



National Oceanic and Atmospheric Administration
Science Council

NOAA SCIENCE COUNCIL MEETING

February 21, 2023

11:00 AM to 12:30 PM EST

Google Meet

MEETING MINUTES

ATTENDEES

<p><i>Executive</i> Sarah Kapnick, Chair Steve Thur, Vice Chair Anita Harrington, Exec Sec</p> <p><i>Principal</i> Mitch Goldberg, NESDIS Gary Matlock, OAR Kristen Koch, NMFS Margo Schulze-Haugen, NOS Richard Bandy, NWS (alternate) Randall TeBeest, OMAO</p> <p><i>Advisory</i> Cynthia Decker, Scientific Integrity Committee and NOAA Science Advisory Board Frank Indiviglio, CIO Representative Gary Matlock, LOTMC and RDEC Chair Kelly Goodwin, S&T Synergy Committee Chair Deirdre Clarkin, NLAC Chair Gina Eosco, Social Sciences Committee Chair Lonnie Gonsalves, LOTMC Chair Kelly Wright, TPO Liaison Natasha White, Office of Education Liaison</p>	<p><i>Other Attendees</i> Larry Alade, NMFS Felipe Arzayus, NOS Tyler Christensen, NESDIS Jennifer Fagan-Fry, OAR Joseph Fillingham, OAR Eric Bayler, NESDIS Stephanie Herring, NESDIS James Jenkins, OAR Josh Jankot, NESDIS Eric Kihn, NESDIS Matthew Long, NMFS Terence Lynch, OAR Victoria Moreno, OAR Ishrat Jabin, OAR Abigail Arnold, OAR Michael Morgan, ASEOP Alexandra Neal, OAR Rob Redmon, NESDIS Benjamin Richards, NMFS OMAO PCO Laura Newcomb, OAR Tony LaVoi, OFA Isha Renta, OAR Megan Deehan, OAR Monica Grasso, OFA Michael Liddel, NMFS Fiona Horsfall, OAR Meka Laster, OAR Karen Sender, NMFS Mridula Srinivasan, NMFS Jebb Stewart, OAR Briana Yancy, OAR Annette Hollingshead, OAR</p>
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	Jessica Morgan, NESDIS Debbie Sinmao, OFA
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APPROVAL OF MINUTES AND REVIEW OF ACTION ITEMS

Notify Exec Sec at science.council.execsec@noaa.gov within two weeks of the following meeting if any changes to the minutes are needed. Minutes from the January 17 NOAA Science Council meeting were **approved**.

CHAIR ANNOUNCEMENTS:

- Thank you to everyone who has contributed to the FY25 SRGM. There will be a showstopper review in the near future. The Chair will set aside time for folks to discuss SRGM details with her if necessary.

MINUTES

- Consider the January Science Council meeting minutes **accepted**.

ACTION ITEM REVIEW

- The Exec Sec reviewed all current action items.

BRIEFINGS: Briefing materials are available in the Science Council Meetings 2023 folder on Google Drive.

Readiness Level Training Task Force: Annette Hollingshead, AOML

Informational

LOTMC created task force based on the Readiness Level workshop. The Task force was formed in Dec. 2020. LOTMC provided the following guidance. The 9RLs should not change. Training materials should include 1-2 examples of each of the different R&D project output types. The task force came up with 5 main goals.

Goal 1: Made RL definitions more CLEAR and less ambiguous from one RL to the next.

Goal 2: Developed tools to improve RL understanding.

Goal 3 Develop RL criteria and/or decision trees to help discern project RLs.

Goal 4 Define Transition Types.

Goal 5: Developed potential RL trainings modules. Modules for relevant transition types. The modules have full definitions and examples for each RL type. In the main module we have the background and training modules. The software tool is the most fully developed. Annette runs through the module step by step.

Goal 5B: We suggested further beta testing be done across NOAA scientists. We want to hone in on what is working and what is not. It is important to elevate the distribution and assessment of the RL Training Module. There are prototype modules so it may be better to transition to a web based solution to provide a centralized interactive platform for all of NOAA to use.

