

NGDA Dataset Report

Official NGDA Title: The National Agriculture Imagery Program (NAIP) Imagery

Metadata Record Title: National Geospatial Data Asset (NGDA) NAIP Imagery

A-16 NGDA Theme: Imagery

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Metadata:

Registration Status: Complete

Registered on 11/10/2014

GeoPlatform Link*: <https://www.geoplatform.gov/node/243/3a1a8891-1210-4ac7-bbd0-0b7f8c0cd8b9>

Data.gov Metadata Link*: <http://catalog.data.gov/harvest/object/27dcbd9f-6b8f-45d0-ab21-ac4f70de9fe9/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 based on start time of 2015 when business requirements were updated

LMA Submission:

Status: Complete

Date: 10/14/2015

Extension Requested: Yes

LMA Reviewer(s):

Supervisor: Williams, Kent kent.williams@slc.usda.gov

Theme Lead: Hall, Shirley Shirley.Hall@wdc.usda.gov

Executive Champion: Did not review

SAOGI*: Did not review

Other: Did not review

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: 100%

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: 100%

Optimized; Established

Stage 3 - Obtain: 87%

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 is part of agency budget on a recurring basis, funding is consistent and tied to business processes, and supports all lifecycle stages.

Justification Comment:

Attachment(s): 0

Funding for the NAIP dataset is accounted for within FSA's geospatial investment but can be impacted by overall agency funding constraints. Federal partners, the USDA/NRCS, USDA/FS and USGS also contribute funds yearly, but their contribution may also be impacted by overall funding constraints. Other Federal or state partners may contribute on a year specific basis if they are funding a specific "buy-up" transaction within the program

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

Contract data, acquisition progress, data services and availability are posted for government and public access on internet at <http://www.fsa.usda.gov/programs-and-services/aerial-photography/support-documents/index>. NAIP is an NGDA Dataset Theme. It is thus represented with entries on data.gov and geoplatform.gov with respect to current year acquisitions and planned (Marketplace) acquisitions NAIP partnership coordinator is involved in FGDC committees, including NDOP. This ensures the dataset is available to a wide range of agencies and organizations.

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

NAIP dataset meetings are normally held weekly so all pertinent staff are aware of current processes and any changes to dataflow. Updates are provided to Department leadership during meetings to ensure all branches are aware of current NAIP status. Updates to documentation occur on a regular ongoing basis and are stored on the network to allow high visibility to staff. NAIP processing tools are reviewed and updated as necessary. Archive process documentation is well documented and available for review by staff.

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): 1

The NAIP dataset has well defined requirements and are updated yearly and as needed. NAIP leaders work with national and state representatives on an ongoing basis to ensure that existing and new agency requirements are being met. NAIP requirement surveys are performed approximately every three years. NAIP surveys for current year performance were held previously but are not done now due to changes in how the imagery is typically accessed by the state and county personnel. NAIP and other imagery program meetings are held throughout the year verifying the dataset meets business requirements. Modifying data requirements is done as needed.

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

Partner/stakeholder input is considered very important to the NAIP dataset. NAIP partnership coordinator is involved with multi-agency coordination groups such as NDOP and NDEP. Contract requirements are reviewed and comments from other agencies are considered for contract specifications. Information and feedback is provided in monthly FSA GIS teleconferences.

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

NAIP imagery is thoroughly inspected before it is ingested and added to the Archived dataset. The contractors perform Quality Control on the products before they arrive. Upon arrival the imagery is scanned to ensure compliance to the contracted technical specifications. A thorough Quality Assurance is then run on individual files to verify that the data meets contracted specifications. The quality inspection results are provided to FSA and other agencies. This is done through documentation and various meetings.

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

This dataset is not considered sensitive or confidential and is available to the general public. Data specifications are reviewed to determine if any information is sensitive. Coordination occurs with military installations and others with limited access areas to ensure no sensitive data is acquired and or made available.

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): 2

Contract specifications pertaining to the collection of the imagery for the NAIP dataset (including Imagery requirements, deliverables, and process for deliveries) are reviewed yearly before contracts are awarded. Specification can be found is the USDA Digital File format Spec and the Aerial Photography Field Office USDA Digital Imagery Quality Specification documentation.

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

FSA works with the National Digital Orthoimagery Program (NDOP) committee to check for similar datasets or acquisition programs. NAIP is an FGDC NGDA dataset theme and as such has entries for current NAIP on the Geoplatform, and planned NAIP acquisition on the Geoplatform Marketplace. Entries can be researched by government agencies and the public. Links to these entries are shown below.

Planned NAIP Acquisitions: <https://www.geoplatform.gov/node/243/29555cb0-aefe-43c5-b48b-a8a720c7fe16>

Current NAIP: <https://www.geoplatform.gov/node/243/3a1a8891-1210-4ac7-bbd0-0b7f8c0cd8b9>

These entries can also be found by going to <http://geoplatform.gov> and searching on "NGDA NAIP".

STAGE 3 - Obtain

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

Answer: Process is fully implemented, reviewed and updated on a regular basis.

Justification Comment:

Attachment(s): 0

NAIP data can be obtained through various resources. Data can be downloaded from the Geospatial Data Gateway which provides easy access to imagery from the dataset for all available years. This service is available to the public. Image Services are also available to Federal Agencies and the general public. NAIP data can also be purchased from the Agency directly. A copy of all NAIP data is provided directly to the funding partners.

