

NSF Division of Astronomical Sciences Program Update

AAAC

May 8, 2008

Craig Foltz, Acting Director, AST



Topics

1. Changes in AST Management
2. AST Committee of Visitors Report
3. FY 2008 Budget Situation
4. FY 2009 Budget Request
5. FY 2010 Budget Preparation
6. 2010 Decadal Survey



Changes in AST

- On April 14, Wayne Van Citters moved to the MPS Directorate office as the Senior Advisor for Facilities Planning and Management.
- Craig Foltz assumed the position of Acting Director for AST.
- Applications opened for Division Director on May 2; will close on June 28.
- “Beat the bushes” committee constituted.
- Names of potential candidates can be brought to the attention of Morris Aizenman (maizenma@nsf.gov).



AST Committee of Visitors

- Triennial review of programs, processes, planning
 - Co-chairs John Carlstrom & Bruce Margon
- Major observations and conclusions
 - AST is doing a good job, ‘continues to aggressively implement the community’s goals while coping with ... fiscal realities..’
 - Support for Senior Review, its recommendations, and progress on its implementation
 - Recognized and commended AST role in ‘initiating and nurturing interagency collaborations.’
 - ‘Proposal evaluation process has been handled ... thoroughly, carefully and professionally, with remarkably good scientific judgment across the board.’



AST Committee of Visitors

- Major Recommendations
 - No suggestions for fundamental changes in direction of procedures or planning, suggestions for changes to optimize use of existing constrained resources.
 - Additional staffing is required.
 - Lack of travel funds impacts ability to exercise oversight, maintain contact with the community and currency in science.
 - Consider moving Electromagnetic Spectrum Management to MPS office (or higher) to raise visibility and evidence commitment to the global community.



FY 2008 Current Plan

- AST up by 1.15% or \$2.47M (total of \$217.86M vs. request of \$232.97M)
- All facilities held flat (except +\$2M to NRAO for ALMA operations)
- What we can't do:
 - Begin implementation of senior review recommendations for NOAO, NSO, URO's
 - Increases in research and instrumentation grants programs, TSIP or Adaptive Optics Development Program
 - New program to support instrumentation career development (AST's implementation of MPS ACI fellows)
- **But** language says that AST facilities must be funded at 2008 Request level (increase of ~\$6M)
- Current plan still not approved
- ~\$4M uncertainty in AST budget remains



FY 2009 Request

- AST Overall up 14.8% (\$32.15M) to \$250.01 M
- Concerns
 - Change in administration
 - Magnitude of requested increase - unrealistic
 - Future and focus of ACI or America COMPETES Act - AST doesn't fit in current focus.
 - How will Congress look at MREFC change?
- Under a continuing resolution or current services model for at least most of FY 2009
 - How will we handle the ALMA operations ramp?
 - Impact on grants programs?
 - No new starts



FY 2010 Preparations

- Budget will be prepared by the new administration.
- Normal budget preparation process cancelled by OMB in early April
 - See Memorandum No. 08-17 -- Requirements for the FY 2010 Budget Process: <http://www.whitehouse.gov/omb/memoranda/fy2008/m08-17.pdf>
 - No budgets will be submitted in September
- Interactions with transition team to begin in the late fall.
- Expect budget calls in January 2008.
- It will be a busy January & February.



Planning for the Next Decadal Survey

- NSF, NASA, DOE working closely in coordinating dialog with NRC
 - Agencies jointly reviewed proposal
 - Several meetings and exchanges over the past months to address comments of proposal reviewers and agency concerns
 - Early April arrived at statement of task

 - Agreed key changes are broad community input, inclusion of unrealized projects, independent cost reviews, clear criteria for prioritization and ‘trip wires’, formulating recommendations within budget scenarios
- All agencies have initiated funding actions

Backups Follow



Planning for the Next Decadal Survey

Advanced Technology Solar Telescope (ATST) Status

- Final EIS being edited, expect publication late spring
- NSF will issue a record of decision based on EIS
- Consultations under the National Historic Preservation Act are ongoing. Result will be an MOU signed by consulting parties.
- Application for Conservation District Use Permit (six month process normally)
- Consultations with the FAA and National Park Service continue.
- Baseline review planned for mid-2009.

- Late stage design and development in MREFC account in FY 2009. New use of MREFC. Not a construction start.

- Timescale for initiating construction uncertain.



