

NGDA Dataset Report

Official NGDA Title: U.S. Coastal Lidar Elevation Data - Including the Great Lakes and Territories, 1996 - present

Metadata Record Title: U.S. Coastal Lidar Elevation Data - Including The Great Lakes And Territories, 1996 - Present

A-16 NGDA Theme: Elevation

Executive NGDA Theme Champion(s):

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Metadata:

Registration Status: Complete

Registered on 4/22/2015

GeoPlatform Link*: <https://www.geoplatform.gov/node/243/409dd0c4-398a-4e92-856a-b81177e05c1f>

Data.gov Metadata Link*: <http://catalog.data.gov/harvest/object/2de3d2fe-3ebc-4368-b134-3cda4cf373d0/html>

*If the metadata has been updated and reharvested after publication of this report, the link may no longer be valid. The dataset may be searched for manually in Data.gov or GeoPlatform.gov.

NGDA Lifecycle Maturity Assessment (LMA) Report

Time Frame:

Baseline assessment responses include dataset activities from 2006 to 2015.

LMA Submission:

Status: Complete

Date: 9/30/2015

Extension Requested: No

LMA Reviewer(s):

Supervisor: Did not review

Theme Lead: Did not review

Executive Champion: Did not review

SAOGI*: Did not review

Other: Anne Ball, NOAA OCM

LMA Verifier:

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Attachments:

To get access to any attachments referenced in the report, email the LMA Help Desk at NGDA_LMA_help@fgdc.gov. Please use the subject "Dataset Report Attachment(s)" and indicate the associated official NGDA title.

*Senior Agency Official for Geospatial Information (SAOGI)

Lifecycle Maturity Assessment (LMA) Summary

Overall Maturity:

Optimized; Established

General Questions: 91%

Optimized; Established

Stage 4 - Access: 100%

Optimized; Established

Stage 1 - Define/Plan: 100%

Optimized; Established

Stage 5 - Maintain: 100%

Optimized; Established

Stage 2 - Inventory/Evaluate: 100%

Optimized; Established

Stage 6 - Use/Evaluate: 88%

Mature; Consistent

Stage 3 - Obtain: 76%

Mature; Consistent

Stage 7 - Archive: 100%

Optimized; Established

NGDA Dataset Maturity Definitions:

How To Calculate Maturity: https://www.geoplatform.gov/sites/default/files/How_to_Calculate_Maturity.pdf

Maturity	Maturity Characteristics for All Lifecycle Stages
Optimized; Established Rank = 5	Dataset meets virtually all business needs of all users. The dataset is considered authoritative by owners and secondary users. It is curated across all stages of the approved lifecycle. Future needs are defined on a regular basis and resources for addressing both current and future business requirements are available.
Mature; Consistent Rank = 4	Dataset meets all the business needs of the primary owner and most of the secondary users. The dataset is curated and used as authoritative by the primary owner. Dataset is used widely by secondary users actively engaged in sustaining the dataset. Future needs are identified and steps are planned to address these. All stages are supported and reviewed on a recurring basis. The dataset is well managed in relation to the approved lifecycle.
Managed; Predictable Rank = 3	Dataset meets a significant number of the business needs of the primary owner and is widely used as an authoritative resource by secondary users. Benchmark activities are occurring in at least four of the approved lifecycle stages. Management practices in relation to the approved lifecycle is moderate but consistent. Dataset is integrating changing business requirements in lifecycle stages impacting overall maturity.
Transition; Transformation Rank = 2	Dataset meets business needs of the primary owner and has moderate use by secondary users. Benchmark activities are occurring in at least three stages. Efforts to integrate funding, include partners, and obtain data are not supported in a sustained manner. Management practices in relation to the stages of the approved lifecycle is limited.
Planned; Initial Development Rank = 1	Dataset limited in meeting business needs of the primary owner. Benchmark activities in the approved lifecycle are just starting to consider secondary uses, partnerships are forming to support additional dataset uses. Dataset development is in a very early stage. Minimal or limited management against the benchmarks in the approved lifecycle.
No Activity Rank = no activity	Dataset meets project or local business needs of the primary owner, secondary or additional uses or users were not considered, not recognized as an authoritative data or is part of a similar dataset. Not managed to any of the benchmarks in the approved lifecycle.

General Questions for All Stages

1) Is there a recurring process to obtain funding for all lifecycle stages of this dataset?

Answer: Funding support exists but is not adequate to meet known requirements, most lifecycle stages are supported.

Justification Comment:

Attachment(s): 0

This dataset is supported for Tier 1-2 Open Archive Information System lifecycle archive through base-funding. This enables the basic receiving, inventorying, and archiving of the data. Any improvement, quality assessment, product development or enhanced access is done with additional project funds or other resources.

2) Is there a process in place to ensure that open government and transparency guidelines are followed in all lifecycle stages for this dataset?

Answer: Process is published as appropriate with respect to sensitivity requirements, process is transparent, published appropriately.

