

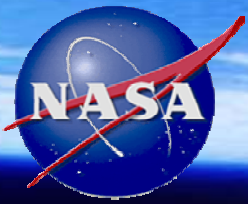


Medical Policy Formulation in NASA

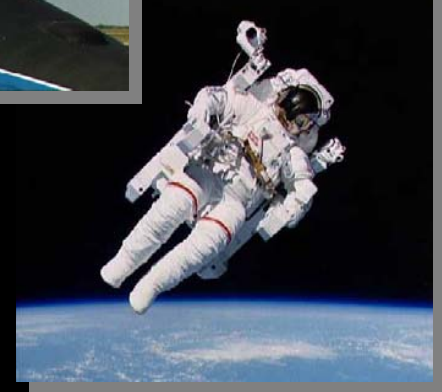
Rich Williams

NASA Chief Health and Medical Officer

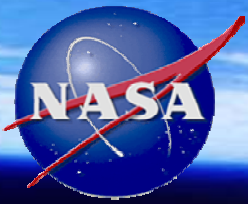




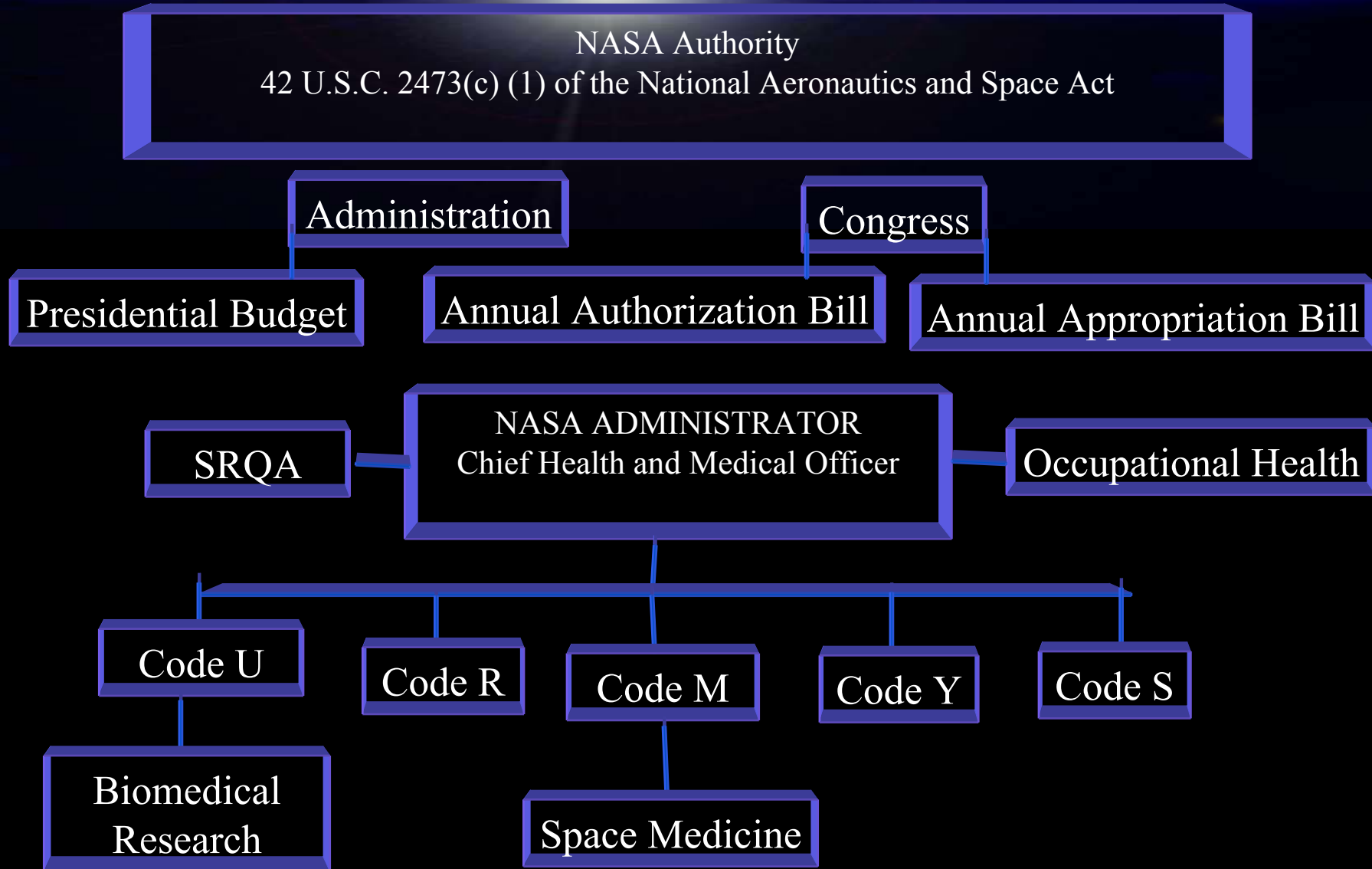
Stakeholders

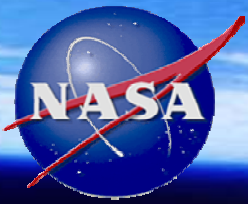


NASA work force,
Industry, Private Sector,
International Partners, Government,
Public, Global Community



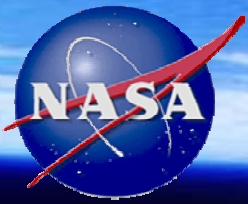
Flow of Authority for Medical Policy at NASA





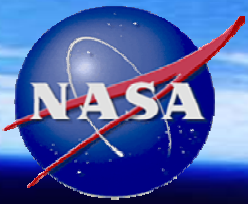
Policy Makers

- Medical Policy Board (HQ)
 - *Medical policy for space medicine, atmospheric flight, and occupational health*
 - *Permanent medical waiver authority*
 - *Reviews/approves selection and retention medical standards*
 - *Review of salient space medicine issues with recommendations to the Office of Space Flight as appropriate*
 - *Reviews health related research requirements and deliverables*
- Aerospace Medicine Board (JSC)
 - *Clinical board*
 - *Temporary medical waiver authority, recommends permanent waivers*
 - *Develops medical standards*
- Health Board (HQ)
 - *CHMO chairs*
 - *Occupational Health forum*

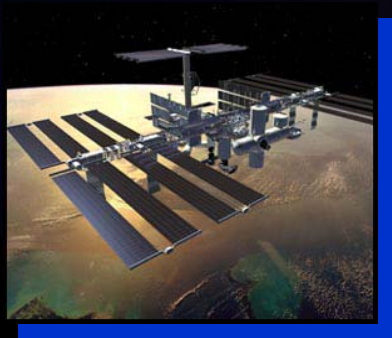


Policy Makers

- **Medical Policy Board Membership**
 - *NASA physicians*
 - *National Institutes of Health*
 - *DoD*
 - *Agency for Health Care Research and Quality*
- **Aerospace Safety Advisory Panel**
- **Aerospace Medicine and Occupational Health Advisory Committee**
 - *NASA Advisory Council*
- **Institute of Medicine**



