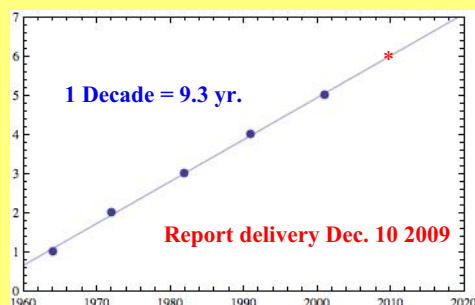


Astro 2010 Progress Report

Roger Blandford
Chair, Committee on Astro2010
KIPAC
Stanford

Decadal Surveys

- 1964: Ground-based Astronomy: A Ten Year Program (Whitford)
- 1972: Astronomy and Astrophysics for the 1970s (Greenstein)
- 1982: Astronomy and Astrophysics for the 1980s (Field)
- 1991: The Decade of Discovery in Astronomy and Astrophysics (Bahcall)
- 2001: Astronomy and Astrophysics in the New Millennium (McKee-Taylor)
- 2010: ???



Other Reports

- 2001: Connecting Quarks with the Cosmos (Turner)*
- 2003: Beyond Einstein: From the Big Bang to Black Holes (Phinney)
- 2004: The Physics of the Universe (OSTP)
- 2004: The President's Vision for Space Exploration (White House)
- 2004: The Quantum Universe (Drell)
- 2004: TPF Letter Report (Freedman)*
- 2005: Astrophysical Context of Life (Szostak-Wheeler)*
- 2005: Mid-Course Review (Urry)*
- 2005: Options for Extending the Life of HST (Lanzerotti)*
- 2006: Revealing the Hidden Nature of Space and Time (Shapiro)*
- 2006: From the Ground Up - NSF/AST Senior Review (Blandford)
- 2006: AAAC - Dark Energy Task Force (Kolb)
- 2007: NASA Astrophysics Performance Assessment (Keller)*
- 2008: Beyond Einstein Program Assessment Committee (Kennel)*
- 2008: AAAC- Exoplanet Task Force (Lunine)

* = NRC

AANM- Optimizing the Return

- Complete: Spitzer, ALMA, SOFIA, SIM, WMAP, Planck
- Budget for operations, upgrade, data, theory
- Unrestricted research grants
- Develop OIR system in ground-based astronomy
- NSF Senior Reviews
- DOE Strategic Plan for Astrophysics
- NASA develop balanced program - small, medium, large
- Integrated theory initiatives
- Inter-agency, international and private coordination, collaboration and cost-sharing

Major and moderate missions

Planning Construction Operation

JWST	1000	GSMT	350
Con-X	800	EVLA	140
TPF(tech)	200	LSST	170
SAFIR(tech)	100	TSIP	50
GLAST	300	ATST	60
LISA	250	SKA(tech)	22
SDO	300	CARMA	11
EXIST	150	VERITAS	35
ARISE	350	FASR	26
		SPST	50

(FY2000 costs in M\$ for construction and 5 yr operations in 2001-2010 interval)

More facilities

- KEPLER
- HST/SM4
- WISE
- NuSTAR
- IXO
- JDEM
- CMBPOL
- Planet Finder-Lite
- ARISE
- ...
- SPT
- MWA
- LWA
- ACT
- LBT
- CCAT
- ...

Astro-2010: Charge

- The committee will survey the field of space- and ground-based astronomy and astrophysics, recommending priorities for the most important scientific and technical activities of the decade 2010-2020.
- The principal goals of the study will be to carry out an assessment of activities in astronomy and astrophysics, including both new and previously identified concepts, and to prepare a concise report that will be addressed to the agencies supporting the field, the Congressional committees with jurisdiction over those agencies, and the scientific community.

Astro 2010: Approach

- Appointing the central "Survey Committee"
- Will appoint Prioritization Panels and community-based Study Groups
- Optimizing science for investment
- Include unrealized projects
- Assess cost, schedule, technical readiness, risk
- Engage the Astronomy and Astrophysics Communities
 - Web page at www.nationalacademies.org/astro2010
 - Community Town Hall Meetings at AAS in Long Beach Jan 09, APS in Denver May 09, and AAS in Pasadena June 09.
 - Engage community at the panel meetings and survey committee meetings.

Tentative Schedule

- December 2008 Survey Committee meets and establishes panel structure
- January 2009 AAS
 - Panels appointed
 - Definition of procedure for project prioritization
- June 2009 AAS
 - Prioritization Panels workshops
- December 2009
 - Merge project prioritization
 - Write final report
- Summer 2010
 - Present final report
 - Communicate contents to agencies, Congress and community