Justification Comment:

Attachment(s): 0

Management of this dataset follows all scientific data management per the NOAA Administrative Order "NAO 202-735D: Scientific Integrity." NAO 202-735D outlines how NOAA complies with Open Government and Transparency requirements for all scientific data.

See:http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/202-735-D.html

3) Are there processes and tools in place so that staff are sufficiently knowledgeable to ensure a continuity of the dataset for all stages of the lifecycle, especially during staffing transitions?

Answer: Processes and tools to ensure dataset continuity are in place and implemented for all lifecycle stages.

Justification Comment:

Attachment(s): 0

Continuity of archived data is assured through staff training and internal documentation of all relevant processes.

STAGE 1 - Define/Plan

4) Are user and business requirements defined and formalized?

Answer: A recurring process is in place, including defining new partner and stakeholder business needs as they arise, and is fully implemented.

Justification Comment:

Attachment(s): 0

Archive submission agreement between the data center, NOAA National Centers for Environmental Information (NCEI) and the data provider, NOAA Office for Coastal Management (OCM), is reviewed bi-annually/as-needed and edited to reflect necessary changes.

5) How are partners/stakeholders involved in the requirements collection process?

Answer: A recurring process is in place, including defining new partner and stakeholder business needs as they arise, and is fully implemented.

Justification Comment:

Attachment(s): 0

Archive submission agreement between the data center, NOAA National Centers for Environmental Information (NCEI) and the data provider, NOAA Office for Coastal Management (OCM), is reviewed bi-annually/as-needed and edited to reflect necessary changes.

6) Is there a quality assurance process for the dataset?

Answer: Quality assurance published as appropriate with respect sensitivity requirements.

Justification Comment:**Attachment(s):** 0

Data submitted for archive are assumed to have been subjected to QA/QC process during data acquisition/development. These processes are typically highlighted in associated metadata records.

7) Is there a process to evaluate the sensitivity, privacy, and confidentiality of this dataset?

Answer: Sensitivity, privacy, and confidentiality evaluations fully implemented, reviewed and updated on a recurring basis.

Justification Comment:**Attachment(s):** 0

Sensitive data are typically handled on a case-by-case basis. Sensitive data is flagged as such and archived within "nonpublic" directories.

8) Are defined data standards used in collecting, processing, and/or rendering the data?

Answer: Standards fully implemented documented and published as appropriate.

Justification Comment:**Attachment(s):** 0

Data are typically maintained and disseminated (via NOAA OCM Digital Coast), as well as submitted to NOAA NCEI and archived, according to an industry-standard data format specification developed to enable efficient interchange of airborne lidar data.

See: <http://www.asprs.org/Committee-General/LASer-LAS-File-Format-Exchange-Activities.html>

<http://coast.noaa.gov/digitalcoast/>

STAGE 2 - Inventory/Evaluate

9) Is there a process for determining if data necessary to meet requirements already exist from other sources (either within or outside the agency) before collecting or acquiring new data?

Answer: Process for determining appropriate data is being reused fully implemented, reviewed, and updated on a regular basis.

Justification Comment:**Attachment(s):** 0

The lidar data disseminated via Digital Coast and archived at NCEI are included in the U.S. Interagency Elevation Inventory, a multi-agency effort to identify when and where topographic and bathymetric data has been collected, as well as basic details regarding data quality, access, etc. There are also ongoing efforts to increase collaboration and improve data acquisition efficiency through the Interagency Working Group on Ocean and Coastal Mapping and 3D Elevation Program (USGS); much of data collected by constituent agencies eventually ends up disseminated by OCM and archived at NCEI.

See: <http://coast.noaa.gov/inventory/>

STAGE 3 - Obtain

10) Is there a process for obtaining data in relation to this dataset?

Answer: Process is being implemented.

Justification Comment:**Attachment(s):** 0

New surveys are constantly added to the coastal lidar dataset; this work is performed by NOAA OCM. Newly added data may include that which has been recently acquired, or legacy data that has gone "undiscovered" until a certain point in time. Once added to the publicly available dataset, the surveys are sent to NCEI for long term archive.

NOAA OCM also uses a contract vehicle, the Coastal Geospatial Services Contract for lidar acquisitions.

See: <http://coast.noaa.gov/idiq/geospatial.html>

11) Is the metadata in a FGDC endorsed geospatial metadata standard?

Answer: Metadata is available in a format endorsed by the FGDC, it fully describes the dataset and provides all the information required to make the dataset discoverable, accessible, and usable.

Justification Comment:

Attachment(s): 0

Metadata for all publicly accessible lidar surveys currently disseminated by NOAA OCM and archived at NOAA NCEI adheres to the FGDC endorsed metadata content standards. Archived metadata has been converted from CSDGM to ISO-19115 metadata standard (converted from CSDGM compliant records), with ongoing efforts to transition metadata publicly delivered by NOAA OCM to ISO-19115.

