



NASA Science Plan

- 1. Excerpt from 2005 NASA Authorization Bill**
- 2. Generic NASA Science Strategic Planning Process**
- 3. Proposed Outline for the Science Plan**
- 4. Development Schedule**
- 5. Plan for Breakout Sessions**

**Mr. Greg Williams
NASA Science Mission Directorate**

**May 4, 2006
Science Planning Conference
U MD Conference Center**

Title I Section 101

(d) SCIENCE.— (1) IN GENERAL.—The Administrator shall develop a plan to guide the science programs of NASA through 2016.

(2) CONTENT.—At a minimum, the plan developed under paragraph (1) shall be designed to ensure that NASA has a rich and vigorous set of science activities, and shall describe— **(A) the missions NASA will initiate, design, develop, launch, or operate in space science and earth science through fiscal year 2016, including launch dates; (B) a priority ranking of all of the missions listed under subparagraph (A), and the rationale for the ranking;** and (C) the budget assumptions on which the policy is based, which for fiscal years 2007 and 2008 shall be consistent with the authorizations provided in title II of this Act.

(3) CONSIDERATIONS.—In developing the science plan under this subsection, the Administrator shall consider the following issues, which shall be discussed in the transmittal under paragraph (6): (A) What the most important scientific questions in space science and earth science are. (B) How to best benefit from the relationship between NASA's space and earth science activities and those of other Federal agencies. (C) Whether the Magnetospheric Multiscale Mission, SIM-Planet Quest, and missions under the Future Explorers Programs can be expedited to meet previous schedules. (D) Whether any NASA Earth observing missions that have been delayed or cancelled can be restored. (E) How to ensure the long-term vitality of Earth observation programs at NASA, including their satellite, science, and data system components. (F) Whether current and currently planned Earth observation missions should be supplemented or replaced with new satellite architectures and instruments that enable global coverage, and all-weather, day and night imaging of the Earth's surface features. (G) How to integrate NASA earth science missions with the Global Earth Observing System of Systems.

(4) CONSULTATION.—In developing the plan under this subsection, the Administrator shall draw on decadal surveys and other reports in planetary science, astronomy, solar and space physics, earth science, and any other relevant fields developed by the National Academy of Sciences. The Administrator shall also consult widely with academic and industry experts and with other Federal agencies.

(5) HUBBLE SPACE TELESCOPE.—The plan developed under this subsection shall address plans for a human mission to repair the Hubble Space Telescope consistent with section 302 of this Act.

(6) SCHEDULE.—The Administrator shall transmit the plan developed under this subsection to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than 1 year after the date of enactment of this Act. The Administrator shall make available to those committees any study done by a nongovernmental entity that was used in the development of the plan.

NASA SCIENCE PLAN for 2007-2016
Annotated Outline
DRAFT 4/19/06

	Approx Pg Count
Preamble: The NASA Science Story <i>[PH/GW]</i>	1
Purpose & Progress <i>[GW]</i> (front matter + content)	6
Tie to NASA Strategic Plan	
Table of goals and long-term outcomes	
Highlights of recent accomplishments	
Summary of Science Questions and Prioritized Missions (mostly tables)	2
Common Elements of Strategy	12
Use this section to describe strategies employed Directorate-wide.	
SMD Principles <i>[PH/GW]</i>	
Science prioritization and community engagement (NRC, NAC, etc) <i>[GW/MA]</i>	
Role of R&A <i>[PH/GW]</i>	
Research solicitation & selection (peer review basis, etc.) <i>[PH]</i>	
Program & Mission Development (mission classes, strategic & PI-mode, launch & communications services) <i>[LM/CH]</i>	
Technology management approach <i>[GK]</i>	
EPO strategy <i>[CP]</i>	
Interagency and international partnerships <i>[MA/JF/RS]</i>	
Research Areas	4x20 = 80
<ul style="list-style-type: none"> ○ Earth Science <i>[JK/LT]</i> ○ Heliophysics <i>[BG]</i> ○ Planetary Science <i>[PC/MN]</i> ○ Astrophysics <i>[ES/MS]</i> 	
[For each, address applicable elements of the following:	
Science questions and their importance/relevance, including:	
Advice from NRC Decadal Surveys and other sources	
Presidential / Congressional directives	
Long-term outcomes to be achieved	
"Roadmap" to be followed	
Research & analysis	
Programs and projects (<i>prioritized, with launch dates thru 2016</i>)	
Partnerships	
Interagency	
International	
Technology development	
Data and information management	
Computational modeling	
Space & ground communications	
Applied sciences	
Milestones (link to RFAs)	
Beyond 2016...	
Science Enabling & Enabled by Human Exploration	4
Use this section to describe: how science enables and is enabled by human exploration; SMD's relationship to ESMD; science at the Moon; science in preparation for human expeditions to Mars <i>[GJ]</i>	
Summary: On the Brink of Understanding <i>[GW]</i>	1
Appendices	8
Acronyms & References (w/websites)	
Table/chart of launches 2007-2016	
Table of Goals, Outcomes, & RFAs	
Total ~	112

Plan for the Breakout Sessions

- ∞ Overview briefing in each breakout / Subcommittee session on:
 - ∞ Overview of Division Planning Process
 - ∞ NRC Decadal Survey & Other Reports
 - ∞ Community Roadmap Summary
 - ∞ Top-level Impact of Budget on Pace of Implementation
 - ∞ External & Internal Drivers/Constraints
 - ∞ Proposed Outline of this section of the Science Plan
 - ∞ Science Questions
 - ∞ Criteria/Considerations in Establishing Mission Prioritization
 - ∞ Missions Thru 2016

- ∞ Discussion & Capture of Findings/Recommendations on:
 - ∞ Section Outline
 - ∞ Prioritization Criteria/Considerations
 - ∞ Mission Set and Priorities (where possible)
 - ∞ Issues, Concerns, & Other