

<p>Meeting Minutes of the</p> <p>Astronomy and Astrophysics Advisory Committee</p> <p>24 February 2023</p>

Members Attending:

Wenda Cao
 Kyle Dawson (Chair)
 Sarah Hörst
 Alexie Leauthaud
 Nikole Lewis
 Britt Lundgren
 Michael McCarthy (Deputy Chair)
 Ann Zabludoff

Agency Personnel:

Martin Still	NSF-AST	Mark Clampin	NASA
Carrie Black	NSF-AST	Kartik Sheth	NASA
James Neff	NSF-AST	Hashima Hasan	NASA
Craig McClure	NSF-AST	Manuel Bautista	NASA
Glen Langston	NSF-AST	Natasha Pinol	NASA
Allison Farrow	NSF-AST		
Nigel Sharp	NSF-AST		
Ashley VanderLey	NSF-AST	Kathy Turner	DOE-HEP
Jonathan Williams	NSF-AST	Bryan Field	DOE-HEP
Renee Adonteng	NSF-AST	Theodore Levine	DOE-SC
Alison Peck	NSF-AST		
Ed Ajhar	NSF-AST	Jennifer Ciezak	US Army-Research Lab
Chris Davis	NSF-AST		
Harshal Gupta	NSF-AST	Elena Hillenburg	NSF-MEM
James Higdon	NSF-AST	Michael Thomas	NSF-MEM
Hans Krimm	NSF-AST	Vladimir Papitashvili	NSF-OPP
Chris Smith	NSF-MPS	Patrick Smith	NSF-OPP

Others:

Francesco Bordi, The Aerospace Corp.
 Etienne Dauvergne, ESA
 Richard Rogers, Stellar Solutions, Inc.
 Linda Karanian, Karanian Aerospace Consulting
 Mayra Montrose, L3Harris
 Jeremy Fehrenbacher, MOOG

Kate Von Holle, University of Chicago
 James Lochner, USRA
 John Matthews, University of Utah
 Lee Curtis, AURA
 James Haselman, Retired
 Devrie Intriligator, Carmel Research Center, Inc.

FEBRUARY 24, 2023

Welcome, Opening Remarks and Introductions – Carrie Black, NSF¹

1205 ET: Carrie Black (NSF) called the meeting to order and welcomed all attendees. She shared her slides. She moved to discuss and approve the meeting minutes from the January 2023 AAAC meeting. Kyle Dawson asked for a motion to approve minutes, received a motion from Michael McCarthy, and a second, and minutes were approved.

Carrie Black mentioned potential dates and meeting schedule for the next AAAC meeting in June 2023.

Michael McCarthy asked about the typical topics of discussion for the June meeting in relation to the overall annual committee process. Carrie Black responded that the June meeting is for the Committee to report out on their findings and for Agencies to give individual updates. Kyle Dawson added that the Agencies usually give their initial responses to the report findings. Also, the Committee discusses plans for the following year and the transition of the Chair position. Carrie and Kyle discussed that the report out may only include selected items to reduce time needed. Kyle would still like to hear a report out from the Flatiron Workshop. He also would like to hear from NOIRLAB on publicly available material regarding satellite constellations as well as the from the Lab Astrophysics Taskforce.

Martin Still (NSF) recommended that the Committee report format be used to guide discussion at the June meeting regarding Agency responses. The intent is not for substantive feedback from agencies immediately, but to hear their initial responses. Carrie suggested adjusting the meeting length to cover priority items. Kyle indicated his priority was to hear from the Lab Astrophysics Taskforce and Flatiron close behind in importance. He noted that the AAS is June 4-8, 2023. Mark Clampin noted that NASA also has a FACA meeting to schedule between AAS and a NASA launch in July.

Kyle Dawson proposed penciling in June 1-2, 2023 as a tentative date for the June AAAC meeting, but mid-month may also be considered based on member availability.

Update on NSF Division of Astronomical Sciences (AST) – James Neff²

Jim Neff, MPS/AST Deputy Division Director (NSF) presented items that included ASTRO2020; Committee of Visitors (COV) planning; Senior Review, MPS Advisory Committee; AST community workshops; Instrumentation and Technology; Early Career and Broadening Participation Programs; New Partnerships and Centers; NOIRLab, and Large Facilities.

Wenda Cao asked if DKIST has any plans to coordinate with NASA for a satellite mission for the coming 2024 solar maximum. Carrie Black responded that an MOU is being developed.

Kyle Dawson asked how AST took in recommendations from multiple advisory committees when the committees aren't coordinating with one another. Jim Neff replied that each committee has an independent charter, but he would look into how coordination might be best accomplished.