Planning for the Next Decadal Survey

Large Synoptic Survey Telescope (LSST) Status

- Continuing D&D funding from AST
- Project has received approximately \$55M of private contributions
- DOE supporting design and development of the camera
- NSF conducted Conceptual Design Review in November 2007
- We expect this to be a joint NSF/DOE project, so inclusion of LSST in P5's roadmap is crucial to DOE's and NSF's planning
- Decadal Survey recommendation is important



Planning for the Next Decadal Survey

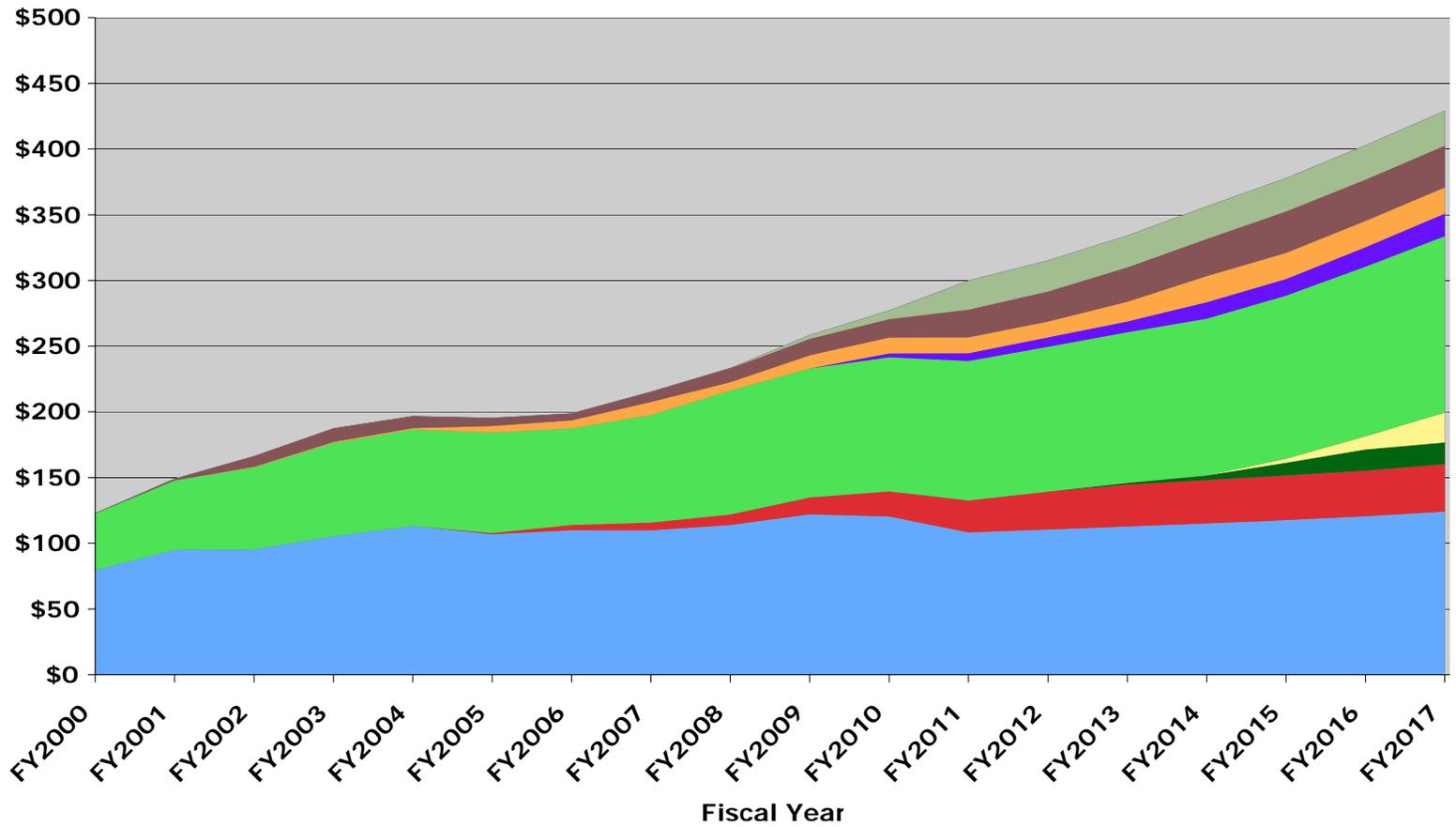
Giant Segmented Mirror Telescope (GSMT) Status

- NSF/AST continues to fund both TMT and GMT projects at total of \$5M per year
- Private and university contributions to both TMT and GMT far exceed AST's ability to support.
- Continuing dialog with both TMT and GMT
- Decadal Survey recommendation is important



