

# NGDA Dataset Report

**Official NGDA Title:** NEXRAD (NEXt-Generation RADar) Products

**Metadata Record Title:** NOAA Next Generation Radar (NEXRAD) Products

**A-16 NGDA Theme:** Climate and Weather

## Executive NGDA Theme Champion(s):

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## Metadata:

**Registration Status:** Complete

**Registered on** 3/12/2015

**GeoPlatform Link\*:** <http://www.geoplatform.gov/node/243/ec24b961-4c9c-4a7f-bcf2-da48550078b0>

**Data.gov Metadata Link\*:** <http://catalog.data.gov/harvest/object/3b8b48a8-5290-4467-8870-b748e6e86c16/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:

1991-06-05 to Present

## LMA Submission:

**Status:** Complete

**Date:** 10/28/2015

**Extension Requested:** Yes

## LMA Reviewer(s):

**Supervisor:** nancy ritchey

**Theme Lead:** Did not review

**Executive Champion:** Did not review

**SAOGI\*:** Did not review

**Other:** Did not review

## LMA Verifier:

**Name:** Nancy Ritchey

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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](mailto: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: 89%

**Mature; Consistent**

Stage 3 - Obtain: 100%

**Optimized; Established**

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](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

The NEXRAD Program is supported by the NOAA NWS Radar Operations Center.

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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

See the NOAA Radar Operations Center, NEXRAD WSR-88D Program Documentation for system concepts, responsibilities, and procedures, at:

<https://www.roc.noaa.gov/wsr88d/WSR88DProgram.aspx>

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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

See NEXRAD WSR-88D Program charters, at:

<https://www.roc.noaa.gov/wsr88d/WSR88DProgram.aspx>

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## 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

See the Next-Generation Radar (NEXRAD) Weather Surveillance Radar 88 Doppler (WSR-88D) Configuration Control Board (CCB) Charter:

<https://www.roc.noaa.gov/wsr88d/PublicDocs/CM/ccbchrt.pdf>

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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

Oversight of the NEXRAD program budget, policy, resource commitment, and management guidance is provided by the Program Management Council throughout the life cycle of the WSR-88D program to ensure that both common and unique agency requirements are addressed and resolved

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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

The Integrated Logistics Support Plan (ILSP) identifies organizational relationships and responsibilities and describes the basis for agreements among various agencies for the management and technical support of the WSR-88D Program. The plan identifies support activities to be accomplished, and references how, when, and by whom they will be accomplished. This plan includes detailed

information for site personnel on the items which will be removed and replaced by special depot level teams, the recommended on-site spares, support equipment, and consumables. Specifically, the Depot Repair Support Plan (Appendix B) establishes the National Weather Service (NWS)'s National Reconditioning Center (NRC) as the primary activity for depot level maintenance, reconditioning, and quality control of the WSR-88D.

<https://www.roc.noaa.gov/wsr88d/PublicDocs/ILSPwithAdminUpdatesApril207.pdf>

Also, the following services are available to WSR-88D system users to ensure quality:

- Direct analysis of radar problem reports and solution development.
- Management of radar test programs for approved engineering changes.
- Coordinate reviews of all radar-related Engineering Change Proposals, Time Compliance Technical Orders, test plans, and technical manual changes.
- Functional design management for the transmitter, receiver, antenna, pedestal and all associated microwave components.
- Engineering support to field operations for all radar-related calls.

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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, private and confidential information is not included in the public dataset. All processes are managed by the NEXRAD Program Management Council (PMC).

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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

The NEXRAD Program applies standards for network architecture and data product generation for operations and maintenance of the radar sites. See related:

<https://www.roc.noaa.gov/wsr88d/Engineering/ENGIndex.aspx>

[https://www.roc.noaa.gov/wsr88d/Level\\_II/Level2Info.aspx](https://www.roc.noaa.gov/wsr88d/Level_II/Level2Info.aspx)

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## 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

As a multi-agency Federal program, the NEXRAD PMC ensures it is unique in producing the most advanced radar data with complete network coverage.

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## 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

The NEXRAD Program produces and provides multiple processing levels of radar data, ranging from raw (Level I) to base quantities (Level II) and derived products (Level III). Calibration data are also available.

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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

ISO metadata link: NOAA NEXt-Generation RADar (NEXRAD) Products - National Geospatial Data Asset (NGDA) NEXRAD (NEXt-Generation RADar) Products

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

**Justification Comment:**

**Attachment(s):** 0

All available radar sites are acquired and operated under the multi-agency Federal program.

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## 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

The archived data record is made available through an online search and order interface, and is continually updated with operational data. Plans are underway to make the full record available online through Air Weather Service (AWS) as part of the Big Earth Data Initiative (BEDI) project.

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## 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

See the NEXRAD list of all active time compliance technical orders, Modification/Maintenance/Software Notes, Electronic Engineering Modification, Site Publication Bulletins: <https://www.roc.noaa.gov/wsr88d/Program/TechManPubsect2b.aspx>

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**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

For operational data issues, see the Hotline at the Radar Operations Center (ROC): <https://www.roc.noaa.gov/wsr88d/Operations/hotline.aspx>  
Archive data and metadata corrections are managed by the data stewards at NCEI.

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## STAGE 6 - Use/Evaluate

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

**Answer:** Process is complete and being implemented on ad hoc basis.

**Justification Comment:**

**Attachment(s):** 0

The NEXRAD PMC ensures that the needs of the NWS are met for operational severe weather analysis.

The National Centers for Environmental Information (NCEI) user engagement group provides user feedback on archived data to the NEXRAD support teams.

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**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

NCEI provides information, tools and data access for all NEXRAD products at NCEI.

<https://www.ncdc.noaa.gov/data-access/radar-data/nexrad>

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**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 NEXRAD Program uses the latest in radar technologies to deliver optimum products for severe weather forecasting and analysis. Data access technologies are continually assessed and improved by NCEI.

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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

All historical data and near real-time operational data are archived at NCEI. NCEI has National Archives and Records Administration (NARA) -approved retention schedules in place for this data type.