Discussion

The Chair asks what the barrier to move this down the line is. Annette responds that there is confusion across the LOs and this training needs to be better circulated. The Vice Chair mentions that a lot of the transitions at NOS were not to operation, they were to application. A lot of the RLs did not make sense in that context. How do we write a transition plan when they skip all those steps? Scientists experience challenges identifying readiness levels. Education and training is key. However, adding the training to CLC would not be very useful for non-feds. NMFS amplifies the Vice Chair's comment about research to applications as it relates to NMFS

transitions. Many (most?) of NMFS transitions are similar to applications, not operations. NMFS would similarly skip RL levels for a good proportion of our work. The SSC Chair responds that social science research *may* in some cases skip RLs too, especially if related to knowledge transfer or applications that are not specific to technology. Social scientists have tried to adapt the RLs to increasing generalizability/external validity. The Chair asks Annette to please let us know what you need on the education front as you figure out how to move this forward. The NSC wants to make sure we are talking about our RLs and externally communicating this to SAB and Congress. We need to be thinking about this. Fiona Horsfall informs the Council that the next Fireside Chat will address many of these issues March 2 @ 12:45.

Annual NOAA AI Executive Committee Briefing: Ben Richards and Rob Redmon

Informational

There is an urgent need for Corporate AI governance. What is trustworthy AI? Accuracy, explainable and interpretable, privacy, reliability, robustness, safety, security. Dr. Morgan is onboarding as AI strategy Executive Champion. The NOAA AI strategy has lofty goals but none have reached full potential due to lack of corporate support within NOAA. Urgency for climate-ready nation, social equity, and blue economy. NCAI has built new partnerships and workshops with 700-1000 participants during 2021 and 2022. The next yearly workshop will be later in 2023 with a focus on benchmarking processes and steps for AI TRL and R2X. NOAA AI Community is almost to 800 people. We have minted and published an AI-Ready Data Standard (NOAA AOP). Reviewed the FY22/CY23 NCAI funded portfolio. Review NOAA current AI application areas by LO. There are a number of barriers to research to operations, most were funding related. There was support for hiring new AI-literate hires, training events, workforce exchange. FY23 opportunities to advance NOAAs Mission using AI – need \$870k continuity, AI-ready, training, workshop, and help exploring the right types of opportunities. Reviewed accomplishments and needs. Discussed NOAAs AI approach and what a corporate or project-level approach would look like. NAIEC would like the Council to endorse AI strategic and goals and the need for corporate governance.

Discussion

The Vice Chairs asks if NAIEC has a model for corporate governance? Rob responds that they do have a governance model for AI strategy which includes an Exec committee that is a cross line office. The Vice reminds the group that NSC does not control resources. While the model may be good for governance, it comes from a different funding source. This isn't an organization that can direct resources. The NAIEC understands this and just wanted to ensure NSC is aware of their request. Does NSC approve of this corporate approach? Here's the [current organizational chart and governance plan](#). NMFS supports corporate governance in concept and will want to be involved before decisions are made regarding resourcing and structure.

ANNOUNCEMENTS

- The next NOAA Science Council meeting is on **March 14th at 10:30am - 12:30pm ET**
- PECASE Update: Exec Sec is working on providing a status update on these awards and the list of nominees the Science Council provided in late 2021.

ACTION ITEMS

Science Council: This spreadsheet lists all current open action items currently assigned to the Council. Additional information for each entry can be found in the original email assigning this task. If you have any questions, please email science.council.execsec@noaa.gov.

Date Assigned or Action Number	Subject Line	Assigned To	Due Date	Status
20220531	State of the Science Factsheet on Emerging Technologies	S&T Synergy Committee	TBD	Drafted and ready for review by the NSC review
20220510-01	Cooperative Research Committee ToR	Group of NSC principals and advisory members	TBD	The group is following up on the motion proposed by Gary Matlock at the May Science Council meeting
20220830	Science Council ToR	NSC/NEP	End of Nov	Approved by NEP, awaiting NEC review
20221104-1	SoS Fact Sheet - Atlantic Hurricanes	OAR - Tom Knutson + team	End of February	Ready for showstopper review
20221104-2	SoS Fact Sheet - Drought	NISDIS	Mid February	Working on updating first draft
20221107	SoS Fact Sheet - Tornadoes	NSSL/NWS	TBD	Working on updating the first draft
20230113	2023 Science Council Work Plan	NSC and POCs	March	The first round of input concluded - 1/13 and awaiting last bit of info before sharing with the NSC
20230117	2022 Accomplishments Report	NSC	End of February	Ready to share with NSC for review
20230209	SAB Nominees	NSC Principals	Feb 16	Review and comment on the list of potential nominees to the SAB
20230214	2022 Science Report	NSC Principals and Advisory members	Feb 28	Showstopper review in progress