
Planning for the next NRC Decadal Survey for Solar and Space Physics

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Watershed Events in Solar & Space Physics

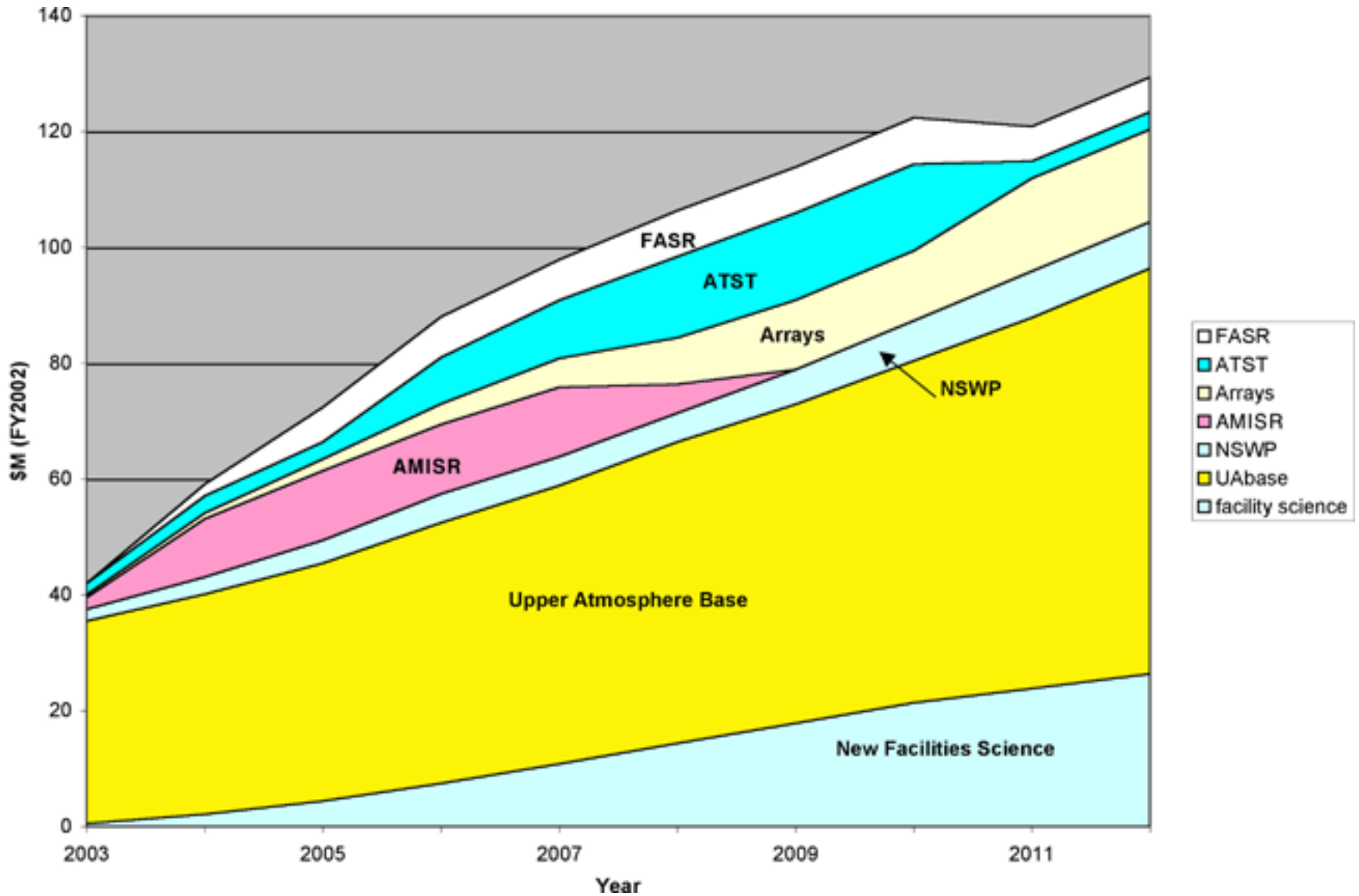
- 1995 - Establishment of National Space Weather Program
- 2002 - Community Survey of Solar & Space Physics
- 2006 - Decadal Review of National Space Weather Program (OFCM)

A new opportunity is now before us

Context

- ***The Sun to the Earth—and Beyond: A Decadal Research Strategy in Solar and Space Physics***
 - Summary Report (2002)
 - Compendium of Panel Reports(2003)
 - Was first NRC “decadal survey” in Solar and Space Physics
 - Integrated plan for the field
 - Sponsors: NASA, NSF, NOAA, DoD (AFOSR and ONR)
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NSF Program Costs:



Similar Terms of Reference for the 2013-2022 Survey (note new prioritization)

- **Provide an overview of the science** and a broad survey of the current state of knowledge in the field, including a discussion of the relationship between space- and ground-based science research and its connection to other scientific areas;
- **Identify the most compelling science challenges** that have arisen from recent advances and accomplishments;
- **Identify**—having considered scientific value, urgency, cost category and risk, and technical readiness—**the highest priority scientific targets for the interval 2013-2022**, *recommending science objectives and measurement requirements for each target rather than specific mission or project design/implementation concepts*; and
- **Develop an integrated research strategy** that will present means to address these targets

Note:

1. Missions prescribed in *The Sun to the Earth—and Beyond* and other recent NRC reports that are not yet in formulation or development will be reprioritized
 2. An independent contractor will assist the NRC in a cost and technical analysis of selected mission concepts—similar to that underway in the planetary and astronomy decadal surveys.
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Survey Organization

- Steering Committee
 - Approximately 16 representatives from across the community
 - Representatives from supporting study panels
 - Interdisciplinary (~8-member) study panels:
 - Atmosphere-Ionosphere-Magnetosphere Interactions
 - Solar Wind-Magnetosphere Interactions
 - Solar and Heliospheric Physics
 - “National Capabilities” Working Groups
 - Option for focused workshops; e.g., R2O
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Panel Organization

Astrophysics ←
Planets

Disciplinary Panels

→
Earth
Planets

National Capabilities Working Groups

	Solar Heliospheric	Solar Wind Magnetospheric	Atmospheric Ionospheric Magnetospheric
Theory, Modeling & Education			
Explorers, Suborbital, Other Platforms			
Innovations: Technology Instruments Data Systems			
R2O & O2R			

Schedule

- Spring 2010: Nominations to survey committee and panels completed
 - Summer 2010:
 - First of up to 5 meetings of the survey committee
 - First of 3 meetings of the panels
 - Working groups are organized and meet with panels
 - Survey committee and panels continue meeting throughout 2011
 - Report due to sponsors by March 31, 2012
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Summary Observations

- U.S. Space Weather program has grown organically (some trial and error)
 - New Decadal Survey offers opportunity for:
 - Better alignment of agency roles
 - Clearer reconciliation of research and applications goals
 - Gen. D. Eisenhower: “Plans are useless; Planning is essential”
 - M. Mead: “A small group of committed people can change the world. Indeed, it’s the only thing that ever has”
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