See: <http://coast.noaa.gov/data/Documents/Metadata/harvest/Lidar/>

12) How complete is the geographic coverage as defined in the requirements for the dataset?

Part 1 Answer: Business requirement targets are on track, milestones are being met.

Part 2 Answer: Dataset has presently attained the greatest geographic coverage as defined by the current requirements or roughly 100%.

Justification Comment:

Attachment(s): 0

Neither of these metrics are directly applicable to the dataset, at least from the archive perspective. All data submitted to NCEI is archived upon receipt. The coastal lidar dataset is comprised of hundreds of individual surveys collected over multiple decades in a variety of locations. Surveys collected as part of a particular program (such as the US Army Corps' of Engineers National Coastal Mapping Program or the NOAA National Geodetic Survey Shoreline Mapping Program) may have specific coverage requirements; these data contribute to the overall "collection level" dataset that is disseminated through the Digital Coast and archived at NCEI.

STAGE 4 - Access

13) Do you have a process for providing users access to the data in an open digital machine readable format?

Answer: User access process is fully implemented, data is available, process is reviewed and updated on a recurring basis.

Justification Comment:

Attachment(s): 0

NOAA OCM and NCEI both maintain a variety of webpages to facilitate data discovery and access. The data is available for download via the Digital Coast Data Access Viewer, as well as thru bulk ftp download.

<http://coast.noaa.gov/dataviewer/>

<http://coast.noaa.gov/dataregistry/search/collection/info/coastallidar>

<https://www.ngdc.noaa.gov/mgg/bathymetry/lidar.html>

STAGE 5 - Maintain

14) Is there a maintenance process for updating and storing the dataset?

Answer: Dataset maintenance process is fully implemented and processes are reviewed and periodically updated.

Justification Comment:

Attachment(s): 0

The dataset is constantly being updated in terms of coverage, as new data is added and disseminated via Digital Coast on a regular basis. As the data is made publicly available, it is subsequently sent to NCEI for archive. Archived files are periodically evaluated to ensure continued usability. Submission agreement between NCEI and OCM is periodically assessed and edited as needed.

15) Is there an error correction process as part of dataset maintenance?

Answer: Error correction process includes user notification, process reviewed on a recurring basis.

Justification Comment:

Attachment(s): 0

Errors are typically identified in the data acquisition/development stage and corrected before public dissemination and archive; all archived data assumed to have gone through QA/QC process. Any potential problems in the data limiting its use are typically highlighted in the metadata/documentation. If problems persist in the data beyond the "upstream" QA/QC process and are actually discovered, reprocessing is warranted. Users who have downloaded the data via Digital Coast are alerted and the data are re-archived at NCEI, with the erroneous data first deleted to reduce confusion. All metadata records would also be edited to reflect changes made to the data.

STAGE 6 - Use/Evaluate

16) Is there a process to determine if the dataset meets user needs?

Answer: Process is fully implemented and repeated on a recurring basis.

Justification Comment:

Attachment(s): 0

OCM works with data users (state and local coastal managers, for example) to ensure the data meets their needs. They do this via user listening sessions and other feedback mechanisms.

Constant communication between data provider, NOAA OCM, and the data center, NOAA NCEI, ensures efficient archival process. Necessary changes are made to submission agreement if warranted.

The dataset reflects the "best available" data for the coastal areas of the US.

17) Is there a process to provide users information on how to access and properly use the dataset?

Answer: Process is fully implemented supporting access and proper use, process is reviewed on a recurring basis.

Justification Comment:

Attachment(s): 0

As the data dissemination point, NOAA OCM provides survey specific metadata with data publicly delivered, containing all pertinent information for a particular survey.

See: <http://coast.noaa.gov/data/Documents/Metadata/harvest/Lidar/>

Documentation providing a general overview of coastal lidar data has been developed at OCM; OCM also provides various training programs to help data end users.

See: http://coast.noaa.gov/digitalcoast/_/pdf/lidar101.pdf

Access and use information provided on the NCEI lidar web site, which links to the data dissemination web application maintained by the data provider, NOAA OCM.

See: <https://www.ngdc.noaa.gov/mgg/bathymetry/lidar.html>

18) Are the business processes and management practices assessed to meet changing technology?

Answer: Assessment process implementation started for taking advantage of changing technology.

Justification Comment:

Attachment(s): 0

Full review of archived data holdings began in FY14, resulted in the identification of antiquated data formatting for numerous surveys, as well as some corrupted data submission packages. "Problematic" data were re-processed and/or re-submitted by the data provider as needed. Some of this work is still

ongoing.

STAGE 7 - Archive

19) Is there an archiving process for the dataset?

Answer: Archival and disposition processes are fully implemented.

Justification Comment:

Attachment(s): 0

Archive submission agreement between OCM and NCEI reviewed bi-annually/as-needed and edited to reflect necessary changes. NCEI performed in-depth assessment/audit of the lidar archive in 2014 to determine status as a trusted-data repository.