



Science Advisory Board

NOAA Priorities & SAB Work Plan Discussion

Presented to the NOAA Science Advisory Board
15 April 2020

NOAA Priorities & SAB Work Plan Discussion

- ❑ NOAA Priorities Summary
- ❑ Observations & Opportunities from Day 1
- ❑ SAB Working Group Taskings
- ❑ Potential Themes from Previous SAB Meetings
- ❑ Summary of discussions – SAB Chair w/ NOAA AAs & SAB WG Chairs
- ❑ Discussion of SAB Work Plan

NOAA Priorities

(to be integrated by SAB into work going forward, particularly in 2020)

- ☐ **Cloud**
- ☐ **Artificial Intelligence (AI)**
- ☐ **Coastal Resilience**
 - Define/understand NOAA responsibility and advise on observations & predictions
- ☐ **How can NOAA leverage innovations in private sector & federal partners?**
- ☐ **What other climate observations should be considered?**
- ☐ **Advise on NOAA activities, partnerships, and technology development:**
 - As follow-up to White House Summit on Ocean and S&T Partnerships
 - Implementation of Presidential Memorandum on Ocean Mapping

NOAA Priorities – Tier 2

Gain knowledge on and discuss:

- NOAA's Space Weather capability, responsibilities, and how they relate to new national emphases on space operations and security
- NOAA's UxS enterprise operation
- NOAA's progress including 'omics data collection in its observation programs
- NOAA strategies to observe noise in Marine Sanctuaries

Review & comment on draft revised Science Integrity Policy, when available

Advise on strategy to mitigate 5G interference with weather satellite water vapor sensors

TSTAP

SAB Mtg #67 Day 1 Observations & Opportunities

- ❑ **Change approach from 2-yr Work Plan – urgency to do things in 2020**
 - What can we do sooner rather than later?
 - Hidden opportunities in Covid19
- ❑ **2 Top NOAA Priorities**
 - Weather Act & EPIC
 - Blue Economy, including coastal resilience
- ❑ **Citizen Science is 5th NOAA Focus Area (strategy being developed)**
- ❑ **SAB should think futuristically – where is most leveraging long-term focus?**
- ❑ **Risk management & acceptance of failure – lessons learned & continuous improvement**
- ❑ **Partnerships**
 - Which are most leveraging?
 - Opportunities to extract value from industry efforts in AI & ML
- ❑ **Modeling**
 - Many approaches – can we reduce redundancy?
 - Advise on building out earth system modeling capability
 - Systems approach – coupling of models

SAB Working Group – Current Taskings

❑ CWG

- Develop white paper on Advancing Earth System Prediction
- Work with EISWG to review NOAA S2S Report

❑ DAARWG

- Transition to Cloud

❑ ESMWG

- Decisionmaking under Deep Uncertainty

❑ EISWG

- Annual report
- Hurricane Forecast Improvement Program – form tiger team
- Work with CWG to review NOAA S2S Report

Potential Themes from Previous SAB Mtgs (Jul & Dec 2019)

- ❑ Enhancing innovation – more structured pathway to innovation?
- ❑ NOS relevant issues – how can SAB incorporate NOS needs?
- ❑ Social sciences – how to weave into emerging technologies?
- ❑ Partnerships and innovation – how to emphasize?
- ❑ Characterization of rapidly changing marine environment – understand what new ocean looks like (obs & modeling)
- ❑ Coastal resilience – rapid changes, changing mix of use, multi-stressor prediction

Summary of Discussions – SAB Chair with NOAA AAs and SAB WG Chairs

How can the SAB be of most value to you going forward?

- NOAA deals with complex systems which change rapidly and require interdisciplinary approaches**
 - What are strategies to improve collaboration?
 - How to adapt to rapid pace of change vs tradition of “holding on” and extensive peer review to being sure
- Advise on strategies to improve effectiveness of partnerships**
- Identify common best practices and lessons learned for interactions among SAB/WGs/NOAA**
 - SAB Chair to schedule meeting with WG Chairs and SAB Liaisons
- How to take advantage of SAB /WG expertise to “look around the corner” and advise on next big changes/pivots in science and technology that will move the agency forward in its ability to carry out its mission**

Discussion of SAB Work Plan

❑ **Goals for SAB Work Plan**

- Be responsive to NOAA leadership request for urgency in 2020
- Maintain focus on critical long-term issues

❑ **2 lists of potential tasks for SAB:**

- Topics for 2020 Response
- Critical Long-Term Topics

❑ **Recommended approach & goals for today**

- Topics for 2020 Response
 - Identify specific tasks
 - Identify RI, team, and NOAA POC
- Critical Long-Term Topics
 - Identify potential topics from integrated list
 - Form SAB Task Group to evaluate and report back at next SAB meeting (7/20)