



## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### Request for Public Comment on a Draft Standard Ocean Mapping Protocol

**AGENCY:** Office of Coast Survey, National Ocean Service, National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

**ACTION:** Notice of request for comments.

**SUMMARY:** The National Ocean Mapping, Exploration, and Characterization (NOMECE) Council and the Interagency Working Group on Ocean and Coastal Mapping (IWG-OCM) request public comment from all interested parties on the IWG-OCM's draft Standard Ocean Mapping Protocol (SOMP). The draft SOMP was developed in accordance with Objective 2.1 of the National Strategy for Ocean Mapping, Exploring, and Characterizing the United States Exclusive Economic Zone (National Strategy). Objective 2.1 directs the IWG-OCM to establish a SOMP to encourage consistency in data acquisition, stewardship and data management across a subset of ocean sensing capabilities for seafloor mapping, including bathymetry (acoustic and airborne), seabed backscatter, water column backscatter, side scan sonar imagery, sub-bottom profiling, and magnetometer data readings.

**DATES:** Comments must be received via email by 5 p.m. Eastern Time (ET) on June 2, 2023.

**ADDRESSES:** A copy of the draft SOMP may be downloaded or viewed at:

[https://iocm.noaa.gov/standards/Standard\\_Ocean\\_Mapping\\_Protocol\\_draft\\_Feb2023.pdf](https://iocm.noaa.gov/standards/Standard_Ocean_Mapping_Protocol_draft_Feb2023.pdf). A copy of the National Strategy may be downloaded or viewed at:

<https://www.noaa.gov/sites/default/files/2021-08/NOMECE%20Strategy.pdf>. A copy of the National Strategy Implementation Plan may be downloaded or viewed at:

<https://www.noaa.gov/sites/default/files/2021-11/210107-FINALNOMECEImplementationPlan-Clean.pdf>.

Comments can be submitted by email to [iwgoem.staff@noaa.gov](mailto:iwgoem.staff@noaa.gov) by 5 p.m. ET on June 2, 2023.

Instructions: Response to this notice is voluntary. Please include “Public Comment on Draft SOMP” in the subject line of the message. If applicable, clearly indicate the section and page number to which submitted comments pertain. All submissions must be in English. Email attachments will be accepted in plain text, Microsoft Word, or Adobe PDF formats only. Each individual or institution is requested to submit only one response. Please note that the U.S. Government will not pay for response preparation, or for the use of any information contained in the response.

**FOR FURTHER INFORMATION CONTACT:** Requests for additional information should be directed to Paul Turner, NOAA Integrated Ocean and Coastal Mapping, at [iwgocm.staff@noaa.gov](mailto:iwgocm.staff@noaa.gov), (240) 429-0293.

**SUPPLEMENTARY INFORMATION:**

*Background*

Pursuant to Objective 2.1 of the National Strategy, this SOMP was drafted to encourage consistency in data acquisition, stewardship and data management for seafloor mapping. The SOMP is organized into the following seven chapters:

1. Data Management - The data management chapter covers methods for effective data management, metadata, and archive techniques, which allow data to be accessed by and shared freely with the public.
2. Bathymetry - The bathymetric data chapter focuses on procedures for collecting, processing, and delivering bathymetry acquired by multibeam, single beam, and phase-discriminating sonar, and light detection and ranging (LIDAR) systems. This chapter summarizes best practices for: positioning, system calibration and Quality Assurance/Quality Control (QA/QC) techniques, coverage and resolution, uncertainty, tides and water levels, and general gridded data specifications.
3. Seabed and Lakebed Backscatter - The backscatter data chapter focuses on establishing common backscatter acquisition and processing methods, acoustic signal corrections and

image processing steps leveraging existing guidelines and recommendations from the Marine Geological and Biological Habitat Mapping Backscatter Working Group, as well as expert input from government, industry, academic institutions and other relevant bodies.

4. Water Column Sonar - The water column sonar chapter focuses on collecting, processing, and delivering raw and interpreted backscatter from single beam and multibeam echosounders. This chapter summarizes best practices for system configurations, operating frequencies and depth ranges, system calibration, QA/QC techniques, and analysis, and interpretation of backscatter.
5. Side Scan Sonar - The Side Scan Sonar chapter focuses on collecting, processing, and delivering side scan sonar data. This chapter summarizes best practices for acquisition standards and system set-up, range scales, frequencies and ping rates, coverage requirements, positioning, system calibration, QA/QC techniques, and derivation of products.
6. Sub-bottom - The sub-bottom profiling chapter focuses on common system types, practical survey design, conventional acquisition procedures, processing protocols, data formats, and publication of subsurface imaging data. The chapter describes the standard operating procedure for the use of single-channel acoustic systems that commonly operate in the 0.2 to 24 kilohertz frequency range to remotely image the surface morphology and near-surface stratigraphy.
7. Magnetometer - The magnetometer chapter focuses on general magnetic theory as it relates to anomaly detectability, factors that influence data quality, instrument configuration and selection, platforms, coverage specifications, testing and calibration, and resolution/line spacing based on survey objectives.

The SOMP encourages use of national standards and best practices to guide all ocean mapping actions in order to ensure the widest access to, use of, and integration of data

while minimizing duplication of effort and archiving of ocean and coastal mapping data in publicly accessible repositories and databases. Collecting, processing, and archiving data to established standards expands its utility for multiple uses. Ocean mapping data are required to meet many Federal government missions. To make the most of every survey mile collected, the IWG-OCM works with and encourages participation from partnering federal, state, local, academic, private industry, and non-profit organizations on mapping activities, data collection, and data sharing.

Authority: 33 U.S.C. 883e.

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[FR Doc. 2023-03795 Filed: 2/23/2023 8:45 am; Publication Date: 2/24/2023]