

Central and Northern California Ocean Observing System
Director
Description As of March 2018

The CeNCOOS Director is responsible for overall Regional Association management, including the overall management of the Regional Coastal Ocean Observing System (RCOOS) certification. The CeNCOOS Director, in collaboration with the Program Manager, manage the day-to-day governance and operation of the CeNCOOS system, oversee its response to users and stakeholders, participation and coordination with other IOOS initiatives, and the activities of sub-award institutions supported by CeNCOOS under this award. The Director is assisted by the MBARI grants office who ensures efficient financial operations and compliance. The Director and Program Manager are also assisted by the CeNCOOS Data and Information Manager and a Product Developer, who coordinate with working groups to provide ongoing systems support and oversight (including its Core Capability Advisory Committees and task teams).

Major responsibilities include but not limited to:

- Ensure ongoing programmatic excellence, integrity, and transparency;
- Develop and maintain the Central and Northern California regional component of the national Integrated Ocean Observation System (IOOS);
- Manage operations for RCOOS certification and standards compliance;
- Represent Central and Northern California interests to national and regional entities including US IOOS, the IOOS Association and in other national and international venues that further the CeNCOOS mission;
- Lead the CeNCOOS partnership to operate and evolve its integrated system of ocean observations to meet the needs of a wide variety of users, including industry, resource managers, researchers, public safety agencies, educators, and the public;
- Develop and implement the CeNCOOS Strategic Operational Plan, governance, strategic, regional, business, and education and outreach plans;
- Deepen existing partnerships and cultivate new partnerships with state and federal decision-makers, scientific community, and stakeholders.
- Oversee contracts and subawards.
- Supervise employees and contractors as appropriate.
- Assist with implementation of the national IOOS program, as well as obtaining funding for the program.
- Seek extramural funding opportunities through proposal writing and coalition building.
- Work with the Governing Council to support strategic and financial decisions.

Central and Northern California Ocean Observing System
Deputy Director
Description As of January 2024

The Deputy Director works closely with the CeNCOOS Director, staff, and Governing Council to manage the ongoing observation systems and planning efforts in Central and Northern California. The role is responsible for day-to-day Observation Systems Management across the region, including administration of the program and serves on behalf of the Director as needed.

Major responsibilities include but are not limited to:

- Develop and implement strategic plans that help the program run efficiently and coordination with the Director and Governing Council, including the refresh of 5-year Strategic Plans;
- Assist in all aspects of developing the CeNCOOS program, including representing CeNCOOS in national to regional fora, observing system and Strategic Plan performance metric and overall systems reviews, and development of build-out plans and updates;
- Coordinate product and project management oversight within the organization;
- Support administrative management and oversight of CeNCOOS grants, programs and subawards including data contracts and subawards;
- Develop organizational frameworks and provide direct operational oversight of all CeNCOOS ocean observing assets and activities;
- Establish reporting and evaluation metrics to monitor the progress of the program in meeting goals and objectives and ensuring organizational accountability;
- Maintain documentation and review related practices and procedures related to maintaining Regional Coastal Ocean Observing System (RCOOS) certification from NOAA;
- Coordinate and organize Governing Council and other CeNCOOS and IOOS meetings through communications and reporting program requirements, including revision of the CeNCOOS Bylaws as needed;
- Work closely with the CeNCOOS staff, partners and stakeholders to understand evolving regional needs facilitate the prioritization and implementation of new observing instruments and initiatives, improved service delivery;
- Help supervise data management and other program employees and contractors and coordinate closely with the CeNCOOS Principal Investigators and technical staff;
- Participate with national programmatic efforts and activities in other regional ocean observing programs, such as managing the California Current Acidification Network;
- Lead and participate in CeNCOOS proposal development efforts, including acting as Principal Investigator on select extramural proposals, as well as organizes required and supporting documentation, facilitates working groups, give presentations at professional

conferences and meetings, writes peer reviewed papers and white papers relevant to ocean observing;

- Oversee communications activities to increase ocean observing literacy, improve service delivery and the impact of coastal ocean observing on decision-making and wise use of the ocean;
- Organize production of targeted, audience-specific education and outreach materials including a seasonal newsletter, website maintenance, social media content and printed materials;
- With support from the Director, lead CeNCOOS public policy engagement and education activities, liaising with local, state, and federal agencies and representatives.
- Lead environmental compliance coordination, including permitting documentation and NEPA/CEQA compliance;
- Spearhead partner and stakeholder outreach and engagement, including building new partnerships.