Update on Science Mission Directorate, NASA Headquarters – Mark Clampin³

Mark Clampin, Astrophysics Division Director (NASA) presented on the James Webb Space Telescope; Astro2020 Decadal Survey; and the Astrophysics Fleet of Satellites. Kyle Dawson asked how JWST is meeting its specification requirements. Mark Clampin replied it is doing quite well and that there will be several published papers available soon on its performance.

Update on DOE Office of High Energy Physics (HEP) – Kathy Turner⁴

Kathy Turner provided an update on the Cosmic Frontier - Experimental Program, where naturally occurring data is used to study the nature of the universe; the Dark Energy Survey (DES); Dark Energy Spectroscopic Instrument (DESI) Experiment; Vera C. Rubin Observatory; Integration, Test and commissioning of the LSST camera; Dark Energy Science Collaboration (DESC); Astro2020 Science Theme; and other HEP initiatives and strategic planning process.

Michael McCarthy asked how DOE is interacting with NSF regarding Antarctica. Kathy Turner replied there are meetings at the Program Officer level on both sides, and now regular meetings with management on each side including Jim Ulvestad (NSF), about once per month.

Kyle Dawson asked that slides from Agency update presentations be posted publicly as soon as possible.

Kyle Dawson asked if anyone had anything they would like to discuss, or have general questions about writing the annual report. Michael McCarthy asked if other committee members had seen the draft report that Kyle has sent around; Michael suggested Kyle reiterate the areas of emphasis for the report. Wenda Cao suggests the report be more focused. Kyle agreed and reiterated the key areas of last year's report. Ann Zabudoff stated she liked how the four important items are highlighted in the draft report, and that there should be a transition between progress made on last year's suggestions tying into this year's report.

Kyle Dawson indicated that the AAAC recommendations go to the Agencies, but the report is read by others outside agencies (e.g. Congress, OSTP). Some of the findings by the AAAC are beyond the control of the agencies. Martin Still cautioned that the report not be drafted as a lobbying document; Kyle agreed but indicated there should be a way to balance those competing factors.

Nikole Lewis asked how the Committee helps to coordinate recommendations across agencies? Kyle would like to know more about the MPSAC recommendations; Nikole agreed but wants to make sure the AAAC recommendations are not overlooked.

Kyle Dawson stated items 2-4 are South Pole infrastructure, demographics, & dark skies. Added Climate Change with a question mark added.

Michael McCarthy commented that this committee could emphasize that collaboration and coordination is key in syncing ELTs and Polar.

Glen Langston (NSF) made a comment that large projects are difficult to get out the door of NSF due to the disparity of funding between the agencies.

Kyle Dawson transitioned to the demographics topic stating that this topic transcends the individual agencies and believes that OSTP should manage this topic. The Challenge is how to word the recommendation in the report. Ann Zabudoff emphasized that without coordination, resources will be

wasted; coordination sooner than later is preferred. Agencies should make themselves aware of the discussions in government about the minimum set of data to collect in this area.

Kyle Dawson asked if this topic should remain as a high-level bullet point?

Britt Lundgren pointed out that OSTP has published topical information along this line and provides a link: [Science and Society - OSTP - The White House](#)

Ann Zabudoff was hesitant to take this topic off the high-level table as very important because it is not yet solved. The AAAC should keep this topic at the forefront and let agencies know it is important.

Kyle transitioned to the Dark Skies topic. He believes it belongs in the Executive Summary. Britt Lundgren believes this topic is particularly urgent.

Ashley Vanderley (NSF) added additional information to the importance of Dark Skies. Four key areas are the National Radio Dynamic Zone; National Center for Spectrum Management; Integrative Research; and Workforce Development. Kyle added that next year's addition to the AAAC should include someone with expertise in this area (Dark Skies).

Kyle Dawson is of the opinion that Lab Astro should not be included in the AAAC Executive Summary this year but appear next year after the Task Force has time to work. He asked the group how best to incorporate the climate issue and asked if anything else should be added to the Executive Summary.

Kyle transitions to the agency and science highlights topic on the agenda prior to the scheduled break.

Committee Discussions and Preparations for Annual Report writing.

The remainder of the meeting was dedicated entirely to discussion of the Committee's draft annual report due 15 March. The Committee discussed the report's structure and possible recommendations. The Chair and Vice Chair will collate the changes and create a final draft for Committee approval.

The Chair and Deputy Chair rotation is a discussion for the June meeting.

Meeting adjourns.

Presentations:

- 1) https://nsf.gov/attachments/306557/public/1_Welcome_Charge_Carrie_Black.pdf
- 2) https://nsf.gov/attachments/306557/public/2_NSF_AST_Update_Jim_Neff.pdf
- 3) https://nsf.gov/attachments/306557/public/3_NASA_Astrophysics_Update_Mark_Clampin.pdf
- 4) https://nsf.gov/attachments/306557/public/4_DOE_HEP_Update_Kathy_Turner.pdf