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:

2010 US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) Topobathy Lidar: Alabama Coast and Florida Gulf Coast

1.2. Summary description of the data:

These files contain topographic and bathymetric lidar data collected by the HawkEye system along the coast of Alabama and the gulf coast

of Florida. The data were collected January - March 2010. The area of coverage includes the coastline in Baldwin and Mobile Counties

in Alabama and the following Florida counties: Bay, Escambia, Franklin, Gulf, Okaloosa, Santa Rosa, and Walton.

HawkEye integrates topographic and bathymetric lidar sensors with a digital camera on a single remote sensing platform for use in

coastal mapping and charting activities. The topographic lidar sensor has a pulse repetition rate of 64 kHZ at 1064 nm (red wavelength).

The bathymetric lidar sensor has a pulse repetition rate of 4 kHz at 532 nm (green wavelength). Native lidar data is not generally in a

format accessible to most GIS systems. Specialized in-house and commercial software packages are used to process the native lidar data

into 3-D positions that can be imported into GIS software for visualization and further analysis.

The data were provided to NOAA OCM in decimal degrees of latitude and longitude, referenced to the NAD83 ellipsoid and in meters.

The National Geodetic Survey's (NGS) GEOID03 model was used to transform the vertical positions from ellipsoid to orthometric heights

referenced to the North American Vertical Datum of 1988 (NAVD88). The format of the file was LAS version 1.0. For data storage and Digital

Coast provisioning purposes, NOAA OCM converted the orthometric heights (NAVD88) back to ellipsoidal heights using GEOID03.

Original contact information:

Contact Org: JALBTCX

Title: Data Production Manager

Phone: 228-252-1111

Email: shoals-info@sam.usace.army.mil

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:
2010-01 to 2010-03

1.5. Actual or planned geographic coverage of the data:
W: -88.356612, E: -84.331479, N: 30.404759, S: 29.586813

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

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:
- These data were collected using the Hawk Eye system. It is owned by BlomUK and operated through contract. The system collects topographic lidar data at 64 kHz, bathymetric lidar data at 4 kHz and RGB imagery covering the LiDAR area. Aircraft position, velocity and acceleration information are collected through a combination of IRS and GPS system (POS AV 410). All raw data streams are transferred to the office for downloading and processing in Coastal Survey Studio software. Aircraft position data are processed using Applanix software and the results are combined with the lidar data to produce 3-D positions for each lidar shot. Upon inspection and QC/QC in the software packages TerraSolid and Fledermaus, anomalous data are flagged as invalid. Especially designed HawkEye tool then converts all valid data from ellipsoid to orthometric height based on NGS GEOID03 model and exports topographic data as a series of ASCII files with a single file per flightline per 5 km box. The flightline ASCII files are imported into TerraScan <v10> module within Microstation <V8i>. The data are thinned to eliminate duplicate points. A customized classification macro is used to distinguish ground points (2) and unclassified points (1). The classification results are QC'd and any misclassified

points are manually edited.
- 2011-09-01 00:00:00 - The NOAA Office for Coastal Management (OCM) received unclassified bathymetric files in ASCII format and classified (ASPRS classifications of 1 (unclassified) and 2 (ground)) topographic files in las format. The files contained LiDAR intensity and elevation measurements. OCM performed the following processing on the data for data storage and Digital Coast provisioning purposes: 1. The bathymetric lidar points were converted from ASCII format to las format. 2. All data were converted from NAVD88 heights to ellipsoid heights using GEOID03. 3. The bathymetric lidar data points were classified according to the ASPRS LAS 1.2 classification scheme as 11 (bathymetry). 4. The LAS header fields were sorted by latitude and updated.

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:
- 1.6. Type(s) of data
- 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
- 7.4. 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/50083

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/#/lidar/search/where:ID=1064
https://coast.noaa.gov/htdata/lidar4_z/geoid18/data/1064

7.3. Data access methods or services offered:
This data can be obtained on-line at the following URL: https://coast.noaa.gov/dataviewer;

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.