Meeting Minutes of the

Astronomy and Astrophysics Advisory Committee

6 June 2022

Members Attending:

Priyamvada Natarajan (Chair)
Wenda Cao
Eliza Kempton
Ann Zabludoff
Stephan Meyer
Michael McCarthy
Deirdre Shoemaker
Abigail Vieregg

Agency personnel:

Martin Still, NSF-AST
Harshal Gupta, NSF-AST
James Neff, NSF-AST
Donna O'Malley, NSF-AST
Renee Adonteng, NSF-AST
Ashley VanderLey, NSF-AST
Luca Rizzi, NSF-AST
Nigel Sharp, NSF-AST
Andreas Berlind, NSF-AST
Dave Boboltz, NSF-AST
Ed Ajhar, NSF-AST
Joseph Pesce, NSF-AST
Matt Viau, NSF-AST
Craig McClure, NSF-AST
Tanner Abraham, NSF-AST
James Higdon, NSF-AST
Alison Peck, NSF-AST
Jonathan Williams, NSF-AST
Andrea Prestwich, NSF-AST
David Morris, NSF-AST
Carrie Black, NSF-AST
Sarah Higdon, NSF-AST
Luke Sollitt, NSF-AST
Chris Davis, NSF-AST
Vyacheslav Lukin, NSF-PHY
Chris Smith, NSF-MPS
Saul Gonzalez, NSF-MPS
Linnea Avallone, NSF-OD
Edgar Huertas, NSF-MEM
Paul Hertz, NASA
Hashima Hasan, NASA
Kartik Sheth, NASA
Eric Tollestrup, NASA
Eric Smith, NASA
Dominic Benford, NASA
William Latter, NASA
Antonino Cucchiara, NASA
Mario Perez, NASA
Sandra Cauffman, NASA
James Green, NASA
Stephen Unwin, NASA
Kathy Turner, DOE-HEP
Ted Levine, DOE-HEP
Elgin Leary, DOE-HEP
Kelsie Krafton, DOE
Grace Hu, OMB
Yi Pei, OMB

Others:

Marcia Smith, SpacePolicyOnline.com
Julia Garrett, McAllister & Quinn
Wora Fox, U Oklahoma
Timothy Norton, CfA-Harvard
Etienne Dauvergne, ESA
Ashlee Wilkins, HSST Committee
Steve Kendrick
Murdock Gilchriese, Berkeley Lab
Natalie Roe, Berkeley Lab
John Corlett, Berkeley Lab
Stephen Clark, Spaceflight Now
Liz Kebby-Jones, UK Research & Innovation
Griffin Reinecke, Lewis-Burke Associates LLC
Lamont Di Biasi
Francesco Bordi
Meghan Bartels, Space.com
Stephen Clark, Space.com
Phil Puxley, AURA
Lee Curtis, AURA
Bethany Johns, AAS
Julie Davis, AAS
John Carlstrom, U Chicago
Sylvie Espinasse, ESA
Alexandra Witze, Science News

12:02 EDT

Welcome, Opening Remarks and Introductions – Martin Still, NSF

Martin Still: Federal Advisory Committee Act (FACA) rules are available for the committee's reference on the AAAC website. Matters of conflict of interest were summarized.

Priya Natarajan: Welcomed attendees from the astronomy community. Paul Hertz was invited to present.

12:06 EDT

NASA Program and Budget Update – Paul Hertz

Updates on NASA missions and astrophysics research programs (see slides on the AAAC website).

Following the presentation Paul Hertz reminded the AAAC that he is stepping down this summer after ten years as Director of NASA Astrophysics. Applications for his replacement were due in March. When a new Director is in place, he will move to the front office as an advisor.

Questions & Answers:

Q: Priya Natarajan asks about the status of the DEI questionnaire.

A: Paul deferred to Kartik Sheth, who stated the questions are complete.

Q: Priya Natarajan asked if the committee could see a preview of the questionnaire results.

A: Paul stated that he is happy to supply the results of the DEI questionnaire to the committee. Martin added that NSF AST has the DEI questionnaire completed and does not foresee significant changes from the current draft. Kathy stated that DOE has questions 1-7 complete, but the rest are still in review.

Q: Priya Natarajan asked if the agencies could provide an update on the data.

A: Both Martin and Paul agreed to give an update of the draft data.

Q: Abigail Vieregg asked what the SOFIA team is doing during ramp down, and the level of funding NASA is giving to the process.