NASA Medical Policy Process for Space Medicine



Policy, Review &
Oversight
OCHMO

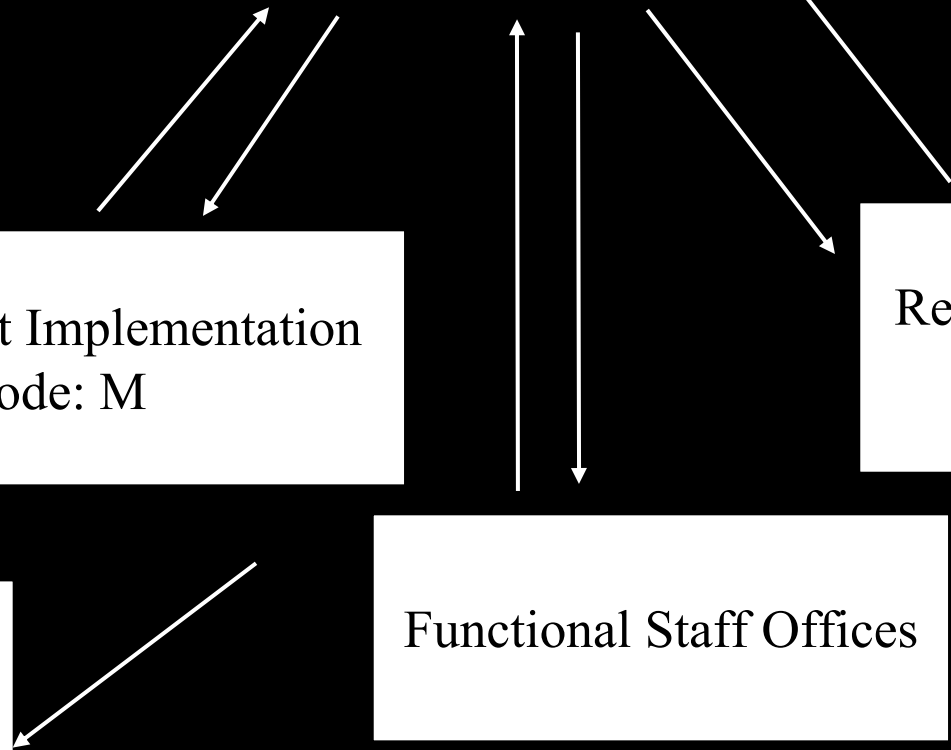


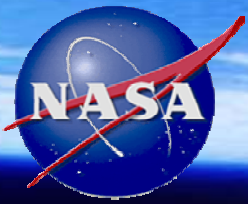
Space Flight Implementation
Code: M

Research Codes:
U,R,S,Y

Functional Staff Offices

Crewmembers
NASA Workforce



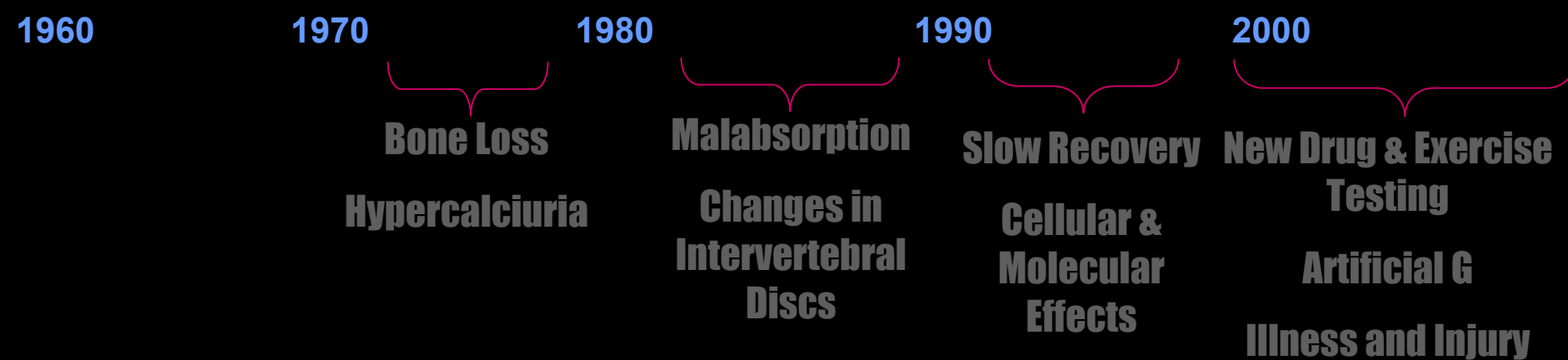


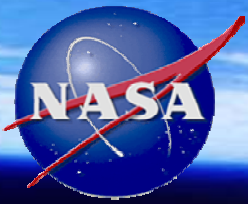
Evidence Acquisition for Space Medicine

Is There
A Problem?

Defining
the Problem

Countermeasures Found
Not Effective

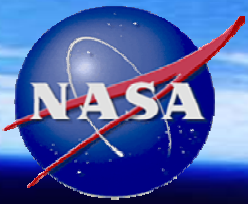




Evidence Base for Space Medicine

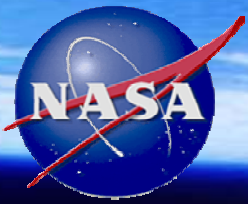
- Types of examinations
 - *Selection*
 - *Retention*
 - *Pre-flight*
 - *Post-flight*
 - *Post-retirement*
- Components of examinations
 - *Physical exam*
 - *Laboratory analysis*
 - *Imaging*
 - *Special studies*

