FGDC.GOV
FEDERAL GEOGRAPHIC DATA COMMITTEE

2022 Covered Agency Annual Report and Self-Assessment

for
Department of Transportation

Geospatial Data Act of 2018
Section USC 43 Sec 2808(a) Requirements

February 4, 2023

Table of Contents

Introduction

The Geospatial Data Act of 2018 (GDA) was signed into law on October 5, 2018. The GDA was included as a component of the FAA Reauthorization Act (H.R. 302, P.L. 115-254). The GDA is now in U.S. Code, Title 43 – Public Lands, Chapter 46: GEOSPATIAL DATA.

USC 43 Sec 2808(b) of the Geospatial Data Act (GDA) requires each covered agency[1] to submit to the Federal Geographic Data Committee (FGDC) "an annual report regarding the achievements of the covered agency in preparing and implementing the strategy described in subsection (a)(1) and complying with the other requirements under subsection (a)." [https://fgdc.gov/gda/online]

This document serves as the Department of Transportation's annual report to the FGDC covering Fiscal Year 2022, October 1, 2021 through September 30, 2022. The report was developed through a self-assessment template developed by the FGDC agencies. Annual reports span one fiscal year. The report includes a rating for each covered agency responsibility of "meets expectations," "made progress toward expectations," or "fails to meet expectations," as required by the GDA. A summary and evaluation of all the covered agency reports will be generated by FGDC and provided to the National Geospatial Advisory Committee (NGAC) for review and comment. The summary reports, along with the NGAC comments, will also become part of the biennial FGDC GDA report to Congress and will be published online via the FGDC GDA pages [https://fgdc.gov/gda].

This report is based on a standardized questionnaire and self-assessment score for each covered agency responsibility. The Department of Transportation has maintained documentation supporting the responses provided for this assessment. This information may be reviewed as part of the biennial Inspector General (IG) audits of covered agencies.

A recommended self-assessment key has been provided for each responsibility. In some cases, optional text is provided for additional insights or to justify a self-assessment selection. Any optional responses provided are not a factor in the self-assessment.

Where data or datasets are referenced,[2] information relates to all geospatial datasets owned or managed by the Department of Transportation that are, or should be, available to the public.

To support a more comprehensive picture of agency compliance and related activities, each agency had the option to submit up to a 2-page document, using the survey, as part of the agency's submission. If provided, the document may include highlights and examples that can supplement the FGDC report to Congress, support the feedback process with the NGAC, or provide context to Office of the Inspector General (OIG) findings.

---

[1] GDA definition of *agency*: https://www.fgdc.gov/gda/online#the-term-''covered-agency''—means—an-executive-department-as-def

[2] GDA definition of *geospatial data*: https://www.fgdc.gov/gda/online#the-term-%E2%80%98%E2%80%98geospatial-data%E2%80%99%E2%80%99%E2%80%94means-information-that-is-tied-to-a

Self-Assessment for Department of Transportation

GDA Requirement	Prepare, maintain, publish, and implement a strategy for advancing geographic information and related geospatial data and activities appropriate to the mission of the covered agency, in support of the strategic plan for the National Spatial Data Infrastructure
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	  ○ Yes to Question 1.1 and 1.2
	• **Made progress toward expectations =**
	  ○ Yes to Question 1.1 **and** No to Question 1.2
	• **Fails to meet expectations =**
	  ○ No to Question 1.1 and 1.2

Table 1. GDA USC 43 Sec 2808(a)(1) Covered Agency Geospatial Strategies Requirement and Self-Assessment Criteria.

Clarifying Text: FGDC developed and released a national strategic plan for the development of the National Spatial Data Infrastructure (NSDI) [the GDA, USC 43 Sec 2804(c)], which was approved by the FGDC Steering Committee in November 2020. Covered Agency Geospatial Strategies [the GDA, USC 43 Sec 2808(a)(1)], which will support the goals in the NSDI strategic plan, were due to be completed and submitted for agency approval by February 26, 2021, per FGDC guidance. For more information, please visit http://fgdc.gov/nsdi-plan.

1.1 Is your agency's strategy complete, approved, and being implemented?

- Yes

1.2 Is your agency's strategy published? If yes, please provide the URL or briefly describe how public access is being provided.

