NOAA SCIENCE COUNCIL MEETING
February 18th, 2024
10:30 AM - 12:30 PM ET
Google Meet

MEETING MINUTES
ATTENDEES

Executive
Steve Thur, Chair
José Garcia-Rivera, Vice Chair
Miranda Bitting, Exec Sec
Sharon Yaary, Exec Sec

Principal
Sean Corson, NOS
John Cortinas, OAR
Mike Ford, NESDIS
Clay Porch, NMFS
Monica Youngman, NWS
Kurt Zegowitz, OMAO

Advisory
Julie Carruthers, Scientific Integrity Officer
Kelly Goodwin, 'Omics Working Group Chair
Fiona Horsfall, LOTMC Chair
Frank Indiviglio, NOAA Chief Information Officer Rep
Laura Newcomb, RDEC Chair
John McLaughlin, Office of Education Liaison
Casey Stewart, SAB Executive Director
Hendrik Tolman, Council of NOAA Fellows Rep
Jeremy Weirich, NOPP-C Chair

Other Attendees
Abigail Arnold, OAR
Felipe Arzayus, NOS
Elizabeth Berg, OAR
Amy Biggs, OAR
Karin Bucht, OAR
Alexander Bukvich, OAR
Tyler Christensen, NESDIS
Sarah Davis, OAR
Megan Deehan, OAR
Jennifer Fagan-Fry, OAR
Jake Fortune, NESDIS
Josie Galloway, NOS
Lonnie Gonsalves, NOS
Annette Hollingshead, OAR
Claire Huang, NOS
Jan Ising, OAR
Jim Jenkins, OAR
Victoria Kromer, OAR
Michael Kruk, OAR
Victoria Luu, OAR
Terence Lynch, OAR
Jennifer Mahoney, OAR
Annarita Mariotti, OAR
Brooke McHansen, NESDIS
Jahanara Mehreen, NESDIS
Daniel Melendez, HDQ
Nicole Miller, OAR
Jessica Morgan, NESDIS
Krista Nichols, NMFS
Stephanie Oakes, NMFS
Laura Petes, OAR
John Ramsdell, NOS
Rob Redmon, NESDIS
Isha Renta, OAR
Kristen Schepel, OAR
Debbie Sinmao, OFA

Mackenzie Solomon, HDQ
Adrienne Thomas, OFA
Courtney Thompson, NOS
Kenneth Vierra, OAR
Melissa Yencho, NMFS

APPROVAL OF MINUTES AND REVIEW OF ACTION ITEMS
Notify Exec Sec at science.coucil.execsec@noaa.gov within two weeks of the following meeting if any changes to the minutes are needed.

CHAIR ANNOUNCEMENTS:
- This will be John Cortinas's last Science Council meeting, as he will be retiring on Feb. 28th. Starting March 1, Jennifer Mahoney will be the new OAR Science Council principal.
- The S&T Synergy Committee transitioned to a task force in November 2023 in order to focus on creating 12 strategy documents for the Science Council. As these documents have been completed and given the maturity of the individual S&T Focus Areas, the S&T Synergy Task Force has sunsetted. The 'Omics Working Group will continue to provide quarterly written updates and annual briefings to the Science Council.
- The 2024 NOAA Science Report is now live on the Science Council website. Thank you to the Science Report team and everyone who had a hand in putting this important document together.
- CAPT Kurt Zegowitz, the Acting DAA for OMAO, will be the OMAO Science Council principal going forward.

MINUTES
- The January 21st meeting minutes were approved.

ACTION ITEM REVIEW
- There are no current action items.

BRIEFINGS: Briefing materials are available in the 2025 Science Council Meetings folder on Google Drive.

- **LOTMC Transition Reports Proposal:** Lonnie Gonsalves and Josie Galloway
10:35 – 11:00 AM (25 min)
Directional

This presentation was given by Lonnie Gonsalves, the outgoing Line Office Transition Managers Chair, with help from Josie Galloway, the outgoing LOTMC Exec Sec, and Abigail Arnold. The new leadership team of the LOTMC is Fiona Horsfall (Chair) and Katie Geddes (Exec Sec). The LOTMC is tracking and reporting cross-LO final transitions into operations. They have explored how transitions are managed and how the Science Council uses transition reports.

The LOTMC is seeking the green light from the Science Council on a new approach to transition reports. In particular, major changes have been made to readiness levels (RLs). The proposed report scope will be to summarize annual transitions data for NOAA for projects that have transitioned or met their intended end use. The report will have a narrative structure highlighting 4-6 projects (voted on by LOTMC) summarizing project achievements or advancements. Data visualizations for targeted project information will also be included. The group will leverage the NRDD throughout the report process. Instead of providing quarterly reports, the LOTMC will switch to a more comprehensive annual report. The full proposal and spreadsheet template are available, as well as past quarterly reports.

