Meeting Minutes of the

Astronomy and Astrophysics Advisory Committee

4 March 2022

Members Attended:

Priyamvada Natarajan (Chair) Stephan Meyer Kyle Dawson (Vice-Chair) Michael McCarthy Wenda Cao Willie Rockward Alexie Leauthaud Deirdre Shoemaker Nancy Chanover Abigail Vieregg Nikole Lewis

Agency Personnel:

Martin Still, NSF-AST Debra Fischer, NSF-AST James Neff, NSF-AST Donna O'Malley, NSF-AST Renee Adonteng, NSF-AST Matt Benaquista, NSF-AST Dave Boboltz, NSF-AST Ashley VanderLey, NSF-AST Glen Langston, NSF-AST Craig McClure, NSF-AST Tanner Abraham, NSF-AST Alison Peck, NSF-AST Jonathan Williams, NSF-AST David Morris, NSF-AST James Higdon, NSF-AST Sarah Higdon, NSF-AST Carrie Black, NSF-AST Andreas Berlind, NSF-AST Andrea Prestwich, NSF-AST Luke Sollitt, NSF-AST Jim Ulvestad, NSF-OD Saul Gonzalez, NSF-MPS Tie Luo, NSF-MPS Derrick Hampton, NSF-DAS Tamim Wessal, NSF-DAS Elena Hillenburg, NSF-DAS

Paul Hertz, NASA Terri Brandt, NASA Eric Smith, NASA Hashima Hasan, NASA Hannah Jang-Condell, NASA Enidia Santiago, NASA

Kathy Turner, DOE-HEP Ted Lavine, DOE-HEP Helmut Marsiske, DOE-HEP Patricia Crumley, DOE

Yi Pei, OMB

Kartik Sheth, OSTP

Others in Attendance:

Rachel O'Connor, Ball Aerospace Marcia Smith, SpacePolicyOnline.com TRÂN NGUYỄN BÍCH PHƯỢNG John Matthews, U Utah Nick Saab, Lewis-Burke Associates LLC Griffin Reinecke, Lewis-Burke Associates LLC Kate Von Holle, U Chicago Matt Malkan, UCLA

Valentin Pillet, NSO Jeff Martoff, Temple U. Charles Lillie, Lillie Consulting LLC Tim Bastian, NRAO James Murday, U Southern California Etienne Dauvergne, ESA

Mayra Montrose, L3Harris Technologies Raha Hakimdavar, Ball Aerospace Joshua Pepper, Lehigh U Abigail Sheffer, NAS Olienka De La O Fernandez, EPCC Nicholas White, George Washington U David Millman, Bell Atlantic Lee Curtis, AURA Sravani Vaddi, Arecibo Observ. James Lochner, USRA Rayan Khan, Cosmic Tribe Jeff Foust, SpaceNews Lamont Di Biasi Irene Klotz, Space.com

12:02 PM ET

Welcome and General Remarks - Martin Still

<u>Martin Still</u>: <u>Slides</u>¹ with Federal Advisory Committee Act (FACA) rules were made available in advance for the Committee's reference. The meeting agenda was constructed to enable the Committee to organize and discuss their upcoming annual report. The chair had a list of discussion topics to share.

<u>Priya Natarajan</u>: Welcomed attendees from the astronomy community. The goal of this meeting is to develop the annual report, referencing the Decadal Survey and its ambitious and detailed recommendations. Areas highlighted for discussion included a description of the report format, uniform federal proposer demographic data collection, and issues related to climate change and sustainability.

12:08 ET NSF/AST Programs and Budget Update - Debra Fischer

<u>Presented</u>² on updates from the NSF/AST division, observing facilities, science, and programs to address the STEM pipeline since the last AAAC meeting in January.

12:23 ET NASA/APD Programs and Budget Update - Paul Hertz

Presented³ on NASA mission updates, and astrophysics research programs.

12:38 ET DOE/HEP Programs and Budget Update – Kathy Turner

Presented⁴ updates since last meeting on budget and projects.

12:59 ET Committee Discussions and Preparations for Annual Report Writing

<u>Priya Natarajan</u> thanked the presenters for their updates. The Committee transitioned to a discussion session for the Committee's annual report. A draft document was available online to committee members and the format for the report was briefly reviewed. The Committee was reminded that today's meeting was to allow discussion of report themes and to make assignments for writing sections.

Alexie Leauthaud asked if the Committee needed to stay within the recommendations of the Decadal Survey. Kyle Dawson confirmed that the Committee's charge is to recommend actionable steps to the Agencies. The recommendations could also be prioritized by importance.

<u>Priya</u> commented that with a 10-year window in mind, the Committee should stress the short-term priorities and focus on implementation centered on year-1 immediate actions.