- Yes

https://www.transportation.gov/sites/dot.gov/files/2022-06/US-DOT-GIS-Strategic-Plan-2022-24.pdf

1.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(1), "Prepare and implement a strategy for advancing geospatial data activities appropriate to the agency's mission." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

DOT has published its GIS Strategic Plan in June of 2022. The DOT Geospatial Management Office is overseeing the implementation of the plan and is reviewing and documenting progress on a quarterly basis.

USC 43 Sec 2808(a)(2) Support Data Sharing

GDA Requirement	Collect, maintain, disseminate, and preserve geospatial data such that the resulting data, information, or products can be readily shared with other federal agencies and non-federal users.
Agency Self-Assessment	**Meets Expectations**
KEY to Self-Assessment	• **Meets expectations =** ○ *Data is currently shared* selections for **all** agency appropriate parties for Question 2.1 and Yes to Questions 2.2 and 2.3 • **Made progress toward expectations =** ○ *Data is currently shared* selections for **some** appropriate parties for Question 2.1, **or** Question 2.2 and 2.3 have a mix of answers • **Fails to meet expectations =** ○ No to Questions 2.1, 2.2, and 2.3

Table 2. GDA USC 43 Sec 2808(a)(2) Support Data Sharing Requirement and Self-Assessment Criteria.

Clarifying text:

✓ This section does not include efforts related to partners, which are covered under Question 7, USC 43 Sec 2808(a)(7).

✓ Review the GDA definition of geospatial data to consider the questions in this section.

✓ Remember, your agency's answers should include information about all geospatial datasets owned or managed by your agency that are, or should be, available to the public in accordance with agency statutory authorities and missions; not just National Geospatial Data Asset (NGDA) Datasets.

✓ Sharing data on the Internet using open standards, protocols and formats makes it part of the NSDI.

✓ Additional detail on the definition of geospatial data may be provided by OMB Circular A-16 when finalized.

✓ Geospatial data that will not or cannot be distributed to the public does not need to be considered for GDA-related responses as per the GDA.

2.1 Does your agency ensure that all eligible geospatial data is managed so it can be readily shared and is it provided in open formats, as appropriate? (This will include agency open government and transparency guidelines.) (Select all that apply)

• Data is currently openly shared to the public.

2.2 Does your agency disseminate eligible geospatial data in a way that can be readily shared in open formats (for example, using machine readable formats or searchable metadata)? (Select all that apply)

• Yes, eligible geospatial data and metadata are shared in open formats.

2.3 Are maintenance processes in place to ensure other federal agencies and non-federal users have access to the most recent data in addition to data and metadata updates and corrections? (Select all that apply)

- Yes, agency policies exist to ensure all programs implement data maintenance processes.

2.4 Optional Question: Would the agency like to provide up to 5 key examples of ongoing or planned activities that ensure eligible geospatial data and associated metadata can be easily shared, understood, and re-used by others, now and in the future?

- Yes

Planned or Ongoing Activities	Description
FMCSA Picture of Crashes	The Federal Motor Carrier Safety Administration (FMCSA) Picture of Crashes prototype is a proof-of-concept geospatial analysis tool that explores linked datasets from Maryland, Texas, and Virginia. These datasets include crash data from NHTSA, crash and enforcement data from FMCSA, roadway infrastructure data from FHWA, and historical weather data from NOAA. FMCSA is actively identifying additional data sets to include, with plans to incorporate WAZE data in the future.
FHWA ARNOLD and HPMS Data	The Federal Highway Administration provides extent, conditions and performance highway data on the USDOT public spatial data portal, which is updated annually. This includes data for all roads in the United States.
BTS National Transportation Atlas Database	The National Transportation Atlas Database (NTAD), published by the Bureau of Transportation Statistics (BTS), is a set of nationwide geospatial datasets (and metadata) of transportation facilities, transportation networks, and associated infrastructure. These data support research, analysis, and decision-making across all modes of transportation. They are most useful at the national level, but have major applications at regional, state, and local scales throughout the transportation community.

Table 2.a. Optional Information Regarding Ongoing or Planned Geospatial Data Sharing Activities.

