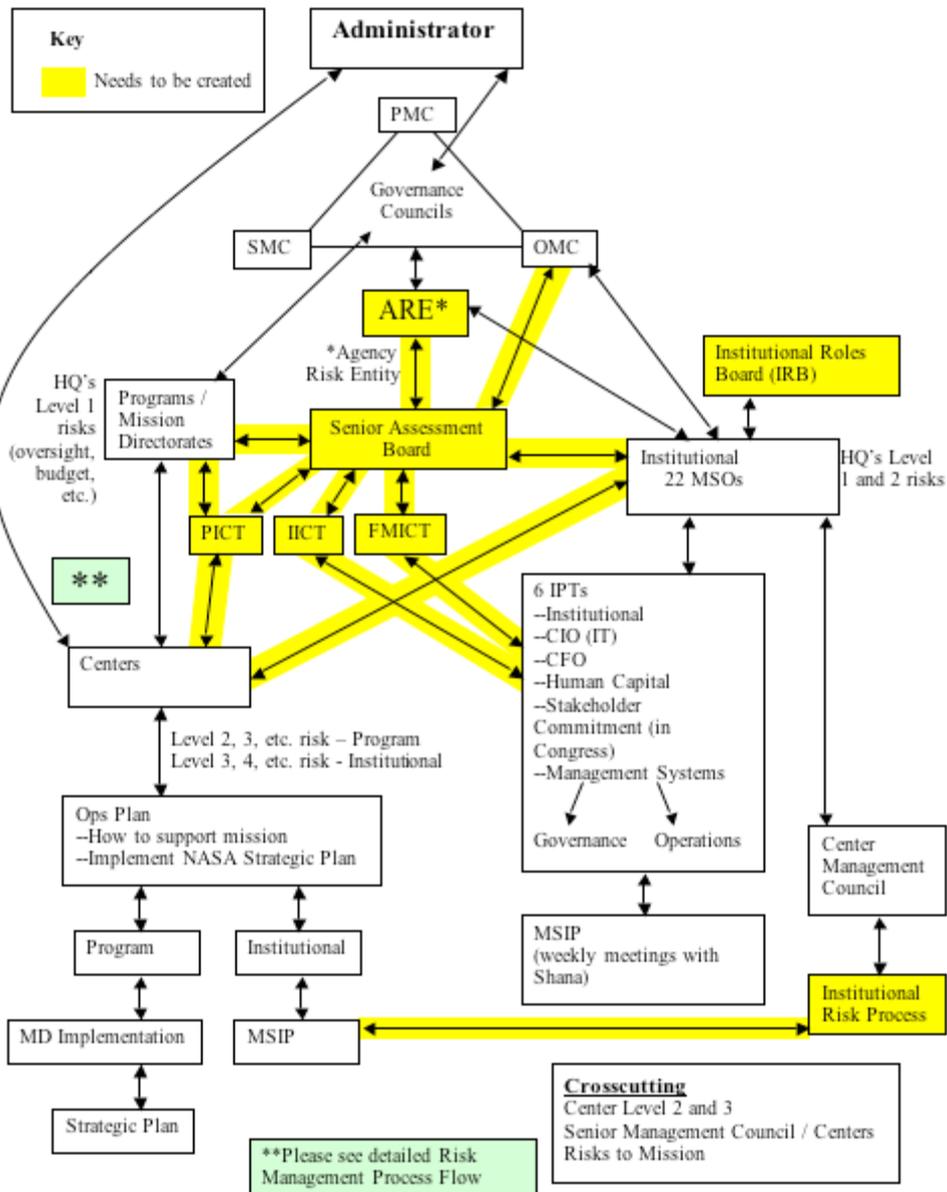
- Establishes 7 mission support goals that support accomplishment of the NASA Strategic Goals
- Includes 5 Integrated Framework Documents (Workforce, Infrastructure, Finance, Information Systems, and Management Systems) with sub-goals and objectives that are aligned to the mission support goals
- Identifies 24 high-impact objectives that will receive emphasis during the initial phase of implementation
- Creates an institutional performance structure that will be used internally to measure progress against the goals
  - Report to Deputy Administrator via standing Tuesday meetings
  - Report Quarterly to the OMC