Central and Northern California Ocean Observing System
Data and Information Manager
Description as of July 2024

The Data and Information Manager reports to the CeNCOOS Director, and works closely with the Program Office staff as the position responsible for meeting aspects of Regional Coastal Ocean Observing System (RCOOS) certification related to data management and related standards and practices. This includes working with Data Specialists and with direction of the Deputy Director.

Responsibilities include but are not limited to:

- Coordinate data management activities among the IOOS Program Office, its DMAC team, our DMAC delivery partner Axiom Data Science, and other CeNCOOS Partners (e.g. via regular conference calls and standards reviews);
- Support the CeNCOOS DMAC Sub-system, which includes all CeNCOOS hardware (servers) and software that support data ingestion, search, aggregation, access/transport, and storage/archive systems in compliance with IOOS requirements;
- Responsible for working with Axiom et al. to ensure their work is in line with IOOS DMAC and other standards;
- Ensure CeNCOOS Data Subsystem meets IOOS information coordination requirements, including those for interoperability and quality control;
- Assists in maintaining and updating RCOOS certification documents, with assistance from other CeNCOOS Program Office staff and Axiom;
- Support functioning of data services including ERDDAP and THREDDS in cooperation with Axiom;
- Maintain and refresh existing data source catalogs, metadata, and work with the CeNCOOS Technical Manager to create and update data stream plans;
- Use and update QARTOD as a means to discuss data quality and flagging with data provider teams;
- Maintain CeNCOOS web site including ensuring MBARI and contractor systems underpin robust website function;
- Create and update usage analytics for our website, the California Ocean Observing Systems Data Portal and its key components, and mobile and tablet applications;
- In cooperation with the CeNCOOS Data Specialist and Place-Based Management Data Specialist:
 - Provide two-way communication with users through product feedback, thus shaping the flow of information so that it meets their needs;
 - Ingest new data following CeNCOOS strategic priorities;
 - Produce analytics to underpin data syntheses and condition reports on the status and trends of key indicator variables;
 - Facilitate DMAC-related engagement with data providers, as well as end users (e.g. tracking feedback, response and actions);
- In cooperation with the CeNCOOS Engagement Specialist, contribute to communications by maintaining internet-based education and outreach tools or data access training materials to improve data accessibility.

Central and Northern California Ocean Observing System
Technical Manager
Description as of October 2024

The role works closely with other CeNCOOS staff and collaborators to advance data stream development and evolution across *in situ* sensors and sampling through to cyberinfrastructure systems that process and deliver information. This includes managing projects related to the new coastal resilience activities. In close cooperation with the CeNCOOS Program Office team including the Engagement Specialist and other Data Management and Cyberinfrastructure (DMAC) experts, this role bridges technical development between acquisition, curation, and dissemination of data and information products from suppliers to users of information. This includes data from the domains of physics, biogeochemistry, biology and ecology. This work will include the integration of data through forming and applying best practices, which then make data findable, accessible, interoperable and reusable (FAIR).

Major responsibilities include, but are not limited to:

- Oversee teams to link new and existing data sources to develop data and information products;
- Develop capabilities to search for, visualize or process CeNCOOS data holdings, including via knowledge and context gathering facilitated through work of the CeNCOOS Engagement Specialist;
- Provide technical project management and oversight including CeNCOOS tracking and reporting progress towards strategic goals and metrics, ensuring available resources are being utilized to meet objectives, including from extramural grants and subawardees;
- Progressing and tracking the delivery of new data streams from multiple partners for ocean acidification, waves, water level, imaging, ocean sound and biology and ecosystems variables;
- Work with the CeNCOOS Place-Based Management Data Specialist to streamline the production of analytics to underpin data syntheses and condition reports on the status and trends, such as for California marine protected areas, Integrated Ecosystem Assessments, National Marine Sanctuary Condition Reports and information to support decision making for developing offshore wind energy industry;
- Maintain knowledge of information product development and maintenance practices, including software development skills such as Python, R, Matlab, Geographic Information Systems (GIS) and emerging tools;
- With the support of the CeNCOOS Program Office team, across Data Management and Cyberinfrastructure and engagement activities, to plan and join or lead meetings and workshops for current and prospective ocean observing practitioners and information users that reach new communities;
- Contribute to the dissemination of CeNCOOS products and tools, including maintaining Internet-based education and outreach materials or data access training tutorials to improve data accessibility;

- Support CeNCOOS and IOOS meeting logistics that facilitate technical project team and working group deliberations;
- Work with the CeNCOOS Data and Information Manager and other data specialists to lead development of new data and web products, including website content using Wordpress, Javascript, HTML, as well as building dashboards and data visualization tools;
- Coordinate and collaborate with various CeNCOOS-linked project partners, including regional stakeholders, research institutions, industry partners, and the IOOS DMAC community to align efforts and initiatives with CeNCOOS goals and strategic objectives.

Central and Northern California Ocean Observing System
Place-Based Management Data Specialist
Updated as of February 2025

In close collaboration with the CeNCOOS Director, Deputy Director, and regional and national teams, the role will support the integration and processing of data and information, evaluating new and emerging technologies, and incorporating established data streams new to CeNCOOS. Focus areas include biology and ecosystems data, such as passive acoustic monitoring of ocean sounds from marine life, occurrences of marine life identified from eDNA, and imaging of marine life and habitats. This includes cross-comparisons to validate technological advancements and integrate data for place-based management applications.

Major responsibilities include but are not limited to:

- Integrate biological and ecosystem data for cross-comparisons, technical evaluations, and onward use in ecological change assessments;
- Develop and implement data products and services driven through engagement with interested parties;
- Work with data providers to find, standardize, and improve access to new and historical data for integration and onward (re)use, following FAIR and CARE principles;
- Develop capabilities to present, visualize or process CeNCOOS data holdings, which include physical, biogeochemical, biology and ecosystem data;
- Maintain knowledge of information product development and maintenance practices, including software development skills such as Python, Matlab, Geographic Information Systems (GIS) and emerging tools;
- Assist in data management activities among CeNCOOS and Synchro partners (e.g. via regular conference calls and standards reviews);
- Help facilitate DMAC-related engagement with data providers, as well as information users (e.g. tracking feedback, response and actions);
- Streamline the production of analytics to underpin data syntheses and condition reports on the status and trends, such as for California marine protected areas, Integrated Ecosystem Assessments, and National Marine Sanctuary assessments;
- Make data available through machine readable formats through data services for automated onward use;
- Contribute to the dissemination and Synchro technology evaluations, and CeNCOOS, IOOS products and tools, including maintaining Internet-based education and outreach materials or data access training tutorials to improve data accessibility.

Central and Northern California Ocean Observing System
Engagement Specialist
Updated as of February 2025

In close collaboration with the Deputy Director, CeNCOOS Director, and regional and national teams, the role will lead network engagement and the translation and dissemination of ocean information to support resilient decision making and functioning of a sustainable Blue Economy. An integral part of this role involves communicating with all our stakeholders, as well as workforce development as ocean industries expand.

Major responsibilities include but are not limited to:

- Engage with CeNCOOS member organizations, ocean observing practitioners, users of ocean information, and the greater IOOS network and make connections and build relationships with new user groups;
- Maintain working relationships and communications with representatives from academic, industrial, governmental and tribal organizations and coordinate shared research efforts, and follow-up on feedback for continuous improvement;
- Develop engagement and outreach strategies to target new and existing users of information to promote CeNCOOS tools to foster an understanding of ocean data and how to access it;
- Develop and disseminate communications materials including writing newsletter, website and social media content, presentations and educational materials tailored for specific audiences;
- Join or lead (when appropriate) CeNCOOS teams and working groups to drive program developments and improvements, including setting meeting agendas and goals, including to support the ongoing development of the California Ocean Observing Systems Data Portal and products that support resilient decision making;
- Serve as liaison between the information users and information product developers, compiling, communicating with and following through with questions and issues, such as tracking the delivery of new data streams from multiple partners for waves, water level, imaging, ocean sound and biology and ecosystems variables;
- Support efforts to improve access to data and tools of CeNCOOS and IOOS, including the development and oversight of a new CeNCOOS Ocean Data Ambassadors program;
- Help coordinate development of educational materials, including for community colleges and other venues that improve the reach and impact of our work;
- Track and report progress towards coastal resilience and improved service delivery goals.