2.5 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(2), "collect, maintain, disseminate, and preserve geospatial data such that the resulting data, information, or products can be readily shared with other Federal agencies and non-Federal users." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

PHMSA's NPMS data is collected and updated annually with submissions from 1,500 regulated pipeline operators. FAA's Aeronautical Information Services (AIS) added multiple new feature types for the public (see https://adds-faa.opendata.arcgis.com/). The FRA collects data from the Class 1s, American Short Line and Regional Railroad associations. The Grade Crossing layer is updated monthly by FRA's Office of Safety from the USDOT Grade Crossing Inventory. NTAD is available for download in CSV, KML, and shapefile formats. Additionally, Open Geospatial Consortium (OGC) standard Web Feature Services

(WFS), including Web Mapping Services (WMS), are available for all NTAD datasets. BTS updates NTAD dynamically. Data are released as they become available from their respective government agencies. During fiscal FY21, BTS updated 51 datasets and added 3 new datasets to NTAD. NHTSA provides all information for crash data for studies to the public through a public website. This includes making data available to other Federal Agencies. An example is the Fatal Analysis Reporting System (FARS) data, which is used by the public and Center of Disease Control (CDC). FHWA has developed enhanced spatial validation tools to identify and correct spatial highway data through the Highway Performance Monitoring System (HPMS). The tools will be deployed in the Spring of 2023. MARAD updated the America's Marine Highways layer to reflect the addition of the M-3 route on the Kaskaskia River; the strategic port layer was updated to include the designation of the Port of Everett, WA as a commercial strategic seaport. MARAD maintains an interactive map showing the geographic locations and attributes for each of MARAD's designated Centers of Excellence.

GDA Requirement	Promote the integration of geospatial data from all sources
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	   o Yes to Question 3.1
	• **Made progress toward expectations =**
	   o Partial to Question 3.1
	• **Fails to meet expectations =**
	   o No to Question 3.1

Table 3. GDA USC 43 Sec 2808(a)(3) Promote Data Integration Requirement and Self-Assessment Criteria.

3.1 Has your agency taken action to promote integration of data from multiple sources?

- Yes. The agency has taken appropriate action to promote data integration.

3.1.a If yes or partial to Question 3.1, in what ways does your agency promote data integration from multiple sources? (Select all that apply)

- Hosts a data sharing infrastructure where partners and/or data users can share and discover data.
- Develops a data integration toolkit or APIs to promote integration of agency data in external applications.
- Develops data integration processes to promote integration of non-agency data into applications.
- Provides data in openly standardized readable formats or as downloadable file packages.
- Develops data sharing agreements or Memoranda Of Agreement (MOA) with public and private partners for ingest or sharing of data.

3.2 Brief Summary (Limit 2000 characters or 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(3), "promote the integration of geospatial data from all sources." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

Publicly available Aeronautical Data Delivery Service (ADDS) is an FAA-enabled web service that makes a variety of data source(s) available in CSV, GeoJSON, KML, and Shapefile formats. NHTSA provides all information for crash data for studies to the public through a public website. This includes use of data directly from crash reports and additional source material for the Fatal Analysis Reporting System (FARS) and other crash study programs. Many of the datasets in the National Transportation Atlas Database are aggregated from multiple sources. The National Bridge Inventory is collected from state Departments of Transportation, the Intermodal Passenger Connectivity Database is collected from research and related datasets, the rail lines and nodes are collected from railroad owners and operators, the transit layers are aggregated from transit authorities, and the All Roads TIGER/LINE layer is sourced from counties and states. BTS continues to work with the transportation community to source data from multiple authoritative sources. NHTSA provides all information for crash data for studies to the public through a

public website. This includes use of data directly from crash reports and additional source material for the Fatality Analysis Reporting System (FARS) and other crash study programs. FHWA and NHTSA are working together to link the Highway Performance Monitoring System to the FARS database to provide a common spatial framework for fatal crash reporting.

GDA Requirement	Ensure that data information products and other records created in geospatial data and activities are included on agency record schedules that have been approved by the National Archives and Records Administration
Agency Self-Assessment	**Meets Expectations**
KEY to Self-Assessment	• **Meets expectations =** 　○ Yes to Questions 4.1 and 4.2 • **Made progress toward expectations =** 　○ Yes or Partial to Questions 4.1 and 4.2 **or** 　○ No to either 4.1 or 4.2 • **Fails to meet expectations =** 　○ No to Questions 4.1 and 4.2

Table 4. GDA USC 43 Sec 2808(a)(4) Ensure Records Retention Schedule for Geospatial Data Requirement and Self-Assessment Criteria.

