

**SUPPORTING STATEMENT**  
**U.S. Department of Commerce**  
**National Oceanic & Atmospheric Administration**  
**NOAA Geospatial Metadata**  
**OMB Control No. 0648-0024**

**SUPPORTING STATEMENT PART A**

**Abstract**

This is a request for revision and extension of an existing information collection. NOAA is submitting this request for OMB approval to modify two forms that are currently in use but which have changed very slightly. 1) Send2NCEI has been modified to add a 'License Type' selection field. 2) InPort has been modified to replace the 'File Type' free text field with a 'Distribution Format' drop down value picker. Neither of these modifications will impact the time burden.

The National Oceanic and Atmospheric Administration (NOAA) provides several digital forms-based tools enabling data producers to create geospatial metadata conforming to International Standards Organization (ISO) standards. These tools collect very similar information but provide specific assistance for different scientific communities across the diverse spectrum of earth, ocean, atmospheric, and fisheries resources. In 1994, Executive Order 12906 established the National Spatial Data Infrastructure and directed each agency to "document all new geospatial data it collects or produces... using the standard under development by the FGDC...". In 2010, the FGDC adopted the ISO 19115/19139 suite of standards for use by Federal agencies to document geospatial data.

The voluntary information collection using these tools facilitates NOAA and others in Federal, State, or local governments, academic institutions, and others to provide clear descriptive information (metadata) about geospatial data. Metadata requested in the tools identifies the data provider, data collector(s), data collection dates, and other information that make the described data useful to other researchers and future users of the described data.

Each tool reorganizes descriptive information into an XML file that conforms to the [ISO19115-2](#) Geospatial Metadata standard and the [ISO19139](#) Geographic information Metadata XML schema implementation. A significant advantage for a data provider using one of these tools is that the information is collected through a series of short form-based pages that provide suggestions for entries from established keyword lists and other standard responses. Data providers may opt to use suggested entries or to enter free text into the forms.

**Justification**

**1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

NOAA is one of the Nation's premier geospatial data managers, with responsibility for collecting, documenting, using, retaining and distributing data from a wide array of earth sciences domains. These

"earth sciences data" include the atmosphere, terrestrial and aquatic ecosystems, fisheries and resources management, forecast models, and related socioeconomic data. NOAA, and in particular the National Centers for Environmental Information (NCEI) and the internationally designated World Data System repositories managed by NCEI, is also the long-term repository of record for much of the earth sciences data for NOAA and other Federal, state, tribal, local and other scientific communities in the US and internationally.

Without descriptive geospatial metadata, the immediate and long-term value and reusability of these earth sciences data are extremely limited. By providing tools that support and facilitate the creation of geospatial metadata to the scientific communities that are collecting the geospatial data, the quality, accuracy and completeness of metadata is enhanced by those who know the most about data that are being described. Geospatial metadata managed by NOAA are provided to several discovery catalogs and other online resources using metadata transformed to internationally recognized standard representations. As a long-term repository for scientific data, future users of these data will also benefit from metadata describing the details of the observations, models, and other data stewarded by NOAA.

In 1994, Executive Order 12906 established the National Spatial Data Infrastructure and directed each agency to "document all new geospatial data it collects or produces... using the standard under development by the FGDC...". Subsequently, the Federal Geospatial Data Committee (FGDC) adopted the ISO 19115/19139 suite of standards for use by Federal agencies to document geospatial data.

More recent legislation, regulations, and NOAA Administrative guidance documents require the collection, retention and reuse of geospatial metadata, including:- the OPEN Government Data Act ('[§ 3563 \(a\) \(2\) \(G\) \(c\) \(1\)](#) "...the Enterprise Data inventory include a compilation of metadata about agency data assets")

- the [Geospatial Data Act of 2018](#) (Section 9 (a) (6) "... (6) use the geospatial data standards, including the standards for metadata for geospatial data, and other appropriate standards, including documenting geospatial data with the relevant metadata and making metadata available through the GeoPlatform)

- OMB Memorandum M-19-18: Federal Data Strategy - A Framework for Consistency, June 2019. <https://www.whitehouse.gov/wp-content/uploads/2019/06/M-19-18.pdf>

- OMB Memorandum, M-13-13: Managing Government Information as an Asset throughout its Life Cycle to Promote Interoperability and Openness, May 2013. <https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf>

- NOAA Data Strategy: Maximizing the Value of NOAA Data, 2022. <https://www.noaa.gov/sites/default/files/2022-11/NOAA-Data-Strategic-Action-Plan.pdf>

- NOAA Administrative Order 212-15: Management of Environmental Data & Information, November 2010. [https://www.corporateservices.noaa.gov/ames/administrative\\_orders/chapter\\_212/212-15.html](https://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_212/212-15.html)

- NOAA Environmental Data Management Committee's Procedural Directives. <https://nosc.noaa.gov/EDMC/PD.all.php>

**2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

The NOAA Geospatial Metadata tools in this information collection include the following tools:

## National Satellite, Data and Information Service (NESDIS):

- Send2NCEI (S2N)
- Advanced Tracking and Resource tool for Archive Collections (ATRAC)
- Collection Manager Editing Tool (CoMET)

## National Marine Fisheries Service and National Ocean Service (NMFS):

- InPort

## Office of Oceanic and Atmospheric Research (OAR):

- Scientific Data Information System (SDIS)

Each of these tools are intended to be used for several, sometimes overlapping, target audiences of scientific researchers, but they share information collection characteristics. The practical utility of these tools and the information they collect is to provide a simplified process for providing descriptive information about complex scientific observation data, model outputs, publications and other outputs from scientific research. The planned use of the information collected (e.g., geospatial metadata) is the foundation for providing discovery of data in NOAA's holdings and contextual information about the content of described data. Geospatial metadata collected using these tools become directly accessible through Federal data discovery portals, such as data.gov, noaa.data.gov, gcmd.nasa.gov, and others.

Information collected includes specific details about where, when, how, and by whom scientific data were collected. This may include named sea or land areas, specific instruments and methodologies used for data collection and analysis, dates of observations, and individuals or organizations involved in data collection efforts.

Information gathering is typically done by individual scientists, metadata managers, or other scientific researchers.

Each tool is a browser-based, web accessible set of forms that guide users through a documentation process.

Geospatial metadata becomes part of the contextual information for archived and retained geospatial data to facilitate both current and future users of those data. Users of this information collection include scientists, resource managers, corporate analysts, educators, students, engineers, and members of the public with interests in NOAA data.

A respondent may select the tool that is most appropriate for the type of data or the scientific area most relevant to the data they want to document. For example, a physical oceanographer may use S2N to document temperature and salinity data from multiple sites on an oceanographic research cruise. Alternatively, a fisheries resource manager may use InPort to document species abundances and identities gathered in a biological survey of a coral reef ecosystem.

Information collection is an intermittent process due to the nature of scientific research. Geospatial metadata are collected by research teams and others as part of data acquisition and analysis processes.

Geospatial metadata is shared with any current or future users of the documented scientific data to facilitate use, context and understanding of those data.

Requirements and expectations for geospatial metadata have increased significantly as more data becomes available via web services and machine-to-machine communications and machine learning have become more available to diverse scientific disciplines. However, the basics of descriptive geospatial metadata have remained rooted in the essential information collected by these NOAA

geospatial metadata tools.

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g. permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also, describe any consideration of using information technology to reduce burden.**

In support of the Government Paperwork Elimination Act, each of the NOAA Geospatial metadata tools are web-based, browser-accessible tools to collect information that can easily be rendered in an internationally recognized standard XML encoded file. Using web-based, browser-accessible tools reduces the burden to complete the information collection process by supporting multiple dropdown selection options for recurring information (e.g., descriptive keywords) and supporting reuse of previously created metadata for new and future information submissions.

**4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Question 2**

Geospatial research data is rarely duplicated exactly due to the nature of earth sciences research. Information collected using NOAA Geospatial metadata tools may be collected once but represented and used for multiple purposes. This reduces the likelihood of unnecessary duplication. The NOAA Geospatial metadata tools facilitate creation of standardized geospatial metadata in multiple formats. Because they are able to export multiple formats of the information, much of the collected information can be programmatically transformed or repurposed to also produce data management plans (mandated by the NOAA Data Management Plan Procedural Directive), generate Data Stewardship Maturity Reports, and various metadata files that are harvested and indexed by internet catalogs like data.gov and Google Scholar.

