

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:

Side-Scan_Sonar backscatter mosaic for Hudson River, NY (.tif)

1.2. Summary description of the data:

Raw XTF files. Sonar data were collected November 6 to December 15, 2009, in the estuary north from Saugerties to Troy. Data Collection and Processing: The interferometric system used to measure acoustic reflectivity, provided a quantitative measure of reflectivity for every square meter of the survey area. Fugro's system measured and recorded acoustic reflectivity that has a high dynamic range such that the full range of reflectivity's encountered in the estuary environment can be recorded while maintaining a constant gain setting on the system receiver. Reflectivity data from the GeoSwath was used to produce a normalized as well as a classified image of the bottom. Additionally, Fugro provided slope, aspect and hillshade models as additional acoustic parameters. Backscatter data processing was completed with CARIS 7.0. Raw XTF files were created by converting Hypack format (*.HSX) into Triton format (*.XTF) using Hypack 2009a.

Original contact information:

Contact Name: John Ladd

Contact Org: Hudson River National Estuarine Research Reserve, NYS DEC

Phone: 845-889-4745

Email: jxLadd@gw.dec.state.ny.us

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:

2009 to 2010

1.5. Actual or planned geographic coverage of the data:

W: -73.933444, E: -73.685262, N: 42.75206, S: 42.064506

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:

NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:

coastal.info@noaa.gov

2.5. Phone number:

(843) 740-1202

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:

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?

4.2. Approximate percentage of the budget for these data devoted to data management (

specify percentage or "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:

- 2010-01-01 00:00:00 - For seabed classification, the industry standard is to not change gains during a survey. Test lines were run to determine the optimum gain settings for the actual bottom backscatter values. Selected gain settings remained unchanged over the course of the project. The following parameters were used when collecting the data - GeoSwath Transmit Power = 2, GeoSwath Pulse Length = 2, GeoSwath SSS Frequency = 250kHz
- 2010-01-01 00:00:00 - Using a data converter in Hypack 2009a (HSX2XTF), raw side scan sonar files were converted from Hypack's HSX format to Triton's XTF format.
- 2010-01-01 00:00:00 - For export of .tif files. Once the side scan was cleaned and edited, this non-normalized data was converted into a series of GeoTIFF mosaics. Mosaics are geographically referenced, and presented in one meter resolution. For ease of integration with previous benthic mapping products, all GeoTIFF images (including those listed below) were broken into panels coinciding with the boundaries and naming convention of the Hudson River Survey Index. With Caris 7.0 Mosaic Editor, the data was normalized by applying Auto TVG (Time-Varying Gain), which applies gains to individual pings, and AVG (Angle-Varying Gain) utilizing the Trend Method. AVG was used to normalize mean angular intensities with a moving average filter applied to a window of pings. According to Caris, the Trend Method defines how to weigh the samples when doing the AVG. Backscatter curves can usually be modeled with a line for those samples between 30 and 60 degrees from nadir. This method will do a line of best fit for data between 30 and 60 degrees and give a high weight to those samples that fit the line the closest. Samples outside this 30-60 degree range will all be weighted equally. Once side scan data was normalized, GeoBars (Geo-referenced Backscatter Raster) were created. From the GeoBars, the data were exported into GeoTIFF images portraying the normalized orthorectified mosaics in one meter resolution. On Charts 5a-5c, the normalized orthorectified mosaics created from the current sonar reflectivity dataset were laid over top of the data previously collected by SUNY.

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):**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)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
 - 7.1.1. If data are not available or has limitations, has a Waiver been filed?
 - 7.1.2. If there are limitations to data access, describe how data are protected
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

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/49590>

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?

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:

NOAA Office for Coastal Management (NOAA/OCM)

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

7.2.2. URL of data access service, if known:

<https://coast.noaa.gov/dataviewer/#/imagery/search/where:ID=1177>

https://coastalimagery.blob.core.windows.net/digitalcoast/HudsonRiverNY_2009_1177/index.html

7.3. Data access methods or services offered:

7.4. Approximate delay between data collection and dissemination:

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)

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):

Office for Coastal Management - Charleston, SC

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

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

9. Additional Line Office or Staff Office Questions

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