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:

2022 USF Topobathymetric Lidar: Tampa Bay, FL

1.2. Summary description of the data:

These files contain topographic and bathymetric lidar elevations generated from data collected by the RAMMS lidar system around the Tampa Bay FL area. Data was collected by Fugro for the University of South Florida. The RAMMS system integrates a bathymetric lidar sensor and a digital camera on a single remote sensing platform for use in coastal mapping and charting activities. Lidar data has been processed onto LAS v1.4 format, cleaned and classified. Spatial reference datums is NAD83 (2010). Depths and elevations are Elipsoidal.

Additional classification of terrestrial points was by NOAA using automated software.

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:

2022-01-05 to 2022-01-11

1.5. Actual or planned geographic coverage of the data:

W: -82.8036, E: -82.6722, N: 27.8161, S: 27.5144

1.6. Type(s) of data:

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

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:
- The data was collected using the RAMMS LiDAR system. It is owned by Fugro and

operated through contract. The system collects bathymetric lidar data at 30 Hz lidar pulse and generates up to 900 beams per pulse. RGB imagery was collected with a PhaseOne iXM-50 digital camera. Aircraft position, velocity and acceleration information were collected through POS AV 510 v6 equipment. All raw data streams were transferred to the field office for downloading and processing in RAMMS Processing Module software. Aircraft position data were processed using POSPac software and the results were combined with the lidar data to produce 3D positions for each beam points. Upon QA/QC in the Terrasolid software suite, point cloud data was classified into bathytmetry, topography and other non-terrain classes. All valid topography are class 2; depths are class 40 and 43.
- 2023-07-14 00:00:00 - The data were received in LAS 1.4 format from the University of South Florida. The data generally appeared to follow the topobathy domain profile, but also contained undefined lidar classifications. The Class histogram for the dataset was: Class Number and Point count: 0 378141361 1 19235839 2 117 7 4786920 8 1 9 6407 12 168653570 18 511160148 22 1204 30 218426 40 407816951 41 844187621 42 1607 45 168647432 This does not agree with the previous step's statement that all valid topography are class two. Examination of the data also revealed that class 7 and class 18 (low noise and high noise) are essentially flipped in the water areas, with low noise near the water surface and high noise below the sea floor. Class 12 appeared to be a subset of the points over terrestrial areas, but was clearly not a ground class. All points in classes 0, 1, 8, 12, 22, and 30 were recombined into class 1 and extracted into separate files. Automated processes to identify noise and ground points (lasnoise and lasground_new from LAStools) for the separated files. The files separated by class were re-merged after classification. Points marked as withheld were dropped from the dataset. These were typically on noise points. Other classification flags may have limited validity. For example, the flag keypoints was found on many unclassified points. For ingest into the Digital Coast Data Access Viewer, the points were converted to geographic coordinates and cloud optimized point cloud (COPC) format. The final classification histogram is: class count 1 434155871 2 131616712 7 4669842 9 6407 18 511145834 40 407816951 41 844187621 42 1607 45 168647432 (Citation: Point Cloud produced by Fugro)

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
- 5.2. Quality control procedures employed
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.4. Approximate delay between data collection and dissemination
- 8.3. Approximate delay between data collection and submission to an archive facility

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/70295

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:
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=9857/details/9857
https://noaa-nos-coastal-lidar-pds.s3.amazonaws.com/laz/geoid18/9857/index.html

7.3. Data access methods or services offered:
Data is available online for bulk or custom downloads

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)
NCEI_CO

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
Data is backed up to tape and to cloud storage.

9. Additional Line Office or Staff Office Questions

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