4.1 To ensure approved National Archives and Records Administration (NARA) schedules are in place, does the appraisal process for your agency to determine which data is archived include geospatial data?

- Yes. The agency program's archiving appraisal process is inclusive of data information products and other records created in geospatial data and activities.

4.2 Are geospatial data assets included on agency record schedules?

- Yes. Agency record schedules are inclusive of data information products and other records created in geospatial data and activities.

4.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(4), "ensure that data information products and other records created in geospatial data and activities are included on agency record schedules that have been approved by the National Archives and Records Administration." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

All DOT components have submitted their data to NARA for scheduling.

GDA Requirement	Allocate resources to fulfill the responsibilities of effective geospatial data collection, production, and stewardship with regard to related activities of the covered agency, and as necessary to support the activities of the Committee
Agency Self-Assessment	Meets Expectations
KEY to Self-Assessment	**Meets expectations =** - Yes to Question 5.1 **Made progress toward expectations =** - Partial to Question 5.1 **Fails to meet expectations =** - No to Question 5.1

Table 5. GDA USC 43 Sec 2808(a)(5) Allocate Resources for Geospatial Data Management Responsibilities Requirement and Self-Assessment Criteria.

5.1 Are geospatial program resources (including full- or part-time federal employees or contractors) allocated to fulfill the responsibilities of effective geospatial data collection, production, and stewardship with regard to related activities of the covered agency, and as necessary to support the activities of the Committee? (Select the most appropriate answer and provide context for your agency's response in Question 5.2.)

Clarifying text: Analyses of the requirements for the GDA are ongoing and it is anticipated that agencies will answer based on currently understood or anticipated requirements. Additional details can be provided in the 5.2 Brief Summary and in your agency's 2-page PDF in Appendix B (if provided).

- Yes

5.2 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(5), "allocate resources to fulfill the responsibilities of effective geospatial data collection, production, and stewardship with regard to related activities of the covered agency, and as necessary to support the activities of the Committee." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

DOT has designated GIOs for each of our components that have geospatial programs. We are tracking geospatial spending through submissions to our IT Spend plan, and tracking FTEs through a yearly review. DOT ensures that staff maintain the skills to effectively carry out geospatial data collection, production, and stewardship by making funds available for training and hosting active communities of practice.

GDA Requirement	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
Agency Self-Assessment	**Made Progress Toward Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	   o Yes to Questions 6.1, 6.2 and 6.3
	• **Made progress toward expectations =**
	   o Any other combination of Yes, No, and Partial to Questions 6.1, 6.2, and 6.3
	• **Fails to meet expectations =**
	   o No to Questions 6.1, 6.2, and 6.3

Table 6. GDA USC 43 Sec 2808(a)(6) Use Data Standards Requirement and Self-Assessment Criteria.

Clarifying Text:

✓ Reestablishment of an active, resourced, and sustainable standards process with supporting governance is currently under consideration by the FGDC (Committee).

✓ The FGDC has not yet established any standards under the GDA, USC 43 Sec 2806.

✓ Answers should include information about all geospatial datasets owned or managed by your agency that are, or should be, available to the public in accordance with agency statutory authorities and missions; not just National Geospatial Data Asset (NGDA) Datasets.

6.1. Are defined data standards used in collecting, processing, and/or disseminating the data being addressed? (Select all that apply)

• Partial. Some eligible geospatial datasets use data standards that comply with OMB Circular A-119.

6.2 Does your agency maintain its metadata in an FGDC-endorsed, or ISO-compliant geospatial metadata standard format? (Select all that apply)

Clarifying text: Question does not include legacy datasets that are static and no longer modified or otherwise managed. Also, see the list of endorsed FGDC-endorsed standards https://www.fgdc.gov/standards/.

• Yes. Eligible non-legacy datasets have well maintained FGDC-endorsed or current ISO-compliant geospatial metadata.

