NSF AST Update

AAAC Meeting

 February 12, 2013 

Jim Ulvestad, NSF MPS/AST

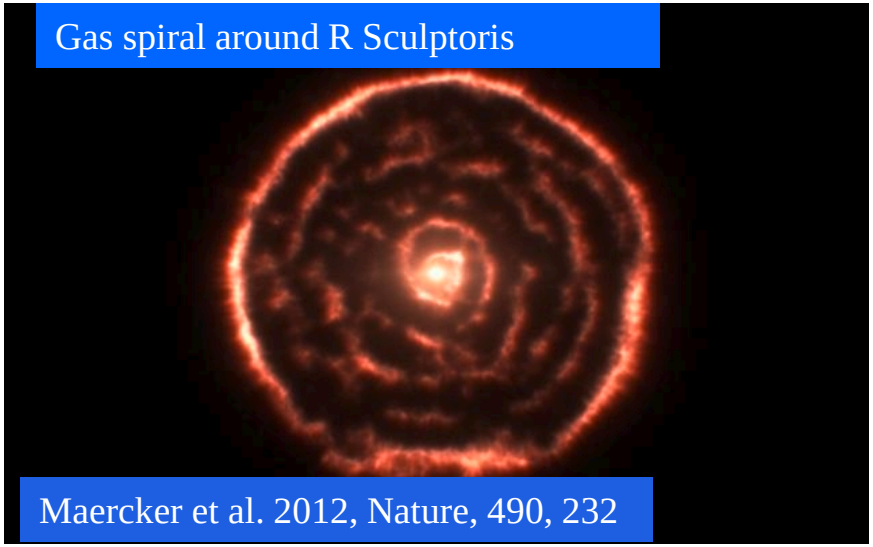
Outline

- Science Capabilities
- Staff and Program Updates
- Budget Outlook
- Interagency Activities
- Questions/Discussion

ALMA Status

- 85% of Cycle 0 observations completed
- 196 high-priority projects selected from 1133 Cycle 1 proposals
- 66/66 antennas in Chile; 58 accepted
- Inauguration in March, 2013


Last of 25 NA antennas accepted


Gas spiral around R Sculptoris

Maercker et al. 2012, Nature, 490, 232

ATST Ground-Breaking, Nov. 2012

NSF Leadership Changes

- NSF Director Suresh leaving in March to become President of Carnegie Mellon University
  - No information yet about replacement or Acting Director
- Dr. Fleming Crim (from University of Wisconsin) took over last month, as Assistant Director for Mathematical and Physical Sciences Directorate
  - Dr. Celeste Rohlfing returns to Deputy Assistant Director position

AST Staff Changes

- Substantial recent turnover, due to end of rotator terms (Scott Fisher, Don Terndrup, soon Katharina Lodders) and retirements (Tom Gergely, Jeff Pier)
- New hires—Federal employees
  - Pat Knezek, Deputy Division Director, starts in March, replacing Dana Lehr (Acting DDD)
  - Glen Langston, replacing Tom Gergely in spectrum management
  - Ilana Harrus, working in grants program
- New rotator—Dan Evans, Education and Special Programs
- Vern Pankonin has taken over NOAO program management from Jeff Pier

Office of the Division Director

Jim Ulvestad
Division Director

Dana Lehr
Acting DDD

Vernon Pankonin
Senior Advisor

Elizabeth Pentecost
Project Manager

Donna O'Malley
Operations Specialist

Administrative Unit

Craig McClure
Program Support Manager

Heidi Griggs
Admin Support Assistant

Anton Jiggetts
Program Specialist

Ann Butler
Program Assistant

Diana Phan
Program Specialist

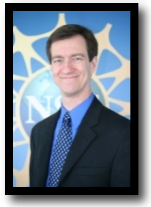
Individual Investigator Programs
Ed Ajhar, Lead

Nigel Sharp
Interdisciplinary Programs
Extragalactic Astronomy & Cosmology (EXC)

Maria Womack
Stellar Astronomy & Astrophysics (SAA)

Ilana Harrus SAA
(arrives Feb 11)

Katharina Lodders
Galactic Astronomy
(leaves Feb 28)



Thomas Statler
Planetary Astronomy
Extragalactic Astronomy & Cosmology
Big Data/CIF21

Edward Ajhar
AAPF ; EXC

RIchard Barvainis
Extragalactic Astronomy & Cosmology

Dan Evans, Education & Special Programs, EXC

Eric Bloemhof
Advanced Technologies and Instrumentation (ATI)

Gary Schmidt ATI

Mid-Scale Projects & Infrastructure
Rich Barvainis, Lead

Richard Barvainis
Mid-Scale Projects/ Instrumentation;
University Radio Observatories

Phillip Puxley
CCAT

Gary Schmidt
MRI

Nigel Sharp
Cyberinfrastructure; VAO

Tomas Gergely (P/T)

Andrew Clegg

Glen Langston (arrives Feb 11)
Electromagnetic Spectrum; EARS

Facilities & MREFC Project Development
Jim Ulvestad, Lead

Craig Foltz
National Solar Observatory;
Advanced Technology Solar Telescope

Philip Puxley

Dana Lehr

ALMA (PP); NRAO (PP, DL)

Vernon Pankonin
National Optical Astronomy Observatory;
Thirty Meter Telescope

Gary Schmidt
Gemini Observatory

Nigel Sharp
Large Synoptic Survey Telescope

Eric Bloemhof
Arecibo

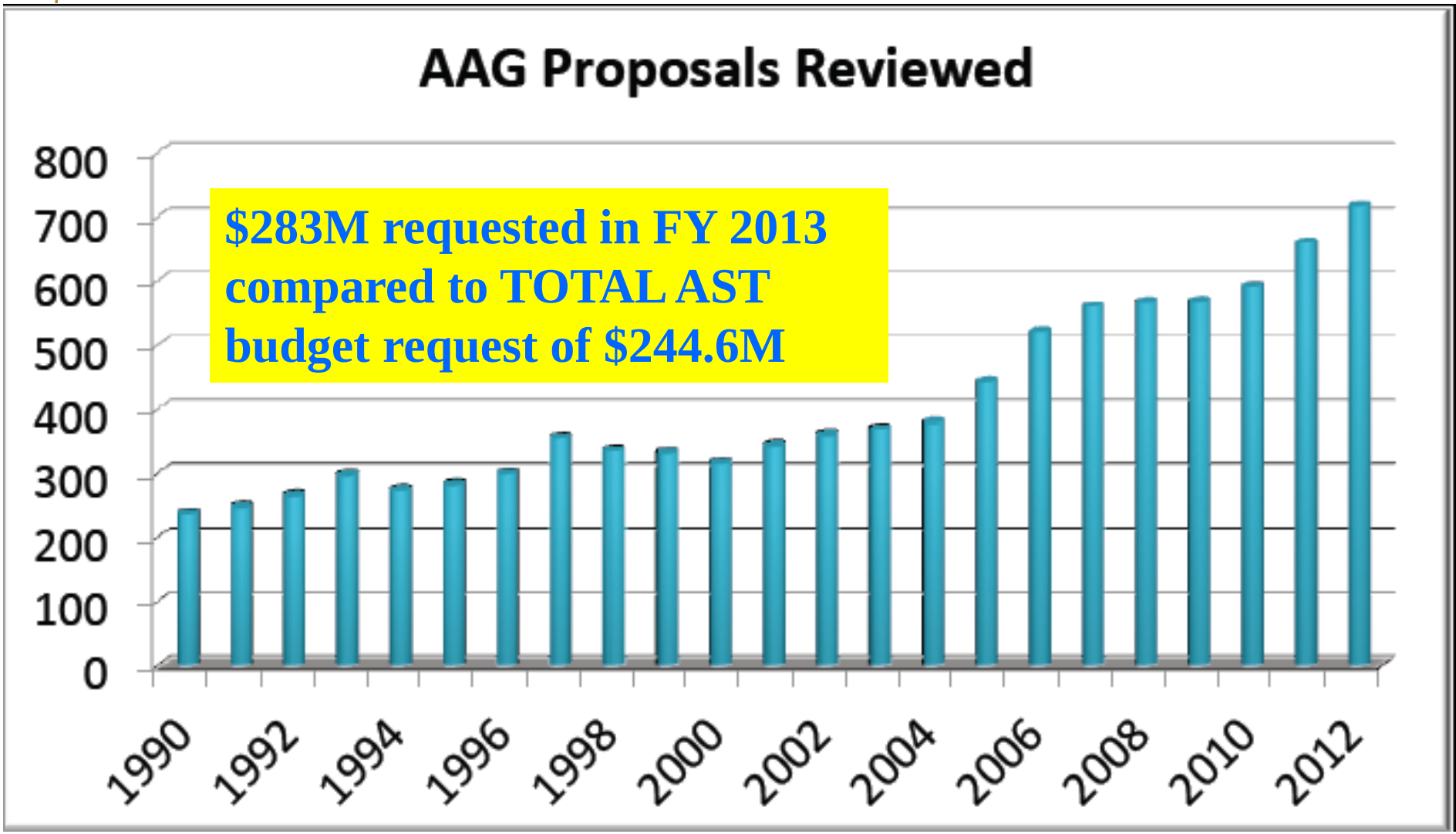
Proposal/Award Information

- New Grants Proposal Guide, NSF 13-1, effective January 14
  - New implementation of merit-review criteria, including significant modifications to FastLane

- Joint Theoretical and Computational Astrophysics Network (TCAN) with NASA, proposals due February 14 (NSF 13-512; contact Tom Statler for information)

- MRI deadline February 21 (see NSF 13-517)

- All project reporting transfers from FastLane to Research.gov in March 2013


AAG Proposals Reviewed
$283M requested in FY 2013 compared to TOTAL AST budget request of $244.6M
800
700
600
500
400
300
200
100
0
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012

Budget Outlook

- We have no inside information about the resolution of the FY13 budget or about when the FY14 budget request will be released

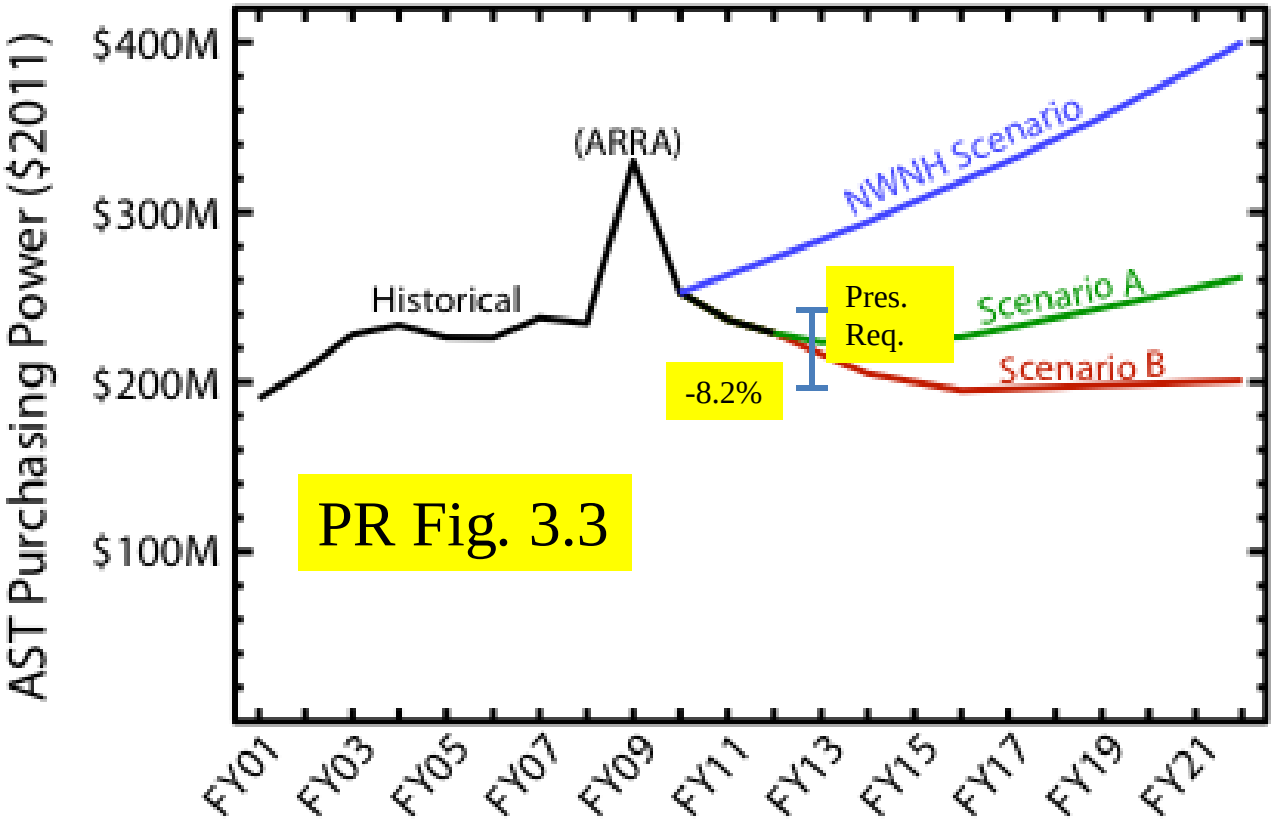
- Agencies have been given direction on planning for sequestration by the Office of Management and Budget, in OMB Memo M-13-03 (January 14, 2013)
  - March 1 deadline for resolving sequestration
- Continuing Resolution expires on March 27

- We probably read some of the same newspapers and websites that you do (and they are far from being consistent with one another)

FY 2013 Budget Language

- Senate Appropriations Committee report of FY 2013 bill
  - AST instructions occupy 0.75-1.0 of 2.1 pages of instructions about Research and Related Activities
  - "The Committee recommends the full budget request of $244,550,000 for astronomical sciences in fiscal year 2013, of which $161,890,000 shall be used for infrastructure."
    - President's infrastructure request was $154,890,000.
    - This shift of $7.0M would result in ~20-25 fewer individual investigator awards in FY 2013 (norm of ~120), lowering grant funding rate by about 3 percentage points, or reduction of 60-70 awards if the shift continues for 3 years
    - Would eliminate possibility of budget wedge for midscale
- House Committee report does not contain similar language
- Outcome depends on conference committee report if an FY 2013 Appropriation passes

Portfolio Review Budget Scenarios



- Committee Figure 3.3 is annotated here by budget ranges for FY13, ranging from the President's Request level to an 8.2% reduction (~$20M) from FY12

Recent AST budget requests and appropriations:

Year	FY11	FY12	FY13	FY14
Request	$251.8M	$249.1M	$244.6M	???
Approp.	$236.8M	$234.6M	???	???

Includes $12M EARS

Activities Involving NASA or DOE

- NSF/DOE
  - LSST is still in the NSF queue awaiting a future budget request for construction
  - Mid-Scale Dark Energy Spectroscopic Instrument
    - Active and regular discussions with DOE regarding the possibility of hosting MS-DESI on an NSF telescope
    - Supportive of timescale leading to CD-1 in late FY 2013
  - Dark Energy Camera in commissioning; survey starts late in CY 2013
  - SDSS-III/BOSS, VERITAS, AUGER, South Pole Telescope, HAWC
- NSF/NASA
  - TCAN deadline on February 14 (see Hertz talk)
  - Arecibo, co-fund with NASA/Planetary
  - Virtual Astronomical Observatory, co-fund with Astrophysics
  - McMurdo Long Duration Balloon Facility, NSF infrastructure

The AAAC Annual Report

- Congress and agencies are paying attention to major budget issues, not so much to specific issues that are of great interest to AAAC
  → A long report with discussion of many key science areas and issues is unlikely to be read carefully
- Crisp, focused report, based on achievable recommendations and choices, may be most useful
- Given the large uncertainty in the budget, recommendations and guidance on principles and key choices may be most important
  - Recommendations that are dependent on specific budget levels or scenarios may not be actionable