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): 1

NAIP metadata is fully FGDC CSDGM compliant. Metadata for NAIP dataset is provided in both txt and xml format. Metadata standards used are FGDC-STD-001-1998.

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

Part 1 Answer: Business requirements for cyclic updates identified and a process is in place.

Part 2 Answer: Data set is roughly 50% of the geographic coverage is presently complete per current requirement.

Justification Comment:

Attachment(s): 0

FSA has a business requirement for complete CONUS coverage on an annual basis. Current funding only supports a two-year cycle and therefore we are only at 50% completeness of CONUS coverage. FSA does have a business requirement for non-CONUS areas of interest but is not included in the NAIP dataset.

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

Data is in standard data formats (GeoTIFF, MG3, and XML) that can easily be used in geospatial and other software.

Data can be downloaded from Data Gateway and several other national, state, academic, and other websites. <https://gdg.sc.egov.usda.gov/>

Data can be purchased from local Agency and other options.

Data can be viewed and incorporated using a variety of image services.

Data access information is provided to communities of interest. These include coordination groups such as NDOP; academic, industry, government groups such as AGRC, URISA, Esri UC, and many state level groups; and all groups, including the general public through information on the FSA/APFO website, journal reports, and so forth.

EO 13642: There are 1317 datasets found for "NAIP" found on data.gov and 61 datasets found for "naip download".

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

Coordination and requirements discussed within internal departments, NAIP team meetings, SharePoint site, and so forth. The dataset is stored and backed up on our Sun/STK SL8500 Tape Library. Three copies are created of all data. One is stored off-site. As new generations of tape media and drives are released, they are evaluated and when purchased the data is migrated to the newer tapes. Tape and media drives which store the data are updated as new technology becomes available, is tested, and purchased. The tape library is monitored by assigned staff and is under a 24/7 maintenance contract.

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

Over the years there have been a number of methods for reporting NAIP errors or problems. This now includes AGOL sites for viewing and reporting current and prior year issues. 2015 NAIP: <https://usdaonline.maps.arcgis.com/apps/webappviewer/index.html?id=f8c593f5a991453bb57f384721102e8a>

Well established Inspection, record keeping, and reporting processes are in place. For example:

- A One year warranty on imagery in which vendors must correct identified problems.
- Well established processes and roles within the agency for reporting and correcting errors/problems.
- ESA, funding partner agencies can report issues and receive corrected 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

Requirements coordination and feedback occurs with FSA, funding partners, and others. This includes regular discussions with funding partners, formal meetings (USDA Imagery Planning meetings, NDOP, etc.) attendance at industry conferences, etc.

Requirements are clearly noted in the task order.

The NAIP Dataset has a very thorough system in place for inspecting the data

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

FSA has implemented the following support for the NAIP dataset:

- Training and official instructions and notices for FSA personnel.
- Regular updates are made to the FSA Handbook 1-AP
- Info sheets and instruction available on the FSA/APFO website at <http://www.fsa.usda.gov/programs-and-services/aerial-photography/support-documents/information-sheets/index>
- Presentations are made and coordination occurs with end user organizations such as: NDOP, NDEP, ASPRS, and national and state geospatial organizations and conferences.
- Image services and websites and provide information and access to NAIP data

<http://www.fsa.usda.gov/programs-and-services/aerial-photography/imagery-programs/naip-imagery/>
•Geoplatform entries exist for Current NAIP and Planned NAIP Acquisitions. These entries can be researched by government agencies as well as the public. They contain information about the imagery, links to access the imagery, contact information, and additional metadata.

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

Answer: Assessment process is fully implemented for taking advantage of changing technology, process is reviewed on a recurring basis.

Justification Comment:

Attachment(s): 0

The following assessments are implemented for NAIP:

- Information is shared and discussed with coordination groups such as NDOP, USDA Imagery Planning Meeting, FGDC Geodetic Control, and others.
 - NAIP team members and related personnel often research and share information.
 - New technologies, formats, and so forth are often evaluated by FSA personnel as well as interagency or industry groups. Based on these recommendations changes may or may not be made to NAIP.
 - Each year the specifications and technologies are reviewed, researched, and modified when needed.
 - NAIP personnel attend conferences, training, meetings, and other events to learn about new options.
 - Nearly every year pilot projects are implemented as part of the NAIP task order. This can enable new technologies to be tested without putting the entire program at risk.
 - Cost saving measures are considered as well. This can include overall costs as well as options for improved products, more coverage, improved delivery times, and so forth without cost increases.
 - The NAIP contract and task orders allow for innovation by the vendors while inspections and approval processes are in place ensuring that requirements are met.
 - The NAIP has taken advantage of new technologies since its inception in 2002. It has also enabled new or improved technologies by providing a consistent contract and funding which allows vendors to innovate and invest.
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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

Archiving processes are in place for NAIP and other data sets.

Several individuals from NAIP Dataset staff represent FSA on FGDC and other historical data organizations.

Redundant copies of all data are maintained. This includes storage offsite and on a Sun/STK SL8500 Tape Library.

Automated and non-automated systems are in place and used for archiving data.

Information sharing and coordination occurs between NAIP Dataset personnel and NARA and other record keeping organizations.

NAIP information is maintained on the Geospatial Platform.

NAIP Dataset staff coordinates with and in some situations maintains backup copies of data with other federal agencies such as NRCS NGCE and USGS Eros Data Center.

Data formats are selected that will enable long term usability.

Regulations regarding archiving and disposal of data are consulted and followed as appropriate.