

CAA Report

2 November 2017

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CAA Co-Chairs

CAA reports to the BPA and the SSB

Disclaimer: These slides represent a personal assessment of the issues discussed by the CAA. This document should not be cited or quoted because the views expressed do not necessarily reflect those of CAA, SSB, BPA, or the NRC.

CAA Membership

Marcia J. Rieke (NAS), Co-Chair, University of Arizona
Steven M. Ritz, Co-Chair, University of California, Santa Cruz
Jeremiah K. Darling, University of Colorado, Boulder
Megan Donahue, Michigan State University
Thomas Greene, NASA Ames Research Center
Lee W. Hartmann, University of Michigan
Vassiliki Kalogera, Northwestern University
Bruce Macintosh, Stanford University
Christopher F. McKee (NAS), University of California, Berkeley
Angela V. Olinto, University of Chicago
Mark M. Phillips, Carnegie Institution for Science
James M. Stone, Princeton University
Alexey Vikhlinin, Harvard-Smithsonian Center for Astrophysics
Eric M. Wilcots, University of Wisconsin, Madison
A. Thomas Young (NAE), Lockheed Martin (Ret.)

Most recent meeting:
October 24-25 2017

[http://sites.nationalacademies.org/BPA/
BPA_048755](http://sites.nationalacademies.org/BPA/BPA_048755)

Summary of Recent Activities

- Report on Small Explorers (SMEX) Opportunities released June 8.
 - A good existence proof that the new Statement of Task works
- An eventful and productive meeting last week:
 - Discussions with Agencies on a variety of topics, including Decadal Survey Timing and Scope. Survey preparation is the main ongoing CAA focus.
 - AAS and AIP community demographics survey data and plans
 - Science talk by committee member Vicki Kalogera on GW170817
 - Gravitational wave studies moving from physics experiments to astronomy/astrophysics observatories
- WFIRST Independent External Technical/ Management/Cost Review (WIETR) Report presentation and discussion.
 - see 1 November CAA report to the SSB

Astro2020 Decadal Survey Planning

- Timing:
 - After careful consideration, “stay the course”, starting survey in December, 2018:
 - JWST launch delay suggests waiting, however all three Agencies prefer no significant delays, for a variety of reasons.
 - Also, NAS can’t run two decadals simultaneously and the Planetary Decadal (early 2020 start) timing cannot change significantly.
- Top-level schedule:
 - 2018 January AAS Town Hall
 - 2018 March Astro 2020 proposal submitted to Agencies
 - Summer/Fall: Science White Paper call issued
 - 2018 December Chair selected
 - 2019 January AAS Town Hall and other Community outreach activities
 - 2020 December Astro 2020 completed and report released

Consultation Group

The Consultation Group (CG) will work closely with National Academies staff by assisting with the drafting of the statement of task and prospectus for the next decadal survey of astronomy and astrophysics, Astro2020. The CG will meet primarily by teleconference but will have the option of holding one in-person meeting in Washington, DC. The CG's work is likely to include interaction with the survey's potential federal government sponsors. A well-developed draft of the survey statement of task and prospectus will be made available to the CAA and the survey's potential sponsors. The CG's work will conclude upon the receipt of funding for the survey from the agencies.

1. Neta Bahcall, NAS Section 12 Chair
2. Alan Dressler, Survey of Surveys Chair, NAS
3. Wendy Freedman, BPA member, NAS
4. Sarah Gibson, CSSP Co-Chair and SSB XCOM member
5. Fiona Harrison, SSB Chair, NAS
6. Chryssa Kouveliotou, SSB XCOM member, NAS
7. Avi Loeb, BPA Vice-Chair
8. Marcia Rieke, CAA Co-Chair, NAS
9. Steve Ritz, CAA Co-Chair, BPA member
10. David Van Wie, ASEB member, NAE

Decadal Survey Preparatory Activities

- The CAA continues to explore which parts of the task could be done before the formal start of the survey in Dec 2018
 - Tension between wanting to get some work done versus constraining the Survey chair and process
- Activities underway:
 - Engagement with community via AAS Town Halls and other activities, including “Demystifying the Process” discussions.
 - Consultation Group
- Additional pre-survey activities:
 - Plan to issue a call for Science White Papers such that the papers will be available to the Survey Committee early in the process but not so early as to be dated
 - Meeting of Experts on the Cost and Technical Evaluation (CATE) process, spring 2018
 - Providing some specifics about CATE prior to the start of the Survey will help minimize misunderstandings and enable projects to prepare effectively and more uniformly. Processes for feedback from the projects, to help ensure accuracy and fairness, can also be discussed in advance.
 - Early-career colleague engagement events and other outreach
- Connections between exoplanets and astrobiology will be scoped out by ongoing Academies studies

Some Ongoing Topics (I)

- How to handle desire for State-of-the-Profession activities before and/or during the survey
 - Good discussion with AAS/AIP Demographics survey expert.
 - A CAA subcommittee is developing a plan.
- Scope of the survey
 - Ground-based GW astronomy: recent neutron star merger highlights that astronomers are deeply engaged with gravitational wave discoveries.
 - Science overlap with agency programs beyond the formal scope of the Survey.
 - Continued/increasing importance of the international context.
- Engagement with philanthropic organizations
- Survey structure and timing of the chair selection
- Engaging early-career colleagues, and other community organizations beyond American Astronomical Society (AAS), especially Divisions of the American Physical Society.

Some Ongoing Topics (II)

- Continuing attention to Mid-decadal Report recommendation:
 - RECOMMENDATION 3-2: The NSF and the National Science Board should consider actions that would preserve the ability of the astronomical community to fully exploit the Foundation's capital investments in ALMA, DKIST, LSST, and other facilities. Without such action, the community will be unable to do so because at current budget levels the anticipated facilities operations costs are not consistent with the program balance that ensures scientific productivity.
- Also concern about the lack of available resources at NSF AST in the Astro2020 Decadal timeframe for new facilities.

Discussion