**5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.**

Because NOAA Geospatial metadata tools are web applications, no software or other technology is necessary other than a standard web browser application (e.g., Firefox, Safari, Chrome) and an internet connection. The tools designed to make the creation of complete, international standards-compliant (ISO) geospatial metadata simpler for all users by providing drop-down choices for frequently used descriptors (e.g., names of organizations or ships) and eliminating the need for a NOAA Geospatial metadata tool user to understand the complexities of the ISO 19115 Geospatial Metadata standard. The Send2NCEI tool also enables users to attach data files to the metadata created using the web application and send the combined metadata and data to NCEI in one web-based Submission Information Package.

**6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

NOAA is widely recognized in the earth sciences data community as managing one of the largest collections of freely-available earth, ocean, and atmospheric observations and data. Documentation of earth sciences observation data collected by non-Federal entities or non-Federally-funded entities are voluntary unless mandated by contractual or grant agreement requirements. Descriptive metadata is

vitaly important for making sure that valuable observations and other data are preserved and accessible for future research purposes. Federal entities and Federally-funded entities are expected to make data and metadata collected using Federal funds accessible and available for the long term in accordance with the 2013 Executive Order “Making open and machine readable the new default for government information”.

If the information collection supported by NOAA Geospatial metadata tools is not conducted, the expected results are twofold: 1) earth sciences data, typically collected with significant Federal financial support, may not be made discoverable and accessible to a broad audience of data consumers, and 2) significant additional scarce resources will be expended by NOAA to create and organize metadata to document earth sciences data necessary to perform the life-and-property protection mission of NOAA. The web-based tools are designed to support an ‘as needed’ or ‘on demand’ frequency of use, so a data provider may use NOAA Geospatial tools only when appropriate.

**7. Explain any special circumstances that would cause an information collection to be conducted in a manner inconsistent with OMB guidelines.**

NOAA does not anticipate special circumstances that would cause an information collection of geospatial metadata using NOAA Geospatial metadata tools to be conducted in a manner inconsistent with OMB guidelines.

**8. If applicable, provide a copy and identify the date and page number of publications in the Federal Register of the agency's notice, required by 5 CFR 1320.8 (d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

A Federal Register notice was published on October 3, 2024 (89 FR 80544) soliciting public comments on the revision and extension to this information. No public comments were received in response to the Federal Register Notice.

Developers for each of the tools work continuously within their respective data collection communities to elicit comments that result in improvements to user guides, tool tips and software development improvements. Using this 'agile methodology' to provide opportunities for continuous improvement of the tools, NOAA Geospatial metadata tools continue to meet the needs of the designated communities they support through an ongoing process of informal feedback.

**9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

No payments, gifts or other remuneration are provided to any respondents using NOAA Geospatial metadata tools other than remuneration of contractors or grantees.

**10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy. If the collection requires a system of records notice (SORN) or privacy impact assessment (PIA), those should be cited and described here.**

No assurances are provided to respondents regarding confidentiality. Identifying information in the

NOAA Geospatial metadata tools web applications is required to maintain user accounts and to comply with mandatory standard metadata requirements for geospatial data in accordance with Executive Order 12906.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.**

Information of a sensitive nature is outside the scope of information collected using NOAA Geospatial metadata tools.

**12. Provide estimates of the hour burden of the collection of information.**

Information Collection	Type of Respondent (e.g., Occupational Title)	# of Respondents (a)	Annual # of Responses / Respondent (b)	Total # of Annual Responses (c) = (a) x (b)	Burden Hrs / Response (d)	Total Annual Burden Hrs (e) = (c) x (d)	Hourly Wage Rate (for Type of Respondent) (f)	Total Annual Wage Burden Costs (g) = (e) x (f)
NESDIS Send2NCEI	data manager	100	3	300	0.75	225	\$30.95	\$6,964
NESDIS ATRAC	data manager	150	4	600	2.00	1200	\$30.95	\$37,140
NESDIS CoMET	data manager	40	3	120	2.00	240	\$30.95	\$7,428
NMFS-NOS InPort	data manager	70	3	210	2.50	525	\$30.95	\$16,249
OAR SDIS	data manager	50	4	200	2.00	400	\$30.95	\$12,380
<b>Totals</b>				<b>1430</b>		<b>2590</b>		<b>\$80,161</b>

Occupational Code 19-4090, Miscellaneous Life, Physical, and Social Science Technicians, was used to determine the hourly wage rate for respondents. [https://www.bls.gov/oes/current/oes\\_nat.htm#19-4090](https://www.bls.gov/oes/current/oes_nat.htm#19-4090)

Individual estimates for the hour burden for NOAA Geospatial metadata tools are as follow:

***NESDIS Send2NCEI:***

Public reporting burden for Send2NCEI is estimated to vary from 30 minutes to 60 minutes per response with an average of 45 minutes per response, depending on the complexity and completeness of the information provided. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining needed metadata, and completing and reviewing the collection of information. These estimates are based on anecdotal information collected during application development and from discussions with Send2NCEI users over the course of the previous 5 years of use.

The initial information collection activity is estimated to take .75 hours (about 45 minutes), which includes creating a user account, entering at least the minimum information needed to submit a Submission Information Package, reviewing some ancillary information (help text and tips), and submitting the package to NCEI. Subsequent responses created by using the same user account information frequently reuse some existing information already entered in the Send2NCEI web application.

NCEI estimates that 100 respondents will use the Send2NCEI web application at least once each year, but there may be at least three (3) repeat responses from a single respondent during a year, for a total of 300 responses per year.

This type of information is typically collected and sent to NCEI by graduate students or science data managers.

***NESDIS ATRAC:***

Public reporting burden for ATRAC is estimated to vary from 1 hour to 8 hours per response with an average of 2 hours per response, depending on the complexity and completeness of the information provided. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining needed metadata, and completing and reviewing the collection of information. These estimates are based on anecdotal information collected during application development and test uses of the information collection tool.

The initial information collection activity is estimated to take 3 hours, which includes creating a user account, entering at least the minimum information needed to document a data collection, reviewing some ancillary information (help text and tips), and saving the information for review and/or reuse. Subsequent responses created by using the same user account information frequently reuse some existing information already entered in the ATRAC web application.

NCEI estimates that 150 respondents will use the ATRAC web application at least once each year, but there may be at least 4 repeat responses from a single respondent during a year, for a total of 600 responses per year.

This type of information is typically collected and provided to NCEI by graduate students or science data managers.

***NESDIS CoMET:***

Public reporting burden for CoMET is estimated to vary from 1 hour to 8 hours per response with an average of 2 hours per response, depending on the complexity and completeness of the information provided. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining needed metadata, and completing and reviewing the collection of information. These estimates are based on anecdotal information collected during application development and test uses of the information collection tool.

The initial information collection activity is estimated to take 3 hours, which includes creating a user account, entering at least the minimum information needed to document a data collection, reviewing some ancillary information (help text and tips), and saving the information for review and/or reuse. Subsequent responses created by using the same user account information frequently reuse some existing information already entered in the ATRAC web application.

NCEI estimates that 40 respondents will use the ATRAC web application at least once each year, but there may be at least 3 repeat responses from each respondent during a year, for a total of 120 responses

per year.

This type of information is typically collected and provided to NCEI by graduate students or science data managers.

***NMFS/NOS InPort:***

Public reporting burden for InPort is estimated to vary from 2 hours to 10 hours per response with an average of 2.5 hours per response, depending on the complexity and completeness of the information provided. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining needed metadata, checking responses against quality control measures, and completing and reviewing the collection of information. These estimates are based on anecdotal information collected during application development and test uses of the information collection tool.

NMFS and NOS estimate that 70 respondents will use the InPort web application at least once each year, but there may be at least three (3) repeat responses from a single respondent during a year, for a total of 210 responses per year. Many responses will be partially derived from templates containing common information within programs or offices, reducing the time needed for repeat responses.

This type of information is typically collected and provided by graduate students, science data managers, or research scientists.

***OAR SDIS:***

Public reporting burden for SDIS is estimated to vary from 1 hour to 8 hours per response with an average of 2 hours per response, depending on the complexity and completeness of the information provided. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining needed metadata, and completing and reviewing the collection of information. These estimates are based on anecdotal information collected during application development and test uses of the information collection tool, as well as from discussions with potential users.

OAR estimates an average of approximately 50 users of the SDIS system submitting a total of 200 datasets per year. Most users are expected to submit only one dataset per year, but some will submit several. In general, users submitting several datasets will likely have a considerable amount of common information between them, so the time to submit each will be reduced.

The information submitted through the SDIS system is generally provided by graduate students, research assistants, or research scientists.

