



# MPS/AST Portfolio Review: NSF Background/Charge

CAPS Briefing

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# Why Conduct a Portfolio Review?

- Foreseeable budgets will not be sufficient to meet the aspirations of the astronomical community
- National Academy of Sciences (NAS) decadal survey in Astronomy & Astrophysics advised: “If ... budget is truly flat ... there is no possibility of implementing ... the recommended program ... without ... enacting the recommendations of the first 2006 senior review and/or ... a second more drastic ... review before mid-decade.” (p. 240)
  - NAS survey assumed a budget for the Division of Astronomical Sciences (AST) that rises 4%/yr in purchasing power through the decade.
- Such reviews should be carried out periodically in any case, for responsible stewardship of the AST portfolio



# Goals/Charge/Budgets

- Goals
  - Foster U.S. leadership in ground-based astronomical research in 2020 and beyond
  - Achieve the balance that enables the most progress on the key scientific questions from the recent NAS decadal surveys
- Boundary conditions: No re-visiting NAS recommendations
  - Take decadal surveys as a “given”, and balance their recommendations with existing capabilities
- Provided two possible budget scenarios
  - A: AST budget flattens now, increases 5%/yr after FY16
  - B: AST budget continues downward trend to FY14, flattens, increases 3%/yr after FY16
  - These do not bound all feasible budget scenarios!



# Subcommittee Makeup

- 17 scientists, chaired by Dr. Daniel Eisenstein (Harvard)
  - Committee was constructed based on many balancing characteristics, including (but not limited to) science area, wavelengths (or theory) used, geographic/gender/ethnic/institutional diversity, career stage, etc.
  - Employees of national observatories or their managing organizations not included because of conflict-of-interest rules
    - Interests represented by past/present members of users committees, advisory committees, boards, etc.
    - National observatories also asked for targeted input



# AST Response to Report Follows after Description of Report and Recommendations



# AST Response Process

- Response document was published August 31—see [http://www.nsf.gov/mps/ast/ast\\_portfolio\\_review.jsp](http://www.nsf.gov/mps/ast/ast_portfolio_review.jsp)
  - General philosophy, plus comments about small grants, midscale, facilities, observatory scope
- IMPORTANT REMINDER
  - Detailed implementation is subsumed into the process of federal budget preparation--AST can neither decide nor act on its own
  - AST makes recommendations that flow up through the NSF budget-preparation chain of command and are iterated with Office of Management and Budget (OMB); eventually some version will make it into President's budget request for FY14
    - First specific proposals are public in Feb. 2013
    - Then, subject to Congressional action



# AST Response

- Grants: 7 specific recommendations; will keep research and instrumentation grant programs at high priority, try to maintain the recommended programs, starting new programs is unlikely except in Budget Scenario exceeding the more optimistic scenario
- Midscale: General agreement with idea to merge a number of programs into single competed line; ability to start a midscale program will depend on budget levels and NSF/OMB approval to start the line
- Facilities: Reminder that divestments are needed to support ramps for Atacama Large Millimeter Array and Advanced Technology Solar Telescope, NOT to enable LSST. Expect to make divestment decisions near end of CY 2013. Will be open to supplying bridge funding, support for infrastructure, as appropriate.



# Information/Briefings

- Extensive rollout plan
- Already briefed: NSF Director and Deputy Director, Office of Science and Technology Policy, OMB, staff of two Senate subcommittees plus personal Senate staff, staff of two House subcommittees, AAS leadership and public policy group, Committee on Astronomy and Astrophysics, managing organizations for national observatories, National Observatory Directors
- Briefings to come: Astronomy and Astrophysics Advisory Committee (tomorrow), Division of Planetary Sciences (October 16 agencies night), Department Chairs (November 3), community webinar (tentatively October 4), AAS Town Hall (January), ...