



SMD Science Plan

Everything you ever wanted to know !

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From material provided by Dr. Michael New



Congressional Req't for a Science Plan

NASA Authorization Act for 2005 (S.1281)
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.**

(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.

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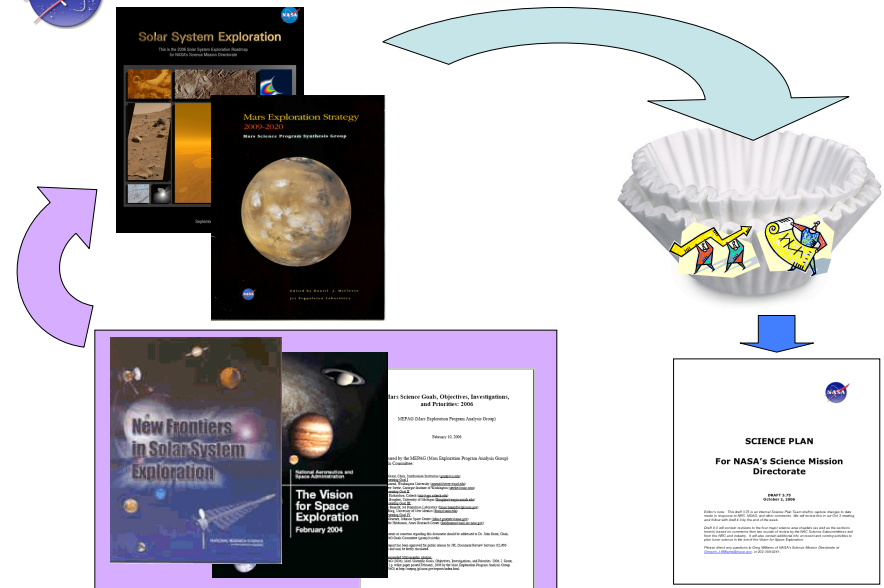


What? Why?

- Plan includes motivation and activities from 2006-16, including all missions that are currently planned to be started in that timeframe
- Covers all 4 SMD Divisions including priorities.
- A team at HQ went to work...



How the Science Plan relates to other strategies





Who reviewed the Science Plan?

- National Research Council Space Studies Board
- NASA Science Associates Group (major industrial contractors)
- Partner US Government Agencies
- NASA Advisory Council Subcommittees

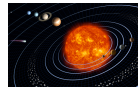
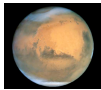


How were PSD priorities assigned?

1. Mars & rest of Solar System prioritized separately.
2. Operating missions and missions in development (active missions) have precedence over missions not yet started (planned missions).
3. Within the two groups of missions (active & planned):
 - a. Strategic missions > PI-led missions
 - b. PI-led missions with NRC heritage > other PI-led missions



What are the priorities?



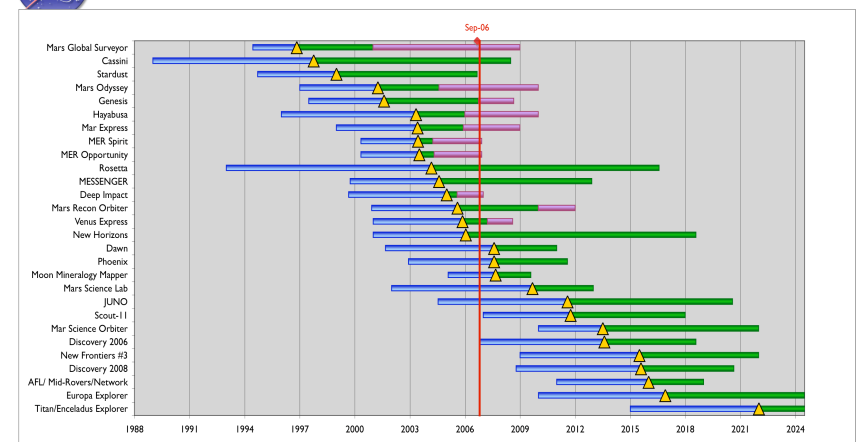
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|--|-------------------------------------|
| 1. Mars Science Laboratory (2009) | 1. Juno (2011) |
| 2. Phoenix (2007) | 2. Dawn (2007) |
| 3. Mars Science Orbiter (2013) | 3. Discovery 2006 (2013) |
| 4. Astrobiology Field Lab or Mid-Size Rovers or Network Landers (2016) | 4. Europa Explorer (>2016) |
| 5. Mars Scout-11 (2011) | 5. Titan/Enceladus Explorer (>2020) |
| | 6. New Frontiers 3 (2015) |
| | 7. Discovery 2008 (2015) |

Note:

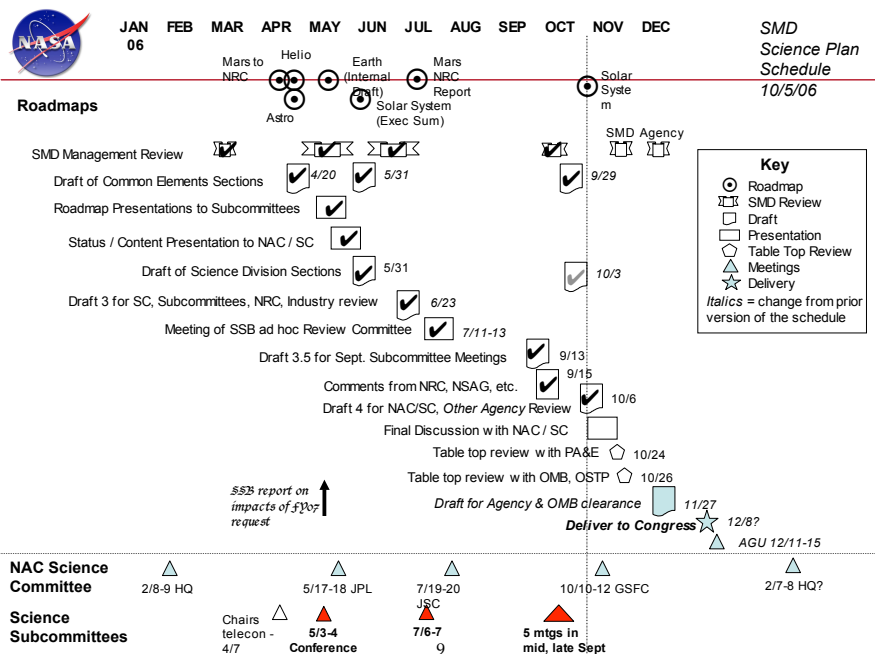
Mars Scout-11, Discovery 2008 and New Frontiers 3 are undefined missions at this time.
Discovery 2006 and Mars Scout-11 have AOs on the street.
Science definition of the Mars Science Orbiter will commence shortly.



Current Mission Timeline



blue bars = development
yellow triangles = launches
green bars = prime missions (inc. cruise)
purple bars = extended missions



Back-up Materials

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Conference Report Accompanying 2005 Authorization Act

Section 101(d) directs the Administrator to develop a plan to guide the space science and earth science programs of NASA through 2016. The priority ranking required by this subsection is a single ranking of all the missions that NASA lists pursuant to paragraph (2)(A), not a ranking categorized by theme or any other category...

The conferees are aware that the National Academy of Sciences is continuing to work on an Earth Science and Applications from Space Decadal Survey which is due to be completed in 2006. In preparing the science plan, NASA should, to the greatest extent possible, take into consideration information available from the Decadal Survey. The conferees expect NASA to notify the authorizing committees if the completed Decadal Survey would change any of the information provided in the science plan.