<u>Michael McCarthy</u> expressed an interest in expanding on the point, "to what extent is it better for this Committee to prioritize a small number of key developments in the Decadal as opposed to reiterating prior recommendations?" He did not want to minimize other recommendations contained in the Decadal.

<u>Priya</u> suggested the meeting transition to the work that the agencies have started doing in proposer data collection and allow them to give the Committee a glimpse of the data that they can currently share.

13:15 ET DOE, NASA & NSF comments on Astro2020 Recommendations

<u>Presentation</u>⁵ by Kathy Turner: Path Forward for Addressing Demographics Recommendations.

Questions from committee members:

Kyle Dawson asked if Agencies would later charge the committee to form a task force to further follow up on these demographic items? Paul Hertz responded that he is looking for targeted advice to the Agencies and would want the Committee to advise on the best path forward and identify why each Agency is not able to collect more complete data like the National Institute of Health (NIH).

Priya Natarajan commented that in the absence of data yet to be delivered, it is difficult for the Committee to see what the task force might be charged to do. One area would be to better understand the NIH model to enhance work of all 3 agencies.

Michael McCarthy asked if the demographic data was available for merit review panelists? Paul Hertz suggested it be added to the Committee's spreadsheet.

Wenda Cao commented that security guidance has been issued for federal agencies to coordinate and standardize the collection of data. How might this effect the collection of demographic data? Paul responded that nothing yet has come from that guidance.

Deidre Shoemaker recommended to the Committee that guidance should be achievable regarding the collection of demographic data and Nancy Chanover recommended that the Committee report closely follow the framework of the Decadal Survey.

Kathy Turner emphasized that the collection of demographic data is now a governmentwide function.

13:47 ET

Paul Hertz: asked the AAAC identify urgent actions.

13:55 ET

Alexie Leauthaud offered 3 principal areas to consider:

- 1. Education.
- 2. Reducing emissions in the profession (travel, etc.).
- 3. Preparing for the future and impact of climate change.

Priya Natarajan concurred with Alexie's 3 points and recommended that the committee keep these points as high priority rather than a rank order.

Martin Still emphasized the deadline for the annual report is March 15th. This is a hard stop in the sense that it is required in the charge to the Committee and in Congressional legislation. In the past that deadline has not always been achieved, but it is crucial to deliver on time.

14:02 ET

15-minute break.

14:17 ET Committee Discussions and Preparations for Annual Report Writing

Priya Natarajan noted that it seemed that the strategy for the annual report is to outline the recommendations and elaborate on the 3 items the committee has identified. As for the data collection demonstrated by the agencies, the outline provided by the agencies for their future presentation of a spreadsheet to the committee for review is agreeable. All were invited to comment. Lab astrophysics was an additional topic added to the list to further develop.

Deidre Shoemaker agreed with Priya's assessment. Kyle Dawson also agreed that the topics highlighted are the focus of the Committee's discussion interests.

Paul Hertz indicated that NASA has augmented their Lab Astro budget as an incremental improvement but have not addressed the Decadal survey for prioritizing and addressing those needs. Peer review is currently used to prioritze, but strategic guidance is needed from the Committee.

Priya indicated that if the Committee was in general agreement of the items to include in the annual report, and access to the online draft for format and editing was available, she suggested that the meeting end early. Martin agreed that the meeting could end early.

Priya proposed a deadline for Tuesday, March 8 to enter draft comments into the report and for all to proofread the draft.

Kyle suggested each agency provide one science highlight to include in the executive summary and Priya agreed that was a good suggestion.

Martin Still wanted to bring to the Committees attention that the next meeting will be in June, and the first meeting of the 2023 committee cycle will be in September.

Kyle Dawson asked about the process for deputy committee chair assignment for next cycle. Kartik Sheth recommended an open and inclusive framework for the selection process.

Priya Natarajan thanked all in attendance, and those from agencies who presented. The meeting was adjourned.

Presentation slides:

- https://www.nsf.gov/attachments/303935/public/1 Welcome Opening Remarks Introductions Mart in Still.pdf
- 2) https://www.nsf.gov/attachments/303935/public/4 NSF AST Program Update Debra Fischer.pdf
- 3) https://www.nsf.gov/attachments/303935/public/2 NASA Program Update Paul Hertz.pdf
- 4) https://www.nsf.gov/attachments/303935/public/3 DOE HEP Program Update Kathy Turner.pdf
- 5) https://www.nsf.gov/attachments/303935/public/5_DOE_NASA_NSF_Astro2020_demographic_reco mmendations Kathy Turner Paul Hertz Debra Fischer.pdf