# Seven Mission Support Goals

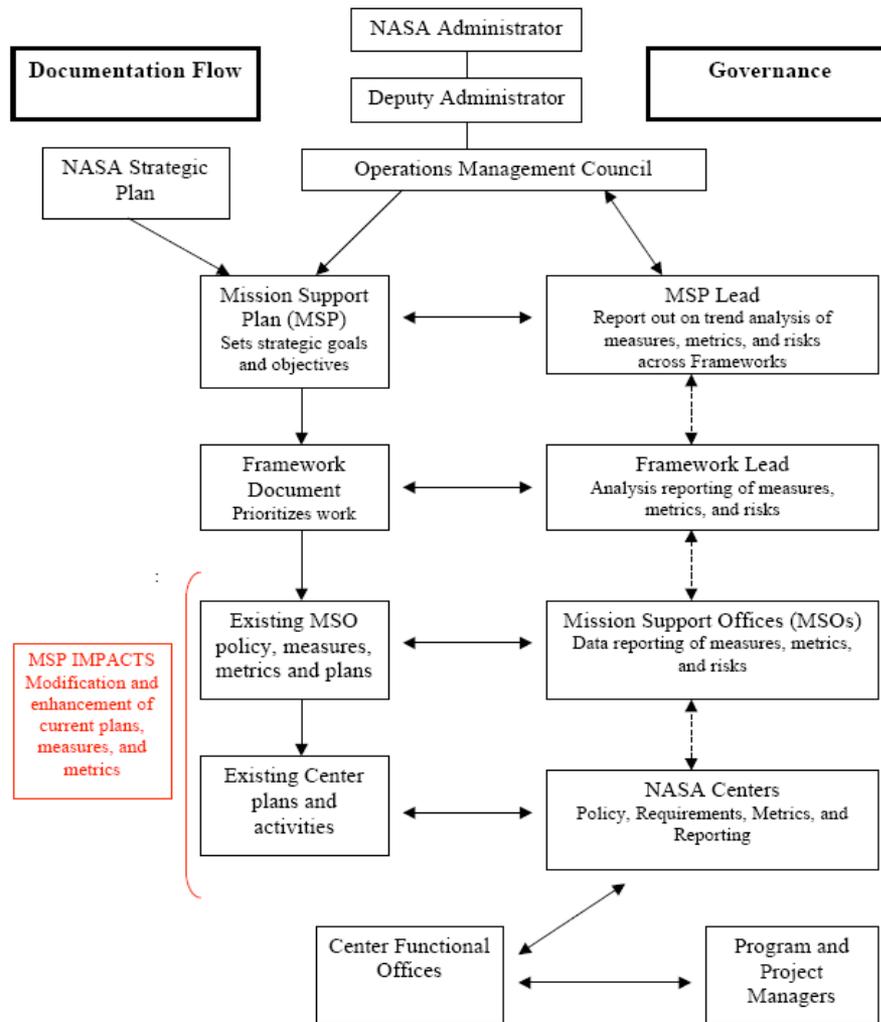
- **MSG-1: Determine mission needs and corresponding institutional requirements through joint mission and institutional planning.**
- **MSG-2: Secure and align the skills, competencies, resources, and capabilities necessary to execute Agency missions effectively and efficiently.**
- **MSG-3: Create institutional flexibility by ensuring tools and processes are in place to respond to changing mission needs.**
- **MSG-4: Manage external requirements and expectations to optimize Agency missions.**
- **MSG-5: Optimize Agency decision-making by integrating accurate, timely, and relevant institutional information with program and project information to contribute to overall efficient use of resources and cost effectiveness.**
- **MSG-6: Improve Agency risk management by integrating institutional, programmatic, and strategic risk management.**
- **MSG-7: Sustain long-term mission viability by deploying processes, techniques, and innovations that meet today's requirements without compromising the ability to meet future needs.**