6.3 Is your agency geospatial metadata available through GeoPlatform.gov?

Clarifying Text: For the scope of the requirement, USC 43 Sec 2808(b)(1)(A)(iv) provides for "includ[ing] download access to all open geospatial data directly or indirectly collected by covered agencies" and Sec 2808(a)(6) requires that "metadata [be] available through the GeoPlatform."

- Yes. Metadata for all public datasets are available via GeoPlatform.gov.

6.4 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

DOT funded a contract to research and recommend published standards as they apply to DOT geospatial data. The contract is still underway and is on schedule. Tasks completed include standards identification, standards assessment, standards recommendations, the development of a formal standard development life cycle, and the identification of roles and responsibilities. Still being drafted are the staffing plan, cost estimate, and the aggregation of deliverables into a final report. The final version of the Geospatial Standards Implementation Plan is scheduled for delivery in March of 2023. DOT continues to post FGDC-endorsed or ISO-compliant metadata for all publicly available geospatial datasets on GeoPlatform.gov. DOT worked with other federal agencies under in the FGDC Transportation Subcommittee to draft the US Road Specification, which is still in draft review status.

GDA Requirement	Coordinate and work in partnership with other Federal agencies, agencies of State, tribal, and local governments, institutions of higher education, and the private sector to efficiently and cost-effectively collect, integrate, maintain, disseminate, and preserve geospatial data, building upon existing non-federal geospatial data to the extent possible
Agency Self-Assessment	**Meets expectations**

KEY to Self-Assessment	• **Meets expectations =**
	  o Yes to Questions 7.1 and Yes or Not applicable to Question 7.2
	• **Made progress toward expectations =**
	  o Any combination of Yes, Not applicable, Partial, or No to Questions 7.1 and 7.2
	• **Fails to meet expectations =**
	  o No to Questions 7.1 and 7.2

Table 7. GDA USC 43 Sec 2808(a)(7) Support Coordination and Partnerships Requirement and Self-Assessment Criteria.

7.1 Are there processes in place to ensure that, when appropriate, partners and stakeholders have visibility into agency geospatial data management activities (e.g., collection, integration, maintenance, dissemination, and preservation)? (Select all that apply)

- Yes. There are processes in place, but some mission areas do not have requirements for geospatial data management partnerships.

7.1.a If yes or partial to Question 7.1, which external partners and stakeholders are involved in data management activities? (Select all that apply)

Clarifying text: The selection list provided was taken from the GDA, USC 43 Sec 2803(b)(C).

- Other federal agencies
- States
- Local governments
- Regional governments
- Tribal governments
- Private sector entities
- Geospatial information user identities
- Professional associations
- Scholarly associations
- Nonprofit associations
- Academia

7.1.b If yes or partial to Question 7.1, what processes are in place to ensure partners and stakeholders are involved? (Select all that apply)

Clarifying text: When answering this question think about activities such as using surveys, listening sessions, Request for Information, booths at stakeholder conferences.

- Partnership outreach activities
- Expert consultations
- Advisory committee(s)
- Working group(s) and sub-committee(s)
- Steering committees
- Councils
- Engage with trade groups
- Feedback opportunities (e.g., contact email/phone, call center)
- Federal Register Notices
- Memoranda of Understanding
- Use other public comment process

7.2 Does your agency build upon existing non-federal geospatial data? (Select all that apply)

- Yes. Agency builds upon existing non-federal geospatial data to the extent possible.

7.2.a If yes or partial to Question 7.2, what ways do you build upon existing non-federal geospatial data? (Select all that apply)

- Procurement/acquisition/grant
- Research partnership
- Cooperative data collection or crowd sourcing
- Mission assignments or Interagency Agreements
- MOAs/data sharing agreements

7.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(7), "coordinate and work in partnership with other Federal agencies, agencies of State, tribal, and local governments, institutions of higher education, and the private sector to efficiently and cost-effectively collect, integrate, maintain, disseminate, and preserve geospatial data, building upon existing non-Federal geospatial data to the extent possible." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