A: Paul stated that there is no ramp down in funding until September 30th, 2022. The last science flight must be complete at this time. A closeout plan will pay for more than one year to meet all requirements. SOFIA will require staff to meet these requirements, but they must move on to other work as they complete their jobs. The closeout plan is still in development. Closeout includes the disposition of hardware and documentation. It also requires delivering data, tools, and information for researchers to access the data. NASA must provide the resources for all who flew missions to carry out their investigations. Preservation of the SOFIA science legacy is of primary importance. The harvesting of science data is not complete. Proposals for the ADEP program will fund researchers to analyze the data.

Q: Michael McCarthy asked how out-year budget projections will affect NASA's ambitions in 2023 and beyond.

A: Paul stated NASA's budget does not get inflationary adjustments. NASA must determine if they will prioritize growth in current programs to adjust for inflation or initiate new programs. The current Budget is lower and flatter, which creates challenges. The hard choice of incorporating inflationary growth to projects is necessary.

Q: Ann Zabludoff asked what NASA is doing to meet decadal recommendations and if there is coordination between agencies to meet decadal recommendations.

A: Paul stated that NASA is taking many steps to meet decadal recommendations. Currently, NASA is preparing data archives, a lab-astro study, and reviewing demographics and sexual misconduct treatment. NASA is discussing with NSF how to improve coordination. NASA is developing a next generation alert system to replace old GCN. This system is using similar protocols as Rubin for alerts regarding ground and space observations. Kartik Sheth stated that agencies can work on common practices regarding a host of issues. Martin Still emphasized that archives, pipelines, and artificial intelligence are increasingly important for ground-based facilities. Paul stated that coordinating the grants programs between NSF and NASA is extremely important and ensures that agencies provide the broadest support for the community.

13:00 EDT

DOE Program and Budget Update – Kathy Turner

Kathy Turner opens her presentation by addressing Cosmic Frontier, Org Chart, research, and projects. Kathy's presentation covers topics such as budget guidance, recommendations from the Decadal Survey, P5 Strategic Plan, new initiatives in the Office of Science and High Energy Physics, and DEI.

Salient Points:

- The Dark Energy Spectroscopic Instrument (DESI); DESI had a booth at an education outreach festival at the National Museum of American History in April on making the largest map of the universe,

- Rubin Observatory (NSF and DOE partnership with private and international contributions) Facility Operations will be a 50/50 split between DOE and NSF.

AAAC recommendations will be reported in September meeting.

Priya thanks Kathy for her presentation and opens the floor to questions. (All questions were asked by AAAC chair Priya.)

Q: When will the full deliberation process finish? You have Snowmass and the National Academies doing this other process. Does everything conclude in 2023 or 2024?

A: The project concludes in mid-2023. They need to stick to this plan if they want to be able to inform the 2024 congressional actions and 2025 budget formulation. There were and still are delays due to the pandemic.

Priya asks the committee if there are any other questions. None are raised, and the session adjourned for a regularly scheduled break.

14:00 EDT

NSF Program and Budget Update – Jim Neff

Questions & Answers:

Q: Wenda Cao asked about whether the DKIST project operation budget finalized?

A: Jim Neff stated that there is a cooperative agreement for operations of DKIST through NSO and there are expectations for what that annual funding is going to be and there have been some increases over the last couple of years.

A: Dave Boboltz added that the cooperative agreement extends through FY24, and NSF will be looking towards a new cooperative agreement which would involve a proposal. Until then, costs are set for operations.

Q: Wenda Cao asked NSF to comment on the future plans and budget in 2023 regarding Arecibo.

A: Chris Smith stated that they are in the 5th year of the cooperative agreement. Alison Peck has given Arecibo instructions on what the goals of the 5th year are. The decision beyond the current cooperative agreement is being discussed, in the Office of the Director. Broader Puerto Rican work, the White House is taking care of so NSF can't speak to that.

Q: Antonino Cucchiara (Attendee) asked what the intersection of funds between NSF-AST is and HBCU-UP? referring for example to HBCU-UP Excellence in Research.

A: Jim Neff stated there are no intersection of funds, but the scientific review of HBCU proposals is done in the divisions and the recommendations are managed in the divisions. The HBCU program provides co-funding, which can be as much as 100%

Q. Antonino Cucchiara (Attendee) asked if there are any plans for other similar initiatives with NSF HSI? Essentially, are there separate initiatives for ethnicities?

