



NOAA FORM 58-5 (4-04)

National Oceanic and Atmospheric Administration	NOAA Administrative Order 212-15B	
NOAA ADMINISTRATIVE ORDER SERIES	DATE OF ISSUANCE 11/16/2023	EFFECTIVE DATE 11/16/2023
SUBJECT MANAGEMENT OF NOAA DATA AND INFORMATION		

SECTION 1. PURPOSE.

This NOAA Administrative Order (NAO) establishes the Department of Commerce (DOC) / National Oceanic and Atmospheric Administration (NOAA) Data Management Policy. The purpose of the policy is to ensure data are treated as a strategic asset and managed to realize the maximum value from NOAA’s investment in observations, modeling, and research. This policy provides high-level direction that guides decisions – and required actions regarding data and information management throughout NOAA – aligned with Federal law and data strategies. Further guidance on how this policy is to be implemented will be provided in a Data Management Handbook (the Handbook) that addresses the full data lifecycle for all domains of NOAA data and information.

SECTION 2. SCOPE.

This NAO applies to all NOAA environmental and administrative data – including data produced with NOAA funding via grants or cooperative agreements (or procured via contract) – and to the personnel and organizations that manage these data.

SECTION 3. DEFINITIONS.

The following are terms used in this NAO. Additional terms related to implementation will be defined in the Handbook.

- .01 Data – recorded information, regardless of form or the media on which the data is recorded.¹

¹ Definition from the Evidence Act, 44 U.S.C. § 3502 (16)



- .02 Data Asset – collection of data elements or data sets that may be grouped together.²
- .03 Environmental Data – Data that includes, but is not limited to: 1) recorded and derived observations; 2) measurements of the physical, chemical, biological, geological, and geophysical properties and conditions of the oceans, atmosphere, space environment, sun, and solid earth; 3) correlative data, such as socio-economic data; 4) model outputs using or predicting data; and 5) related documentation and metadata (from NAO 212-15A).
- .04 Administrative Data – Administrative data is derived from the operation or management of an organization or institution,³ and is collected for the purposes of registration, transaction, and record keeping and often associated with the delivery of a service.⁴ Administrative data differs from experimental, scientific, and observational data in that it is found (rather than systematically made) data and is not primarily collected for environmental research purposes. As such, it can be large, complex, and not necessarily collected in an organized manner that allows for linkages to other information or data.⁵ Through the curation, enhancement, documentation, and accessibility of administrative data, NOAA can better understand how it achieves its mission and serves society.⁶ This is especially important for the research and observational components of NOAA whose value in decision making and societal impacts is found elsewhere in the agency. Applications of administrative data allow for research in service delivery, user engagement, program management, social science, and economic valuation. Administrative data can include personally identifiable information or other sensitive, controlled unclassified information. Public data collection is also subject to the Paperwork Reduction Act. Data collection and warehousing will follow Federal and NOAA policies where applicable.
- .05 Information – Any communication or representation of knowledge such as facts, data, or opinions in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual forms.⁷
- .06 Data Lifecycle – The stages through which information passes – typically characterized as a creation or collection, processing, dissemination, use, storage, and disposition – to include destruction and deletion.⁸

² Definition from the Evidence Act, 44 U.S.C. § 3502 (17)

³ Elias, P. (2014). Administrative data. *Facing the Future: European Research Infrastructures for the Humanities and Social Sciences*. Berlin: Scivero Verlag, 47.

⁴ Woollard, M. (2014). 3.1 administrative data: Problems and benefits. a perspective from the united kingdom1. *Facing the future: European research infrastructures for the humanities and social sciences*, 49.

⁵ Connelly, R., Playford, C. J., Gayle, V., & Dibben, C. (2016). The role of administrative data in the big data revolution in social science research. *Social science research*, 59, 1-12.

⁶ McGrath-Lone, L., Jay, M. A., Blackburn, R., Gordon, E., Zylbersztejn, A., Wijlaars, L., & Gilbert, R. (2022). What makes administrative data “research-ready”? A systematic review and thematic analysis of published literature. *International journal of population data science*, 7(1).

⁷ As defined in OMB Circular A-130:

<https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf>

⁸ OMB Circular A-130, Managing Information as a Strategic Resource

SECTION 4. POLICY.

- .01 All NOAA data will be managed following the FAIR principles to ensure it is Findable, Accessible, Interoperable, and Reusable,⁹ except to the extent limited by law, regulation, policy (such as those applicable to personally identifiable information, protected critical infrastructure information, or proprietary trade information), contract, agreement, or security requirements, and accordingly labeled as controlled unclassified information.
- .02 Management of NOAA's data will be based upon an end-to-end data lifecycle that includes:
- Plan: Plan and design the project, program, or research from onboarding to project closure, including methods and resources for data management.
 - Obtain: Acquire data from NOAA-owned and non-NOAA owned systems, including data collection and analysis, data integration, data buys, and models.
 - Process: Process data to make it useful to users and create products.
 - Preserve: Identify essential records, determine data required to be preserved, determine the method of preservation, align preservation with records retention schedules, and coordinate discovery and access to archived records.
 - Access: Ensure timely internal and public access to data and metadata as appropriate, with no or limited restrictions on use, clearly marked with an open data license or as controlled unclassified information.
 - Disposal: Removal of data based on the record retention schedule.
- .03 With cross-cutting components of:
- Describe: During data collection and creation, document data and collection processes through metadata to ensure provenance and independent understandability.
 - Track and Monitor: Track data and metadata throughout the lifecycle and monitor application of data management principles.
 - Quality: Ensure the quality, objectivity, utility, and integrity of the data.
 - Security: Protect data from unauthorized access, corruption, and theft.

SECTION 5. IMPLEMENTATION.

Implementation will be described in the Handbook that provides detailed guidance on the above lifecycle components. The Handbook will be developed and maintained by the NOAA Data Governance Committee (DGC). The Handbook inherits the requirements and authority of this policy.

SECTION 6. RESPONSIBILITIES.

- .01 The NOAA Chief Data Officer (CDO) in coordination with the NOAA Assistant Chief Data Officers (ACDO) and the NOAA Data Governance Committee (DGC) shall be

⁹ Wilkinson, M. D., Dumontier, M., Aalbersberg, I. J., Appleton, G., Axton, M., Baak, A., ... & Mons, B. (2016). The FAIR Guiding Principles for scientific data management and stewardship. *Scientific data*, 3(1), 1-9.

responsible for managing this Order in consultation with the appropriate NOAA Councils and Committees.

- .02 The DGC shall develop, approve, and maintain the Handbook associated with this Administrative Order.
- .03 The NOAA CDO and ACDOs through the DGC shall monitor compliance with and reporting on this policy and associated with the Handbook throughout the data management lifecycle.
- .04 The DGC will report at least annually on the implementation of this NAO to the NOAA Chief Information Officer Council and NOAA Observing Systems Council.

SECTION 7. REFERENCES.

The NOAA CDO will maintain a list of applicable authorities and references and will provide access to their electronic editions.

SECTION 8. EFFECT ON OTHER ISSUANCES.

This order supersedes NAO 212-15A, Management of Environmental Data and Information, effective November 4, 2010, which superseded NAO 212-15, Management of Environmental and Geospatial Data and Information, dated December 2, 2008.

An electronic copy of this Order will be posted in place of the superseded Order on the NOAA Office of the Chief Administrative Officer website under the NOAA Administrative Issuances Section.



Under Secretary of Commerce
for Oceans and Atmosphere

Office of Primary Interest:
NOAA Office of the Chief Information Officer (OCIO)