**Longitudinal Study of
Astronaut Health**



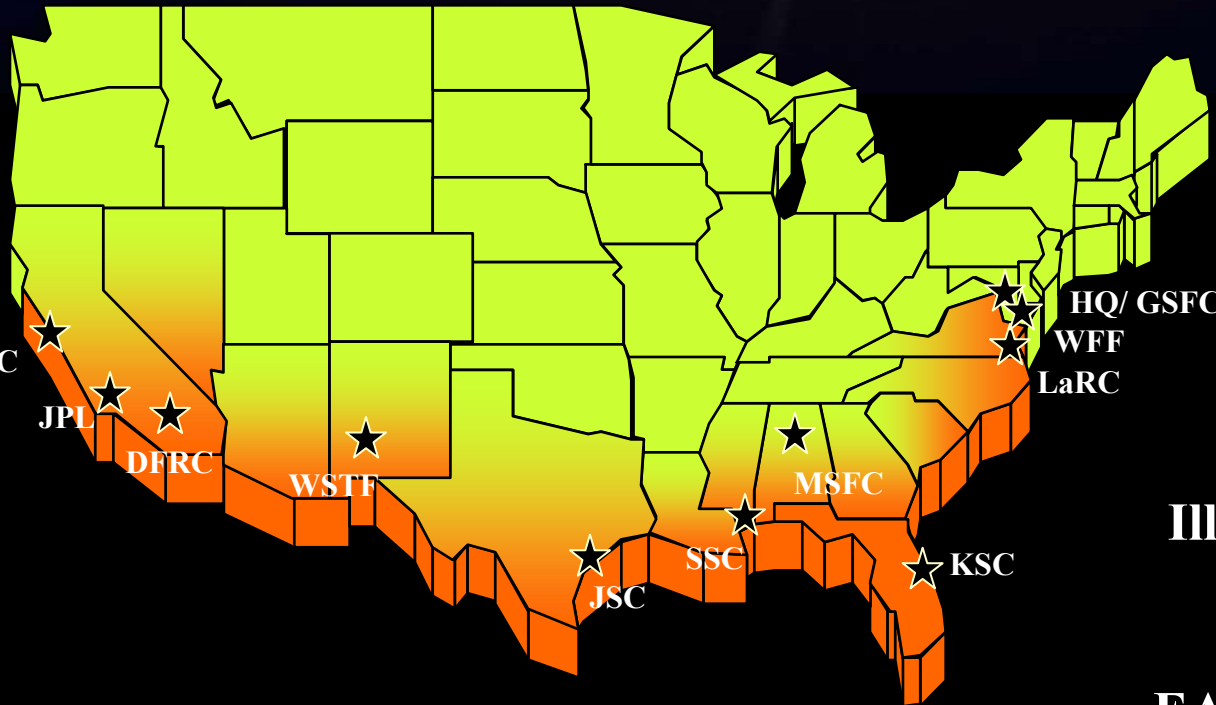
Evidence Base from ground analogs





Evidence Base for Occupational Health

18,500 Civil Service Employees Agency-Wide



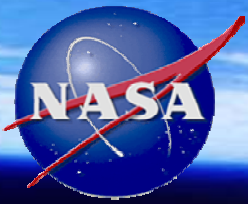
Longitudinal Study of Employee Health

Worker's Comp cases

Illness/Injury database

EAP usage

Leave stats (sick leave, unscheduled leave)



Facilitators and/or Obstacles

- **Facilitators**

- *Partners*

- International
 - Academia
 - Other Federal Agencies

- *Strategy, clear goals*

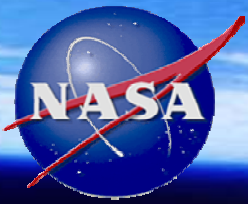
- *Training*

- **Detractors**

- *Resource acquisition and allocation*

- *Access to space*

- *“Traditional” science approach*



Outcome and Impact

Ensure the health and safety of NASA employees in all environments

- Develop sensible health and medical policies*
- Establish guidelines for NASA health and medical practice*
- Provide oversight of health care delivery and assurance of professional competency*
- Target health related research*
- Ensure protection of research subjects and patients*
- Review/approve medical selection/retention standards*
- Ensure responsible implementation of standards*