DOT's geospatial datasets are predominantly compiled through coordination with state and industry partners. PHMSA's GIS data is an aggregation of records collected from other government agencies and the private sector. FRA has MOUs with USGS and with Railinc Corp. for coordination and cooperation pertaining to the exchange of railroad geospatial data. MARAD continues to provide geospatial support to the U.S. Army Corps of Engineers as they finalize their database of legislative port boundaries. NHTSA provides geo-enabled crash data to other Federal Agencies and to the public. An example is the Fatal Analysis Reporting System (FARS) data, which is used by the public and the CDC. BTS staff take active roles in the American Association of State Highway Officials (AASHTO) and the Transportation Research

Board (TRB). The NTAD program manager is a member of AASHTO's Transportation GIS (GIS-T) conference planning committee and coordinates its federal presence. BTS staff are active members of TRB committees related to Geospatial Information Systems, Transit, Rural and Intercity Bussing, Ferry Services, Maritime Operations, and more. Additionally, DOT's Transportation Theme Lead chairs the GDA Covered Agency Working Group, comprised of representatives from 17 Federal agencies. FHWA is working with Federal Land Management Agencies across the US Government to identify inventory duplication of highway data. FHWA routinely coordinate with States to update and maintain the National Highway System shapefile. FHWA is leading a major Pooled Fund Study with eighteen State DOTs developing geospatial enterprise standards covering data governance, BIM, data modeling, complete streets to name a few areas that are engaged. The study title is Applications of Enterprise GIS in Transportation (AEGIST).

GDA Requirement	Use geospatial information to— (A) make Federal geospatial information and services more useful to the public; (B) enhance operations; (C) support decision making; and (D) enhance reporting to the public and to Congress;
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	    ○ Yes to 8.1, 8.2 and 8.3
	• **Made progress toward expectations =**
	    ○ Any combination of Yes, Partial and No to Questions 8.1, 8.2 and 8.3
	• **Fails to meet expectations =**
	    ○ No to 8.1, 8.2 and 8.3

Table 8. GDA USC 43 Sec 2808(a)(8) Promote Application of Geospatial Data Assets Requirement and Self-Assessment Criteria.

USC 43 Sec 2808(a)(8)(A) make Federal geospatial information and services more useful to the public;

8.1 Does your agency leverage geospatial information to make federal geospatial information and services more useful to the public?

Clarifying Text: A number of examples of leveraging geospatial information for public use include, but are not limited to:

- ✓ Making the data accessible
- ✓ Providing data in ingestible services
- ✓ Providing maps or visualizations of geospatial data - like a map of an agency's jurisdictional regions so the public can identify their region on a website
- ✓ Provided data in an online application – like the COVID-19 case tracker
- ✓ Outreach/communications for user feedback
- ✓ Making data open, standardized, or machine readable

- Yes

USC 43 Sec 2808(a)(8)(B) enhance operations; USC 43 Sec 2808(a)(8)(C) support decision making

8.2 Does your agency leverage geospatial information to improve operations and decision-making?

- Yes. Agency broadly leverages geospatial information in operations improvements or decision-making.

USC 43 Sec 2808(a)(8)(D) enhance reporting to the public and to Congress

8.3 Does your agency leverage geospatial information to enhance reporting to the public or to Congress? (Select all that apply)

- Yes. Agency broadly leverages geospatial information to enhance public and Congressional reporting.

8.3.a If yes or partial, for which of these audiences does your agency leverage geospatial information to enhance reporting? (Select all that apply)

- Public reports (e.g., fact sheets, data briefs, Annual reports, other published agency reports).
- Congressional reports.
- Internal agency and leadership plans, reports and communications.

8.4 Optional Question: Would the agency like to provide up to 5 key examples and links that demonstrate how geospatial data assets are used, internally and externally, to make federal geospatial information and services more useful to the public; enhance operations; support decision making; and/or enhance reporting to the public and to Congress?