Discussion
The Chair raised the issue of stalled projects and suggested that the LOTMC track and report on them so the Science Council can intervene if necessary. There is an interest in exploring the root causes of these stalls. Lonnie Gonsalves noted that stalled projects are typically caused by funding issues from the offices, but they are not

usually detailed in transition reports. NWS suggested it would be helpful to differentiate between projects stalled due to funding versus other reasons, and that the Science Council could assist in moving high-profile projects forward, even if funding is an issue.

NOS asked if there were examples where the Science Council had influenced the outcome of cross-LO transition projects. The Chair responded that, in the past ~8 years, this hasn't happened, but they should explore potential roles the Science Council can play, particularly in addressing systemic issues. The Chair referenced an earlier program (RTAP) created by Dr. Spinrad, intended to accelerate transitions but was never funded. This program was one of the early efforts to address transition challenges.

The Council of NOAA Fellows Representative pointed out that funding has been a major issue, but the funding structure has evolved to include external sources. Additionally, success metrics have been redefined by the LOTMC, no longer focusing solely on the end stage of transitions, but also considering the success of projects at various readiness levels (RLs). The LOTMC Chair explained that the creation of ORTA (Office of Research Transition and Application) aimed to address stalled transitions, and efforts have been made to bridge gaps by creating umbrella transition projects.

The LOTMC's proposal to move to a comprehensive annual report instead of quarterly reports was discussed. The Chair emphasized the importance of success stories being included in the reports and suggested including a segment about these stories, potentially with links to relevant projects or web presences. Josie Galloway agreed, adding that a narrative structure would be incorporated. NWS suggested linking the report's narrative to NOAA's priorities, which will become clearer once the new Administrator is in place.

The Chair requested that the LOTMC keep the Science Council informed about stalled transitions and reach out for potential intervention when needed. The Chair also planned to meet with the LOTMC Chair in the coming months to check in on the progress of the transition reports process. The Science Council approved the LOTMC's proposal for transitioning to an annual report format.

- **NOAA Scientific Integrity Update:** Steve Thur
11:00 - 11:15 AM (15 min)
Informational

Julie Carruthers was introduced as NOAA's new Science Integrity Officer. Her first day was the day before the last SC meeting. Julie has a background as a chemist and served as the director of Scientific Workforce Integrity at DOE. One of her priorities was to help advance training in the workforce. Julie is excited to start with NOAA and help keep the integrity of NOAA and the trust of the public. Julie said she appreciates everyone for getting her up to speed. She also thanked Stephanie Oakes for serving as the Acting Scientific Integrity Officer.

Steve said that there are some issues that may affect our teams regarding scientific integrity policy. DOC recently released a new scientific integrity policy. NOAA and NIST worked with DOC to create that Department Administrative Order (DAO) which was signed by Secretary Raimondo before she left. You cannot find the policy online anymore because it has been taken down but not rescinded. OSTP gave a model template that was acceptable. The DAO laid out a process to raise concerns or allegations of misconduct or erosion of scientific integrity. DOC is supposed to fill management positions to move this process forward, but that has not happened yet. NIST and NOAA share this burden until filled. As of February 1, 2025, RA Nancy Hann has this new title. These positions rotate every 6 months if DOC still has not filled the position.

NOAA's scientific integrity policy was taken down two weeks ago but still might be available on the OCIO website. It was taken down due to components that did not comply with recent Executive Orders but has not been rescinded. We are seeking guidance from DOC, in which we were asked to remove these components, about half a dozen, and remove memos that are no longer active. The policy is currently working its way back up to DOC through the unions. RA Hann will sign when completed. There have been media inquiries on this subject.

- **NOAA 'Omics Annual Discussion**: Kelly Goodwin and Krista Nichols
11:15 - 11:55 AM (40 min)
Informational

The briefing focused on the growing role of 'omics technologies, especially environmental DNA (eDNA), in resource management and environmental protection. Key themes included rapid technological advancements, partnerships with the private sector, and the need for strategic updates and standardized guidance. eDNA technologies are fostering a growing industry of goods and services, with significant commercial interest. eDNA is being used to identify threats to drinking water, an issue considered a national security concern, particularly regarding harmful algal blooms (HABs) and water contamination in areas like the Great Lakes. NOAA is at the forefront of integrating 'omics into resource management, with a focus on safety and the environment.

There is strong collaboration between NOAA and private sector companies using 'omics for environmental data collection, including filtering water and collecting eDNA. The private sector is developing new platforms to filter eDNA more efficiently, and NOAA's role includes determining which platforms to prioritize. The need for more engagement with the private sector is emphasized, particularly in areas like deep-water species data collection and the development of uncrewed systems (UXS).