AST budget components with grow

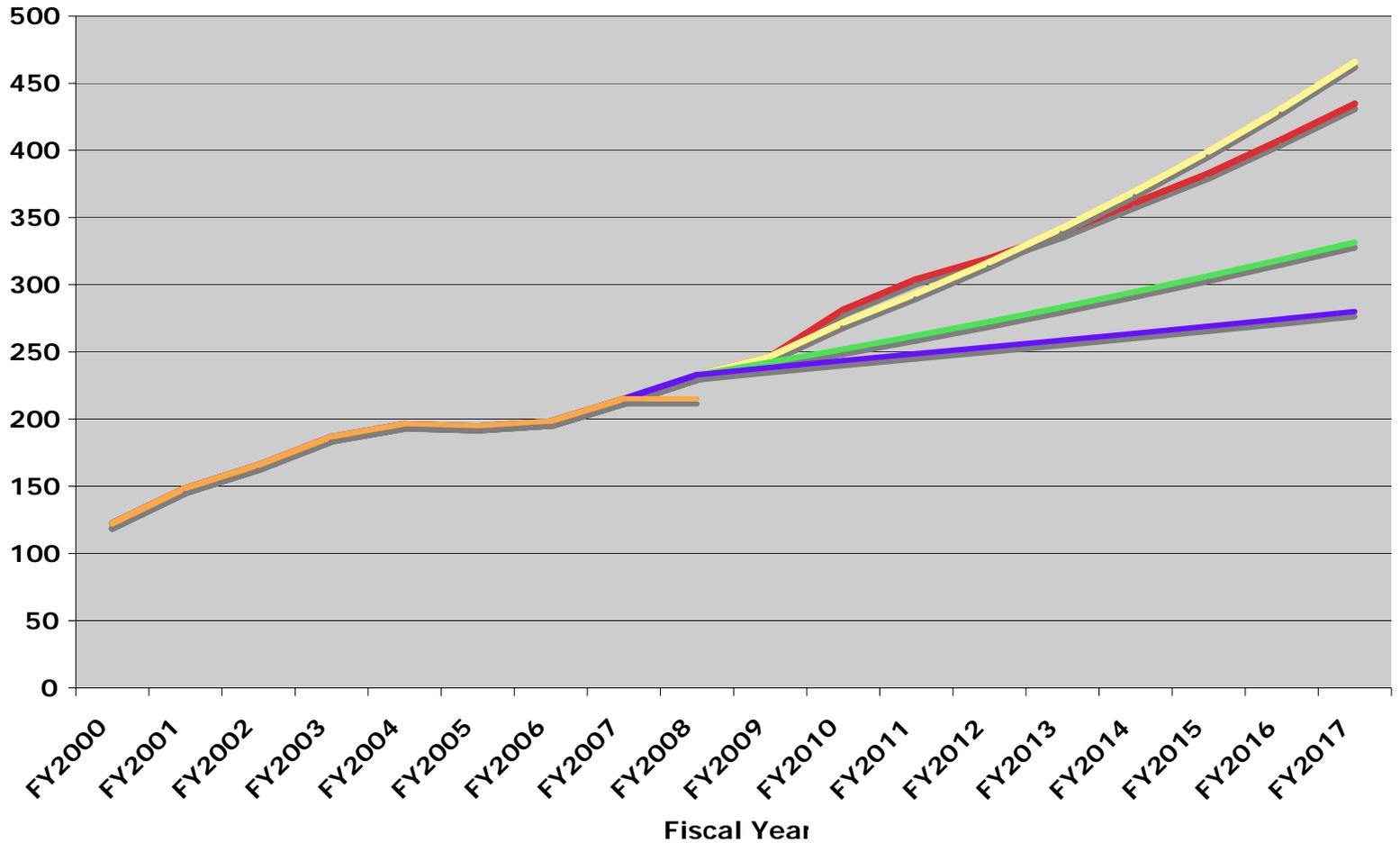
- Base facilities ops
- New large facility ops
- R&D future facilities
- ALMA ops
- Research & Instr grants (4%)
- mid-scale, small decadal survey
- ATST ops
- Future facilities grants
- SR reinvestment





AST budget projection

- Actual+ survey (4% grants)
- 8% budget growth
- 4% budget growth
- Inflationary budget growth
- Actual with '08 enacted





Planning for the Next Decadal Survey

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FY 2008 Budget Request

Request for AST \$232.97M (FY2007 + 8.3% or \$17.9M)

- Facilities base operations budgets began to show impact of Senior Review recommendations
 - NOAO + \$2.3M for reinvestment
 - NSO + \$1.3M for ATST
 - NRAO + \$2M for ALMA ops
 - NAIC base reduction, hidden by termination costs and necessary maintenance
- Increases for:
 - TSIP (\$5M, up \$1M)
 - Research, instrumentation grants programs
 - New programs for instrumentation fellowships, partnerships for broadening participation
- GSMT; AODP continue at FY07 levels



FY 2009 Request

- AST Overall up 14.8% (\$32.15M) to \$250.01 M
- Grants programs
 - CDI: + \$2.0M
 - Initiate instrumentation fellowships program (ACI fellows)
 - Start of Mid-scale activity: \$3.0M
 - Start of 'SR reinvestment': \$3.0M
 - Healthy increases (10-20%) across all programs - AAG, ATI, CAREER, ESP



FY 2009 Request

- Facilities:
 - NRAO: \$61.56M - ALMA ramp up
 - NAIC: \$9.60M - planned ramp down
 - NOAO + NSO: \$36.83M
 - ATST moves to MREFC at \$2.5M
 - Gemini: \$22.0M - continue Aspen instrumentation

 - URO's: \$10.0M (up from \$9M)
 - TSIP: \$5.0M (up from \$4M)
 - AODP: \$1.5M (restored)



FY 2009 Request

Career Opportunities in Astronomical Instrumentation

- Designed to support professional development of instrumentalists, particularly at critical career stages
- Supports student, postdoctoral and/or early-career faculty experiences to provide coherent training curriculum in instrument design, development, fabrication and management
- Emphasizes professional skills development necessary to manage large, complex instrumentation projects
- Encourages partnerships with industry, private observatories and FFRDCs

Program solicitation anticipated for FY 2009?