# Mapping NASA's Strategic Goals to the Mission Support Goals

	MSG-1	MSG-2	MSG-3	MSG-4	MSG-5	MSG-6	MSG-7
Strategic Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010	x	x	x	x		x	x
Strategic Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human exploration	x	x	x	x	x	x	x
Strategic Goal 3: Develop a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration	x	x	x	x	x		x
Strategic Goal 4: Bring a new Crew Exploration Vehicle into service as soon as possible after Shuttle retirement	x	x	x	x	x	x	x
Strategic Goal 5: Encourage the pursuit of appropriate partnerships with the emerging commercial space sector		x	x	x			x
Strategic Goal 6: Establish a lunar return program having the maximum possible utility for later missions to Mars and other destinations	x	x	x	x	x	x	x



## MSP DOCUMENTATION/GOVERNANCE STRUCTURE



# NASA Mission Support Offices

Office of Safety and Mission Assurance<sup>1</sup>  
Office of the Chief Engineer<sup>1</sup>  
Office of Program Analysis and Evaluation  
Office of the Chief Financial Officer  
Office of the Chief Information Officer  
Office of the General Counsel  
Office of the Integrated Enterprise Management Program  
Office of the Chief Health and Medical Officer<sup>1</sup>  
Office of Institutions and Management  
NASA Shared Services Center  
Office of Human Capital Management  
[Office of Infrastructure and Administration](#)  
Office of Security and Program Protection  
Office of Diversity and Equal Opportunity  
Office of Procurement  
Office of Small and Disadvantaged Business Utilization  
Office of the Chief of Strategic Communications  
Office of Education  
Office of External Relations  
Office of Legislative Affairs  
Office of Public Affairs  
Office of Communications Planning

<sup>1</sup>The Office of Safety and Mission Assurance, The Office of the Chief Health and Medical Officer, and the Office of the Chief Engineer have programmatic as well as institutional responsibilities. The scope of this plan only covers their institutional activities.

# High-Level Objectives for Infrastructure Framework

## INFRASTRUCTURE

### **IN-1: Obtain mission needs by conducting joint planning early and throughout the lifecycle of program and projects.**

IN-1B: Ensure the formal integration of institutional considerations into programs and projects from project inception to completion and final asset disposition to provide more effective support to the mission.

IN-1C: Prioritize and allocate infrastructure resources to balance optimal support of mission needs with externally levied requirements. (NASA is committed to complying with external regulations.)

### **IN-2: Ensure that infrastructure, assets, and capabilities are aligned and configured to mission and available when needed.**

IN-2A: Leverage and size assets, capabilities and resources to meet mission needs, eliminate excess capacity, and scale asset performance accordingly.

IN-2C: Transition shuttle infrastructure assets as appropriate, by developing and implementing disposition plans of unneeded assets to effectively and efficiently support the Vision for Space Exploration.

### **IN-3: Implement risk mitigation and sustainability practices across the Agency's infrastructure to prevent adverse mission impacts, protect mission resources, and enable the NASA mission to the fullest extent possible.**

IN-3A: Integrate continuous risk management practices into the life cycle management of NASA's infrastructure to enhance mission support and sustainability.

IN-3B: Enhance mission performance and reduce life cycle costs of operations, maintenance, and disposition of infrastructure assets to ensure maximum funding is available to mission programs and projects through sustainability design practices and the implementation of new technologies.

# Next Steps

- Centers, MDs and MSOs reviewed the draft MSP from December 2006, over 500 comments received
  - Reconcile comments and update the MSP (completed)
- Centers, MDs and MSOs received the final MSP and the draft NPD and NPR on February 12, 2007 for review; comments are due back by March 1, 2007
  - March 15, 2007 is target date for insertion into NODIS
- Deputy Administrator will conduct follow up off-site with MSOs and Centers
- Incorporate guidance in upcoming budget planning documents (February)

# Contact Information

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