**13. Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected on the burden worksheet).**

There are no capital/start-up or ongoing operation/maintenance costs associated with this information collection.

**14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational**



**expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.**

Federal wage rates were determined using the General Schedule pay tables for the Rest of U.S. location since NOAA employees are geographically dispersed. (<https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2025/RUS.pdf>) A multiplier of 1.5 was used to calculate the loaded salary rate. Individual estimates for the annualized estimated cost to the Federal government for the NOAA Geospatial metadata tools are as follow:

***NESDIS Send2NCEI***

NCEI will incur no additional costs beyond normal labor costs for staff labor or equipment procurement, operation and maintenance. NCEI estimates that an NCEI employee will require 1 hour to review and assess the information provided by a Respondent to this information collection. Using the labor rate at the Federal GS-11 Step 5 rate (\$83,795 base rate/year, with a loaded rate of \$125,693 or \$60.43/hour in 2025) and anticipating 300 responses per year, the approximate annualized cost to the Federal government for federal oversight is \$18,129.

***NESDIS ATRAC***

NCEI will incur no additional costs beyond normal labor costs for staff labor or equipment procurement, operation and maintenance. NCEI estimates that an NCEI employee will require 2 hours to review and assess the information provided by a Respondent to this information collection. Using the labor rate at the Federal GS-11 Step 5 rate (\$83,795 base rate/year, with a loaded rate of \$125,693 or \$60.43/hour in 2025) and anticipating 600 responses per year, the approximate annualized cost to the Federal government for federal oversight is \$72,516.

***NESDIS CoMET***

NCEI will incur no additional costs beyond normal labor costs for staff labor or equipment procurement, operation and maintenance. NCEI estimates that an NCEI employee will require 1 hour to review and assess the information provided by a Respondent to this information collection. Using the labor rate at the Federal GS-11 Step 5 rate (\$83,795 base rate/year, with a loaded rate of \$125,693 or \$60.43/hour in 2025) and anticipating 120 responses per year, the approximate annualized cost to the Federal government for federal oversight is \$7,252.

***NMFS/NOS InPort***

NMFS and NOS will incur no additional costs beyond normal labor costs for staff labor or equipment procurement, operation and maintenance. NMFS and NOS estimates that an employee will require 1.5 hours to review and assess the information provided by a Respondent to this information collection. Using the labor rate at the Federal GS-11 Step 5 rate (\$83,795 base rate/year, with a loaded rate of \$125,693 or \$60.43/hour in 2025) and anticipating 210 responses per year, the approximate annualized cost to the Federal government is \$19,035.

***OAR SDIS***

OAR will incur no additional costs beyond normal labor costs for staff labor or equipment procurement, operation and maintenance. For data submissions the review is undertaken by NCEI, and estimates are similar or less than that of S2N. OAR estimates that an NCEI employee will require 1 hour to review and assess the information provided by a Respondent to this information collection. Using the labor rate at the Federal GS-11 Step 5 rate (\$83,795 base rate/year, with a loaded rate of \$125,693 or \$60.43/hour in 2025) and anticipating 200 responses per year, the approximate annualized cost to the Federal government for federal oversight is \$12,086. This rate will be reduced as the data acceptance by NCEI is

automated.

Total Costs to the federal government:

<b>NESDIS</b>		
Send2NCEI	\$	18,129
ATRAC	\$	72,516
CoMET	\$	7,252
<b>NMFS/NOS</b>		
InPort	\$	19,035
<b>OAR</b>		
SDIS	\$	12,086
<b>Total</b>	<b>\$</b>	<b>129,018</b>

**15. Explain the reasons for any program changes or adjustments reported in ROCIS.**

NOAA is adjusting this request for OMB approval to modify two forms that are currently in use but which have changed very slightly. 1) Send2NCEI has been modified to add a data licensing selection field. 2) InPort has been modified to replace the ‘File Type’ free text field with a ‘Distribution Format’ drop down value picker. Neither of these modifications will impact the time burden.

**16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.**

There are currently no plans to publish results related to this information collection.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

The agency plans to display the expiration date for OMB approval of the information collection on all instruments.

**18. Explain each exception to the certification statement identified in “Certification for Paperwork Reduction Act Submissions.”**

The agency certifies compliance with [5 CFR 1320.9](#) and the related provisions of [5 CFR 1320.8\(b\)\(3\)](#).