Center for Operational Oceanographic Products and Services (CO-OPS)
Strategic Plan 2019-2023

Message from the Director

I am pleased and excited to introduce our FY19-23 Strategic Plan that will guide our planning and decisions over the next five years. This plan takes a different approach than its predecessors by focusing primarily on those strategic objectives that we, our partners, and our stakeholders have identified as the key areas we most need to move forward and make progress on in the coming years. CO-OPS is an end to end operational program providing a continuous stream of products and services. Many of these support safety of life and property decisions being made on a daily basis in both the public and private sectors. It is also vital that we continue to move forward and keep pace with today's fast changing world.

The plan's three goals and underlying objectives focus on providing the best products and services that our users need; continually enhancing our coastal ocean observation systems and models; and promoting a high performing workforce. Our new Strategic Plan is complemented by an implementation plan that lays out the activities and milestones to be performed under each objective. The implementation plan guides our annual planning process and execution is tracked through our performance measures, quarterly reviews, and other mechanisms. Over the next 5 years, we will strive to continue improving on our long history of exemplary service to the nation.

Who We Are

CO-OPS is the authoritative source for accurate and reliable tides, water levels, currents, and other oceanographic and meteorological information. CO-OPS is comprised of oceanographers, engineers, field technical experts and information system experts. Our services support safe and efficient maritime commerce and transportation, protect public health and safety, and safeguard coastal communities. These responsibilities are mandated by Congress and date back to 1807 as part of the nation's oldest scientific agency.

We maintain ocean observation infrastructure, including more than 200 permanent water level stations on the U.S. coasts and Great Lakes, an integrated system of real-time sensors concentrated in busy seaports, and temporary meters that collect observations for tidal current prediction updates. Through these systems, we are able to provide the nation with historical and real-time data, forecasts, predictions and scientific analyses that support our Nation's economy and protect life and the environment on the coast.

One of our foundational responsibilities is maintenance of the nation's vertical reference frameworks, the National Tidal Datum Epoch (NTDE) and the International

Great Lakes Datum (IGLD), which are used for referencing and communicating tides and water levels along the coasts and Great Lakes. Over the next five years we will embark on major updates to both of these reference frames.. The NTDE is a specific 19-year period, updated every 20-25 years, used to define Mean Sea Level and other tidal datums such as Mean Lower Low Water and Mean High Water. IGLD was established in 1955 as a common datum between the United States and Canada to reference water level heights in the Great Lakes.

Partnerships and Support for NOAA Priorities

We have long practiced a cross-cutting, multi-mission approach in taking the timely, accurate and reliable data acquired by our observing systems and turning them into meaningful information for the nation. While we strive to provide a suite of products and services that directly supports the needs of the maritime navigation community and coastal and emergency managers, we also make it a priority to work across the agency, helping our NOAA partners fulfill their missions. We provide one minute water level information to the National Weather Service (NWS) for tsunami warnings, real time observations and predictions for NWS coastal flood watches and warnings, and water level information to the National Marine Fisheries Service for habitat restoration. We provide valuable tidal datums to the Office of Coast Survey and National Geodetic Survey for charting our safe marine navigation routes and shorelines, and scientific analyses of high tide flooding and sea level trends for resilience planning and climate research.

We play a key role in supporting the NOAA strategic priorities supporting the Blue Economy - that is, increasing the sustainable economic contributions of our ocean resources - as well as implementation of the Weather and Water Act (PL 115-25), which aims to reduce the impacts of extreme weather and water events in order to save lives and protect property. We rely on collaboration with our partners across NOAA, other federal agencies, state and local governments, private industry, Integrated Ocean Observation System (IOOS) Regional Associations, and academia to leverage unique capabilities throughout the continuum from sustained observations of the coastal environment to product and service delivery.

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Vision

Supporting the nation's economy and safeguarding coastal communities with oceanographic information accessible by anyone, at any time, from any place.

Mission

Serve as the authoritative source for accurate, reliable, and timely tide, water level and other oceanographic information to support safe and efficient maritime navigation, coastal hazards preparedness and response, and sound ecosystem management.

Goal 1: Deliver user-driven decision support and oceanographic information to enhance the nation's economy and safeguard coastal communities.

Sustained, high-quality coastal, ocean, and Great Lakes observations are an invaluable public asset. We strive to maximize the value and impact of these observations through the delivery of data services and targeted decision support tools. Over the next five years we will specifically invest in the next generation of navigation services and coastal inundation products, and will broadly engage respective user communities to design and deliver effective tools through a modern mobile website. At the same time, we will empower others outside of the federal government to create additional products and decision support tools by increasing the discoverability of our data and providing readily-accessible data services. We will also efficiently maintain modern vertical reference frameworks for the nation's coastal areas and the Great Lakes region to ensure accurate application of tide and water level observations, as well as informed decision support tools.

User Driven Products and Services

1.1 Advance and integrate a full spectrum of inundation products with extended outlook and spatial coverage, including storm surge, high tide flooding, and sea level trends.

1.2 Improve data discoverability and accessibility to enable greater value and impact through partner applications.

1.3 Advance the next generation of navigation services with integrated real time data, predictions, and forecast information to facilitate user decision-making.

1.4 Modernize and streamline the delivery of CO-OPS products and services through the Tides and Currents website based on validated user feedback.

1.5 Modernize the Nation's foundational reference frameworks leveraging automation, improved tools, and underlying procedures.

1.6 Sustain a responsive user engagement and feedback process to adjust to evolving needs.

Goal 2: Increase the reliability, integrity, and sustainability of coastal observations and modeling systems.

Our coastal observations and modeling systems meet rigorous scientific standards and our data are reliable and always available for our stakeholders to access and use with great certainty. Over the next five years we will continue to be a leader in the Federal Government for collecting and analyzing water level data for the benefit of our nation's economy, public safety, and sound ecosystem management. We will use advanced technology to ensure the sustainability of our coastal and Great Lakes observation infrastructure. In order to provide more coastal coverage for our products, we will grow our coastal observations and modeling programs through partnerships and community based approaches. We will also provide technical expertise, enabling partners to collect data for their own needs.

Oceanographic Observations and Modeling Systems

2.1 Implement a data-driven approach to system maintenance resulting in increased sustainability, efficiency, and cost savings

2.2 Implement Global Navigation Satellite System (GNSS) technology as a primary vertical control to sustain global leadership in water level observations.

2.3 Expand and enhance coastal observation coverage in accordance with a five-year modeling plan.

2.4 Help lead NOS toward a unified modeling approach in support of NOAA's diverse missions.

2.5 Leverage partners to fill critical National Water Level Observation Network (NWLON) gaps.

2.6 Institutionalize a robust Technical Assistance Program to assist partners with data collection and analysis.

2.7 Lead coordination and standardization of coastal water level measurement procedures among mission-aligned federal agencies.

Goal 3: Achieve a diverse, inclusive, and high performing workforce supported by innovative information technology and agile operating practices.

Our workforce is essential to the success of meeting current and emerging priorities. Investments in our workforce are critical to foster an effective and high performing organization. Over the next five years we commit to enhancing existing staff skills through training/mentoring and recruiting new talent to keep pace with changing technologies. Promoting a diverse workforce with unique perspectives and skills will ensure we can tackle complex challenges. We will also seek to adopt a more agile operating posture, leveraging unique capabilities of our staff and engaging our users throughout the continuum of product development and service delivery.

Organizational Performance

3.1 Cultivate a diverse workforce to leverage unique perspectives, backgrounds, experiences, and skills, and enrich CO-OPS' mission impacts.

3.2 Promote an inclusive culture where every person feels valued for their contributions, connected to our mission, and energized by CO-OPS' beneficial impacts on the nation.

3.3 Achieve an organizational culture in which members demonstrate accountability, explore innovation, and pursue high performance.

3.4 Increase organizational tolerance for risk taking to promote continuous learning and innovation.

3.5 Develop and train our workforce to adapt to evolving mission requirements and provide challenges and opportunities that promote professional growth.

3.6 Optimize the staffing and organizational structure to align with strategic priorities and ensure mission success.

3.7 Formalize structured onboarding and exit strategies to ensure knowledge transfer and continuous learning.

3.8 Modernize IT infrastructure, tools, and technologies, and adopt agile business processes to improve the delivery of our products and services to the nation.

3.9 Increase automation of work-intensive operational processes to redirect resources toward strategic priorities.