

***NATIONAL MARINE FISHERIES SERVICE POLICY DIRECTIVE PD 04-111  
JULY 5, 2010***

***Administration and Operations***

***Data and Information Management***

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## **Introduction**

This National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) policy is a high-level directive that guides procedures, decisions, and actions regarding data, information ownership, and information management throughout NMFS. It shall be implemented by procedural directives that address the full data management life cycle of NMFS data.

## **Objective**

This policy directive establishes the NMFS Data and Information Management Policy. It is in accordance with the President's December 8, 2009, Directive on Open Government (M-10-06), which established the principles of transparency, participation, and collaboration as the cornerstones of an open government requiring timely publication of quality information addressed in this policy. This directive is intended to effect a cultural change within NMFS in which all of the agency's data are recognized and managed as core agency resources and shared appropriately.

## **Scope**

This Directive applies to data and information throughout NMFS, unless exempted from disclosure by statutory authority, such as fishery observer data subject to the Magnuson-Stevens Fishery Conservation and Management Act. Data include, but are not limited to, all data collected or derived by NMFS programs either directly by its employees or through contracts or grants, data shared within NMFS, and data shared outside of NMFS. All data collections supported by funds appropriated for the NMFS programs belong to the U.S. Government and the people of the United States.

This policy applies to all data assets of the agency, whether they are directly managed by agency staff or by the agency's partners such as state agencies, fisheries information networks, or other parties. In situations where multiple parties are engaged in the collection and management of data and information, the agreement (Memorandum of Understanding, Letter of Agreement, etc.) should specifically address responsibilities and provisions for the sharing of primary and derived data in a timely manner as stipulated in this Policy Directive and consistent with all applicable law. It may be necessary to modify some of these agreements.

## **Authorities and Responsibilities**

This policy directive establishes the following authorities and responsibilities:

- A. The Deputy Assistant Administrator for Regulatory Programs and the Senior Science Advisor for Fisheries direct the implementation of the policy;
- B. The Regional Administrators, Science Center Directors, and Headquarters Office Directors direct the management, execution, and compliance;
- C. The NOAA Fisheries Information Architect (IA) in the NMFS Office of Science and Technology is responsible for management, execution, and coordination of this Policy
- D. The NOAA Fisheries Information Management Coordinators (IMCs) coordinate, review, and report on compliance with the Policy in their respective Regional Offices, Science Centers, and

Headquarters Offices.

E. The NMFS Program Managers and Investigators are responsible for execution of the policy.

### **General Policy and Requirements**

A. Data are among the most valuable public assets that NMFS controls, and are an essential enabler of the NMFS mission. The data will be visible, accessible, and understandable to authorized users to support mission objectives, in compliance with OMB guidelines for implementing the “Information Quality Act” (IQA) and within the constraints imposed by NMFS confidentiality obligations and all other applicable law.

B. All data will be accessible to authorized users within NMFS except where limited by law, regulation, policy (such as those applicable to personally identifiable information, protected critical infrastructure information, or proprietary trade information), or security requirements.

C. All data are modeled, named, and defined consistently across and within all NMFS programs.

D. There shall be one and only one authoritative repository for each of the agency's primary data assets. Every effort shall be made to share data across the NMFS programs and to not maintain redundant data without justification.

E. All data shall have a standard set of metadata including, but not limited to, associated information assurance, quality metadata, privacy sensitivity, and an authoritative source for the data which shall be identified at the lowest level possible, wherever appropriate. Metadata must be in machine readable format. The NMFS Procedural Directive for Metadata will provide requirements and standards for documenting non-summarized data (that is, primary data) and summarized data.

F. All data shall be managed, controlled, and shared by data stewards throughout the life cycle. Compliance to standards will be coordinated by the IMCs in their respective Regional Office, Science Center, or Headquarters Office.

G. The Data management life cycle and the information management life cycle (see Glossary of Terms for definitions) are important concepts signifying that data and information have a life expectancy and should be reviewed regularly, and updated or replaced if necessary. In particular, metadata associated with the agency's data must be regularly reviewed and updated in light of new findings.

### **Data Sharing Policy**

A. NMFS expects that data collected will be made available in original alphanumeric values, or in summarized form when required by law, *generally within one year of its collection, depending on the type of data as specified in the NMFS Procedure Directive for Data Sharing.*

B. Adjustments and, where essential, exceptions to the NMFS Data Sharing Policy may be allowed by NMFS Regional Administrators, Science Center Directors, and Headquarters Office Directors.