While 'omics technologies have advanced rapidly, there is a lack of standardized data that hampers trust and decision-making. NOAA is working to provide clear guidance on the state of the science and best practices. One primary obstacle discussed was integrating the National Water Strategy into inter-agency efforts. Stakeholders from small businesses expressed a need for guidance and standardized metrics to ramp up production. The current eDNA implementation plan is on pause but is expected to proceed soon with support from inter-agency partners, including the Navy, USGS, and the Smithsonian.

Discussion
Kelly Goodwin stressed the importance of leadership in ensuring the successful implementation of the National Aquatic eDNA Strategy. There is a call for a strategy refresh, particularly to integrate emerging technologies like AI and machine learning. The 2025 deadline for NOAA's strategic plan presents an opportunity to revisit and align the 'omics strategy with new technological advancements and policy shifts.

The Chair raised concerns about how 'omics can be applied to the new administration's priorities, especially in managing threatened and endangered species and advancing the economy through data-driven approaches. NOAA's ability to manage and promote data as a service and create useful data for broader environmental and economic goals will be central moving forward.

- **NOAA AI Strategy Introduction**: Monica Youngman, Rob Redmon, and Ben Richards
11:55 AM - 12:10 PM (15 min)
Directional

Monica Youngman introduced herself as the Chair of the new NOAA AI Executive Committee and shared that the current NOAA AI Strategy is outdated, particularly with the emergence of generative AI, which was not part of

the original strategy. The new strategy will be more concise, with a focus on a 2-page summary for clarity and impact. After receiving feedback from the Science Council, the next step is to send the strategy to the NOAA Executive Panel (NEP) for review. Monica emphasized that AI is crucial for NOAA's mission and its ability to meet growing demands, including public inquiries about NOAA's use of AI. The new strategy seeks to broaden AI's application beyond NOAA's traditional environmental mission space, incorporating areas like HR, budget, and administration, to maximize AI's potential across the entire organization.

Discussion

John Ramsdell referenced a 2023 GAO assessment, which found DOC was the second-largest user of AI after NASA. Monica confirmed that NOAA is a significant user, alongside NIST and Census, both of which focus on AI standards and data integration. Rob Redmon reiterated that NOAA is the largest user of AI within DOC based on past reports.

NESDIS asked how NOAA plans to prioritize AI use in high-impact areas. Monica Youngman responded that AI initiatives are already happening at a working level, including within an NCEI AI working group and the AI for weather prediction group, but the strategy will provide more structure for targeting high-priority areas.

A member from OAR inquired about the impact of the new administration's Executive Order (EO) on AI and how it would shape NOAA's strategy. Monica shared that the new EO was reviewed, and relevant provisions were incorporated into the strategy, though it lacks specific implementation guidance. Rob Redmon highlighted upcoming workshops as part of the implementation plan, including one focused on generative AI and a series of events designed to drive AI's integration across NOAA.

The Vice Chair raised concerns from the NESIDS perspective about the lack of targeted guidance and investment for implementing AI in NOAA science. He emphasized the need for clearer direction to support scientists and influence future budget planning.

The Scientific Integrity Officer asked how scientific integrity (SI) principles would be integrated into the AI strategy. Monica and Rob assured that trustworthiness in AI applications is critical. Best practices and SI principles are being incorporated into AI use cases, and NOAA is working with partners to ensure products align with these standards.

NMFS noted the growing need for IT resources as AI is integrated into operations. He pointed to the challenge of balancing manual and AI-driven processes, which incurs elevated costs during transitions. Monica responded that IT for AI is a core goal in the new strategy, with a focus on coordinating cloud and HPC strategies to address these needs.

NESDIS noted that he has had some excellent conversations and collaborations across NOAA's Cooperative Institutes (CIs) on these topics. It is important to note the role of CIs here to innovate very quickly with clear understanding of many of our operational requirements. Rob Redmon agreed that CIs are crucial and key in the space of evaluating and developing trustworthy AI methodologies (e.g. CIRA's role in evaluating the emerging data-driven models using NOAA data).

The Council of NOAA Fellows rep shared concerns that internal skepticism about AI, particularly in scientific proposals, is hindering its full adoption at NOAA. He noted the need for greater trust in AI products, emphasizing NOAA's internal strength in building confidence. Rob and Monica agreed that promoting trust in AI products is essential, and developing libraries of AI-ready datasets will help move the organization forward.

ANNOUNCEMENTS

- Next meeting: Tuesday, April 8th at 10:30 am ET

ACTION ITEMS
- Exec Sec will send out the NOAA AI Strategy for review by the Science Council, with a deadline of March 14th.
- Exec Sec will send the CY25 Science Council Briefings tasker to the SC principals for input.
- Exec Sec will set up a meeting with the LOTMC Chair, Steve, and Jose to check in on the LOTMC transition reports proposal process.