A: Jim Neff stated NSF has a very strong interest in Puerto Rico and continuing the positive impact that NSF had there through operating Arecibo. NSF has been in contact with the HSI program in various ways. Jim also stated he can't speak for their strategic programs. This is an area where it can be counterproductive to have a division level program that duplicates something that exists somewhere else. It's better for Astronomy to work together and tap into these alternate sources of funding.

Q: Priyamvada Natarajan asked about Arecibo's timeline regarding consultations, discussions, and decision making.

A: Chris Smith stated that NSF wants to develop a future vision as soon as possible but at the moment the Office of the Director is working with external entities as well as internally across the directorates. There are HSI aspects across the directorates in terms of looking at potential impacts in Puerto Rico from not only the EHR, where HSI lives, but also in ENG and GEO. GEO is a partner with Arecibo. NSF is hoping that we get a resolution as soon as possible.

A: Ashley VanderLey commented that NSF is working with NASA to explore the needs for planetary radar, but it will probably take a year to report out.

14:42 EDT

Committee Discussion

Priya Natarajan read out AAAC Report Readout which entails three core recommendations that the committee deemed as high priority. Priya encourages all to read the AAAC report. There are no questions for Priya.

Kartik Sheth, Martin Still, and Kathy Turner shared agency findings on demographic data handling and policy. Jim Neff added comments on NSF's interpretation of the privacy act.

Priya Natarajan: The intent of this readout is so the committee is able to understand the contrast in culture and practice between the agencies.

Martin Still: NSF can only gather data that we have a clear need for. Individuals are informed when data is collected, and decisions are made at the agency-wide level on how to manage data and its collection. All areas of liability are considered in safeguarding the information. NSF is currently working under interim guidance while a permanent policy is being formulated.

Kathy Turner: DOE is working on collecting this same type of information. There are always concerns about people getting upset with too many pointed questions, which helps to explain low response rates on answers to these demographic questions. DOE also must standardize practice across the agency.

Jim Neff: Are other federal agencies treated in different ways on these types of information sharing?

Martin Still: we haven't reached out to those agencies yet.

Kartik Sheth: NASA wants to be forward leaning in this regard but wants to clearly identify what information is shared and why.

Martin Still: NSF is encouraging all proposers to upload a profile in Grants.gov to standardize across agencies and as NSF replaces the Fastlane system.

Kartik Sheth: NASA is not collecting data for missions managed by partners or contractors.

Martin Still: NSF demographic question response rates are low.

Priya Natarajan: asked if NASA collects data for panel reviewers. Kartik says yes, and they try to track and report panel compositions.

Kathy Turner: for anyone who makes an account in PAMS (the DOE proposal submission and review system), demographic data is asked for. Starting in 2023 DOE will actively solicit information about total numbers of individuals working on articular proposals.

Kartik Sheth: NASA's percentage of collection is now above 80% because response is becoming mandatory.

Martin Still: agreed the completeness and accuracy of information is suspect. Binary choices are prohibitive. Need to better communicate what, why, and how we are collecting the data.

Martin Still: AST on its own can't set NSF-wide policy so including other disciplines would help to garner momentum.

Ann Zabludoff: asked question about utilizing the AAS Demographics Committee (https://aas.org/comms/demographics-committee).

Martin Still: said we are trying to get our own house in order before approaching outside organizations.

Kartik Sheth: An issue with AAS statistic is it only includes members.

Priya Natarajan: the AAAC wants to help the agencies respond to the demographic data collection question and wants to allow for uniformity of data collection. The entire community wants to make progress. Opens to questions. There are no questions.

Priya Natarajan: Brought up the topic of identifying a new AAAC Deputy Chair.

Martin Still: commented that 4 members will be rolling off the board after this meeting: Priya, Diedre, Stephen and Nancy. Chair & Deputy chair need to come from the remaining members. Martin will send an email to those members.

Priya Natarajan: wondered if there are orientation materials for new members joining the board.

Martin Still: said there had been a practice run using Gemini Board members. Thinks it worked well. There will be a tutorial on the committee charge and expectations.

Martin Still: said that a September date will be solicited by Allison and Renee. Maybe another agency could host an in-person meeting? Maybe virtual is working well for all. Topics for the 2-day meeting are also needed that will help to focus new board on the 2023 report.

16:01 EDT

Meeting adjourned.