C. Subject to data confidentiality restrictions and other applicable law, primary data shall be publicly shared upon the publication, in electronic or in any other format, of any analytical results.

D. Detailed guidance on implementation of the Data Sharing Policy will be provided in the NMFS Procedural Directive for Data Sharing.

### **Measuring Effectiveness**

Criteria for assessing the success of implementing this policy, such as the number of data assets available for public access, the data documented, the data modeled and defined, and data with defined data stewards will be developed by the Fisheries Information Management Committee.

### **Questions**

Questions or concerns regarding this directive should be addressed to the NOAA Fisheries IMC in each Regional Office, Science Center, or Headquarters Office, or to the NOAA Fisheries Information Architect in the NMFS Office of Science and Technology.

### **References**

This policy shall be implemented through operational procedure directives developed, approved, and reviewed in accordance with NMFS' [Policy Formulation directive \(NMFSPD 30-101NMFS\)](#). Procedural Directives for Metadata, Data Stewardship, and Data Sharing are planned. Additional procedural directives will be developed as necessary to provide guidance on other topics.

### **Glossary of Terms**

**Data** -- A value or set of values representing a specific concept or concepts. The meaning of data can vary according to context. In this policy, the term "data" refers specifically to the alphanumeric values that are recorded as a result of a collection program or experiment, and to derived data that are the result of analysis or other synthesis. Data may be collected by NMFS staff, through contracts or grants, or in cooperation with the states and other partners. Data are not limited to recorded observations and measurements of the physical, chemical, biological, geological, or geophysical properties or conditions of the environment. Data may also be correlative data with related documentation or metadata, audio recordings, images, maps, photographs, or reports, and may include fishery-dependent and fishery-independent data, regulatory data, and other non-environmental types of data.

**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. ([OMB Circular A-130 Definitions](#)).

**Enterprise data** -- Data and information shared with an entity outside of the NOAA Fisheries Financial Management Center (FMC) of their origin. (For example, observer data shared between a Science Center and a Regional Office.) Enterprise data can include entities or issues that cross FMC boundaries (for example, data about vessels that fish in multiple regions).

Enterprise data are also those data that are routinely aggregated to support decisions at a higher organizational level (such as catch and value data that is summarized in Fisheries of the United States).

**Data Life Cycle Management (DLM)** -- A policy-based approach to managing the flow of an information system's data throughout that data's life cycle, from creation and initial storage to the time when the data become obsolete and are deleted.

([http://searchstorage.techtarg.com/sDefinition/0,,sid5\\_gci963642,00.html](http://searchstorage.techtarg.com/sDefinition/0,,sid5_gci963642,00.html))

**Information Life Cycle Management (ILM)** -- A comprehensive approach to managing the flow of an information system's information and associated [metadata](#) through all stages: creation or collection through initial processing and storage, dissemination, and final disposition. ILM also includes user practices, planning, budgeting, manipulating, and controlling information throughout its life cycle.

([http://www.whitehouse.gov/omb/Circulars\\_a130\\_a130trans4/](http://www.whitehouse.gov/omb/Circulars_a130_a130trans4/))

**Data Steward** -- The individual who is responsible for establishing and maintaining the quality, integrity, documentation, and preservation of the data asset.

**Metadata.** -- Information describing the characteristics of data. Metadata can be data, information about data, descriptive information about an entity's data, data activities, systems, and holdings. Common uses for metadata include providing the context of the data resource, managing its lifecycle, and extending it to new uses. An example of metadata is the external description of an audio file specifying the artist that created it, when it was created, the length of playtime, and its genre of music. The purpose of metadata is to manage and improve the use of data and thereby turn it into a strategic asset.

(<http://www.dtic.mil/whs/directives/corres/pdf/832002p.pdf>)

**Data Asset** -- Any entity that makes data usable. For example, a database is a data asset that includes data records. A data asset may be a system or application output file, database, document, or web page. A data asset also includes a service that may be provided to access data from an application. For example, a service that returns individual records from a database would be a data asset. Similarly, a website that returns data in response to specific queries (e.g., [www.weather.com](http://www.weather.com)) would be a data asset. A human, system, or application may create a data asset. (<http://www.dtic.mil/whs/directives/corres/pdf/832002p.pdf>)

Signed \_\_\_\_\_/s/\_\_\_\_\_ 6/21/2010\_\_\_\_\_

Eric Schwaab  
Assistant Administrator  
National Marine Fisheries Service

Date: