

Instructions: For each SAB Work Plan Topic, please complete the information requested below. Please provide timelines consistent with the SAB providing input to NOAA on the topic within the next 6-15 months. For deliverables, we are looking for information syntheses, issue summaries, etc., with options (stated as options) for NOAA to consider.

SAB Work Plan Topic: Review Improving Data Collection, Management, Dissemination and Decision Support, and Leveraging New Approaches, such as those encompassed in the domain of Artificial Intelligence (AI) and Data Science

Champion(s): Robert L. Grossman and Christopher Lenhardt

Description of Planned Work:

We plan to ask DAARWG to report back to us within six months, on citizen science, the use of advanced analytics and data science techniques for improving data integration.

We plan to ask the HPC WG to report back to us within six months on needs and capabilities related to high performance and high throughput computing, including the use of GPUs, TPUs, etc., and the needs and capabilities related to HPC in the cloud.

We will also discuss these topics with several NOAA leaders, including Ed Kearns (NOAA CDO) and Jeff de la Beaujardiere.

We will prepare an interim and final slide presentation synthesizing and summarizing relevant issues, with associated options. We will also prepare a short report to accompany the final slide presentation.

Deliverables: (Expected Product or Outcome—note that this may, but need not necessarily be, a report; other outcomes could be a memo, slide deck presentation, etc.)

- An interim slide deck summarizing our observations, with options for consideration.
- A final slide deck summarizing our observations, with options for consideration.
- A short 2-4 page report summarizing our observations and associated options for consideration.

Timetable: Include interim steps, such as presentations by NOAA or outside experts before the full SAB, engagement with working groups, or other key steps.

Dec 10, 2018

Tasking of DAARWG and HPC WG

May 15, 2019	DAARWG and HPC WG return interim reports
Jul 1, 2019	Interim slide presentation
July 30, 2019	DAARWG and HPC WG return final reports
Sept 15, 2019	Final slide presentation and report

Participants: SAB Members, NOAA liaisons, NOAA Federal Advisory Committees and Other Collaborators Working on this Topic—Please list and explain.

- We plan to ask DAARWG to report back to us within six months, on citizen science, the use of advanced analytics and data science techniques for improving data integration.
- We plan to ask the HPC WG to report back to us on needs and capabilities related to high performance and high throughput computing, including the use of GPUs, TPUs, etc., and the needs and capabilities related to HPC in the cloud.
- We plan to have phone calls or in person meetings with some NOAA personnel, including: Ed Kearns (NOAA CDO), Jeff de la Beaujardiere (NOAA Enterprise Data Architect), and Otis Brown (CICS Director).

Resources needed: Please describe what is needed

Support from NOAA SAB office to help with scheduling of meetings with NOAA personnel.

Potential Challenges: