

Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

NOAA NCCOS Assessment: Prioritizing Areas for Future Seafloor Mapping and Exploration in the U.S. Caribbean from 2019-06-28 to 2019-07-28

1.2. Summary description of the data:

Spatial information about the seafloor is critical for decision-making by marine resource science, management and tribal organizations. Coordinating data needs can help organizations leverage collective resources to meet shared goals. To help enable this coordination, the National Oceanic and Atmospheric Administration (NOAA) National Centers for Coastal Ocean Science (NCCOS) developed a spatial framework, process and online application to identify common data collection priorities for seafloor mapping, sampling and visual surveys off the US Caribbean territories of Puerto Rico and the US Virgin Islands. Fifteen participants from local federal, state, and academic institutions entered their priorities in an online application, using virtual coins to denote their priorities in 2.5x2.5 kilometer (nearshore) and 10x10 kilometer (offshore) grid size. Grid cells with more coins were higher priorities than cells with fewer coins. Participants also reported why these locations were important and what data types were needed. Results were analyzed and mapped using statistical techniques to identify significant relationships between priorities, reasons for those priorities and data needs. Fifteen high priority locations were broadly identified for future mapping, sampling and visual surveys. These locations include: (1) a coastal location in northwest Puerto Rico (Punta Jacinto to Punta Agujereada), (2) a location approximately 11 km off Punta Agujereada, (3) coastal Rincon, (4) San Juan, (5) Punta Arenas (west of Vieques Island), (6) southwest Vieques, (7) Grappler Seamount, (8) southern Virgin Passage, (9) north St. Thomas, (10) east St. Thomas, (11) south St. John, (12) west offshore St. Croix, (13) west nearshore St. Croix, (14) east nearshore St. Croix, and (15) east offshore St. Croix. Participants consistently selected (1) Biota/Important Natural Area, (2) Commercial Fishing and (3) Coastal/Marine Hazards as their top reasons (i.e., justifications) for prioritizing locations, and (1) Benthic Habitat Map and (2) Sub-bottom Profiles as their top data or product needs. This ESRI shapefile summarizes the results from this spatial prioritization effort. This information will enable US Caribbean organization to more efficiently leverage resources and coordinate their mapping of high priority locations in

the region.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2019-06-28 to 2019-07-28

1.5. Actual or planned geographic coverage of the data:

W: -68.3, E: -64.1, N: 18.9, S: 17.4

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

Map (digital)

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:

NCCOS Scientific Data Coordinator

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:

NCCOS.data@noaa.gov

2.5. Phone number:

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

NCCOS Scientific Data Coordinator

3.2. Title:

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

No

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

Unknown

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

- There were four main steps in the US Caribbean spatial prioritization process. The first step was to identify the technical advisory team, which included the 4 CRCP members: 2 from each the Puerto Rico and USVI regions. This advisory team recommended 33 organizations to participate in the prioritization. Each organization was then requested to designate a single representative, or respondent, who would have access to the web tool. The respondent would be responsible for communicating with their team about their needs and inputting their collective priorities. Step two was to develop the spatial framework and an online application. To do this, the US Caribbean was divided into 4 subregions: nearshore and offshore for both Puerto Rico and USVI. The total inshore regions had 2,387 square grid cells approximately 2.5x2.5 km in size. The total offshore regions consisted of 438 square grid cells 10x10 km in size. Existing relevant spatial datasets (e.g., bathymetry, protected area boundaries, etc.) were compiled to help participants understand information and data gaps and to identify areas they wanted to prioritize for future data collections. These spatial datasets were housed in the online application, which was developed using Esri's Web AppBuilder. In step three, this online application was used by 15 participants to enter their priorities in each subregion of interest. Respondents allocated virtual coins in the grid cells to denote their priorities for each region. Respondents were given access to all four regions, despite which territory they represented, but were not required to provide input into each region. Grid cells with more coins were higher priorities than cells with fewer coins. Participants also reported why these locations were important and what data types were needed. Coin values were standardized across the nearshore and offshore zones and used to identify spatial patterns across the US Caribbean region as a whole. The number of coins were standardized because each subregion had a

different number of grid cells and participants. Standardized coin values were analyzed and mapped using statistical techniques, including hierarchical cluster analysis, to identify significant relationships between priorities, reasons for those priorities and data needs. This ESRI shapefile contains the 2.5x2.5 km and 10x10 km grid cells used in this prioritization effort and associated the standardized coin values overall, as well as by organization, justification and product. For a complete description of the process and analysis please see: Kraus et al. 2020. (Citation: Kraus, J., B. Williams, S.D. Hile, T. Battista, and K. Buja. 2020. Prioritizing Areas for Future Seafloor Mapping, Research, and Exploration in the U.S. Caribbean. NOAA Technical Memorandum NOS NCCOS 286. Silver Spring, MD. 27 pp. doi:10.25923/w6v3-ha50)

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

For details of data quality control methods, see Lineage Sources. All users should independently analyze the datasets according to their own needs and standards to determine data usability.

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:
- 1.7. Data collection method(s)

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

<https://www.fisheries.noaa.gov/inport/item/65526>

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

Yes

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

Zenodo

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

<https://doi.org/10.5281/zenodo.3909728>

https://gis.ngdc.noaa.gov/arcgis/rest/services/nccos/BiogeographicAssessments_USCaribbeanPrioritiz

https://gis.ngdc.noaa.gov/arcgis/rest/services/nccos/BiogeographicAssessments_USCaribbeanPrioritiz

<https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=537dfa0a18334b1c82e0f691b85c28>

7.3. Data access methods or services offered:

Download from website

7.4. Approximate delay between data collection and dissemination:

Six months

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To

Be Determined, Unable to Archive, or No Archiving Intended)

OTHER

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):

National Centers for Coastal Ocean Science - Silver Spring, MD

8.3. Approximate delay between data collection and submission to an archive facility:

Six months

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

NCCOS IT Policy

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.