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:

December 2002 Lidar Point Data of Southern California Coastline: Dana Point to Point La Jolla

1.2. Summary description of the data:

This data set contains lidar point data (latitude and longitude) from a strip of Southern California

coastline (including water, beach, cliffs, and top of cliffs) from Dana Point to Point La Jolla. The data set was created by

combining data collected using an Optech Inc. Airborne Laser Terrain Mapper (ALTM) 1225 in combination with geodetic quality

Global Positioning System (GPS) airborne and ground-based receivers. The Bureau of Economic Geology, the University of Texas

at Austin owns and operates an ALTM 1225 system (serial number 99d118). The system was installed in a single engine Cessna 206

(tail number N4589U) owned and operated by the Texas State Aircraft Pooling Board. The lidar data set described by this document

was collected on 3-4 December 2002 (33702 and 33802) between 20:33 and 23:29 UTC on 33702 and 20:26 and 21:19 UTC on 33802

(see Lineage, Source_Information, Source_Contribution for pass information). Conditions on both days were clear skies, no fog or

low clouds. A second flight on 33802 was required due to low cloud formation on 33702. 99d118 instrument settings for this

flight were; laser pulse rate: 25kHz, scanner rate: 26Hz, scan angle: +/-20deg, beam divergence: narrow (wide for offshore pass),

altitude: 700-820m AGL, and ground speed: 78-112kts. Two GPS base stations (Scripps pier and San Onofre Power Plant, see Lineage,

Source_Information, Source_Contribution for coordinates) were operating during the survey. Data represented is all points

including terrain, vegetation, and structures. This data also contains returns from the water surface. No processing has been

done to remove returns from terrain, vegetation, structures or water surfaces.

Original contact information:

Contact Name: Julie Thomas/Randy Bucciarelli

Contact Org: SCBPS/CDIP, Scripps Institution of Oceanography

Title: Project Managers

Phone: 858-534-3032

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:
2002-12-03 to 2002-12-04

1.5. Actual or planned geographic coverage of the data:
W: -117.724831, E: -117.249831, N: 33.47133, S: 32.83383

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:
- 2002-12-03 00:00:00 - 1. Transfer raw ALTM 1225 flight data, airborne GPS data collected at 1 Hz using Ashtech receiver, and ground-based GPS data collected at 1 Hz using Ashtech and Trimble 4000SSI receivers to NT workstation. Generate decimated lidar point file from above three data sets using Optech's Realm 2.27 software. This is a 9-column ASCII data set with the following format: time tag; first pulse Easting, Northing, HAE; last pulse Easting, Northing, HAE; first pulse intensity; and last pulse intensity. View decimated lidar point file to check data coverage (i.e. sufficient overlap of flight lines and point spacing). 2. Compute base station coordinates using National Geodetic Survey's PAGES software. Computed aircraft trajectories for both base stations using National Geodetic Survey's KINPOS software. Coordinates for base stations and trajectories are in the International Terrestrial Reference Frame of 2000 (ITRF2000) datum. Trajectories from both base

stations were merged into one. Weighting for trajectory merge is based upon baseline length (distance from base station) and solution RMS. Transformed trajectory solution from ITRF2000 to North American Datum of 1983 (NAD83). 3. Use NAD83 trajectories and aircraft inertial measurement unit data in Applanix's POSProc version 2.1.4 to compute an optimal 50Hz inertial navigation solution. 4. Substitute the aircraft position and attitude information from the inertial navigation solution into Realm 2.27. Extract calibration area data set from lidar point file for quality control and instrument calibration checks. If necessary, use multiple iterations to adjust calibration parameters (pitch, roll, and scale) and reprocess sample data set. Determine and apply bias corrections based upon ground GPS. Then generate entire lidar point file (9-column ASCII file). 5. Use the Geiod99 geoid model to convert from Height Above the GRS80 ellipsoid to elevations with respect to the North American Vertical Datum 88 (NAVD88). 6. Parse the 9-column lidar point file into 3.75-minute quarter-quadrangle components. There are some points in the file that only contain 5-columns. These are points that either the first or last pulse was not recorded. 7. UTM Easting and Northing were converted to geodetic latitude and longitude with respect to the GRS80 ellipsoid. The conversion was computed using the TMGEOD and TCONPC fortran subroutines written by T. Vincenty (NGS). Each record contains 9 columns of data: time tag (seconds in the GPS week), first return Latitude, first return Longitude, first return NAVD88, last return Latitude, last return Longitude, last return NAVD88, first return intensity, and last return intensity. In some cases either the first or last return values may be missing (5 columns). Latitude and longitude are in decimal degrees with nine significant digits to retain the 0.01m resolution of the UTM coordinates. West longitude is negative and north latitude is positive. 8. The eighteen UTM quarter-quad files were re-organized into eleven files. UTM quarter-quads files that were delineated by the same upper and lower latitude bounds were concatenated. The lat-long files were named by the month-year of the survey (e.g. dec02) and the lower latitude bounding the quarter-quad. Processing occurred 20021203-20031222.
- 2003-04-18 00:00:00 - Created initial metadata
- 2007-07-24 00:00:00 - The NOAA Office for Coastal Management (OCM) received files in ASCII format. The files contained LiDAR intensity and elevation measurements. OCM performed the following processing on the data to make it available within the LiDAR Data Retrieval Tool (LDART). 1. Data returned to ellipsoid heights from NAVD88, using GEOID99. 2. Data converted to LAS format. 3. The LAS data were sorted by latitude and the headers were 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/50003

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=47
https://coast.noaa.gov/htdata/lidar1_z/geoid18/data/47

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.