- Yes

Example	Link
The Aeronautical Data Delivery Service is an FAA-enabled web service that makes data available in CSV, JSON, KML, Shapefile formats to meet the needs of developers and other stakeholders.	https://adds-faa.opendata.arcgis.com/
The FAA UAS Data Delivery Service is an FAA-enabled web service that makes data available in CSV, JSON, KML, Shapefile formats to meet the needs of developers and other stakeholders.	https://udds-faa.opendata.arcgis.com/
The Crash Report Sampling System (CRSS) is a sample of police-reported crashes involving all types of motor vehicles, pedestrians, and cyclists, ranging from property-damage-only crashes to those that result in fatalities. CRSS is used to estimate the overall crash picture, identify highway safety problem areas, measure trends, drive consumer information initiatives, and form the basis for cost and benefit analyses of highway safety initiatives and regulations.	https://www.nhtsa.gov/crash-data-systems/crash-report-sampling-system
The Crash Investigation Sampling System (CISS) collects detailed crash data to help scientists and engineers analyze motor vehicle crashes and injuries. CISS collects data on a representative sample of minor, serious, and fatal crashes involving at least one passenger vehicle – cars, light trucks, sport utility vehicles, and vans – towed from the scene.	https://www.nhtsa.gov/crash-data-systems/crash-investigation-sampling-system

The PHMSA Emergency Mapping Hub is an internal mapping application used to support situational awareness and reporting during emergency response. It integrates external storm, fire and flood GIS data services with pipeline GIS data and tools for printing maps and analyzing storm impacts on pipeline infrastructure.	https://maps.dot.gov/portal/apps/sites/#/phmsa

Table 8.a. Example Benefits of Federal Geospatial Data Assets.

8.5 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(8), "use geospatial information to—

(A) make federal geospatial information and services more useful to the public;
(B) enhance operations;
(C) support decision making; and
(D) enhance reporting to the public and to Congress;"

If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

DOT has built applications to assist grant applicants and program participants in determining the number of historically disadvantaged communities in their project areas. We have also mapped RAISE awards for transportation modernization and enhancement. BTS makes federal geospatial information and services more useful to the public by easing access to national transportation datasets. This reduces the burden of data collection and processing for tribal, state, and local jurisdictions. BTS uses geospatial data to enhance its many publications, to enable the freight analysis framework, and to inform the public about the status of the transportation network. At FRA, GIS has been used to identify the location of the entire FRA inspector workforce. When the data is overlaid with other layers or real time events, it provides decision makers the ability to view the nearest available inspector resources to respond to accidents. To assist in the oversight of hazardous materials shippers, all hazmat railroads, operating practices, grade crossing inspectors and track inspectors have been geolocated and assigned to specific inspectors. This visualization allows inspectors to provide better oversight of the regulated segment of the rail industry and assist with risk modeling. FRA also geolocated all FAST Act Grants to assist with data calls to support Persistent Poverty data requests, Congressional reporting requirement assistance, and equity EO funding. NHTSA provides all information for crash data for studies to the public through a public website. This includes making data available to other Federal Agencies. MARAD produced an emergency reporting dashboard that provides decision support during hurricanes and other events. MARAD uses GIS to map the approximate location of all maritime-related grant awards made by U.S. DOT, which enhances internal planning and decisions.

GDA Requirement	Protect personal privacy and maintain confidentiality in accordance with Federal policy and law
Agency Self-Assessment	Meets Expectations

KEY to Self-Assessment	• **Meets expectations =**
	    ○ Yes to Questions 9.1 and 9.2
	• **Made progress toward expectations =**
	    ○ Yes or Partial to Questions 9.1 **or** 9.2
	• **Fails to meet expectations =**
	    ○ No to Questions 9.1 **or** 9.2

Table 9. GDA USC 43 Sec 2808(a)(9) Protection of Privacy and Confidentiality Requirement and Self-Assessment Criteria.

9.1 Are the agency's Privacy Threshold Assessment or Privacy Impact Assessment (PTA/PIA) processes inclusive of your agency's geospatial data?

Clarifying Text: The Privacy Threshold Assessment/Analysis would be the mechanism that agencies use to determine if PII is, or is not, collected and whether a Privacy Impact Assessment needs to be done for an information system.

- Yes. The agency's PTA/PIA processes are inclusive of all agency data.

9.2 Are the IT systems and applications that maintain and support your agency's geospatial data covered by a current Authorization to Operate (ATO)?

- Yes. All agency geospatial data is housed in a system covered by a current ATO and is appropriately protected in accordance with applicable laws and regulations.

9.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(9), "protect personal privacy and maintain confidentiality in accordance with Federal policy and law." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

All responsible parties have been briefed on and apply the DOT Privacy Risk Management Policy. All geospatial datasets owned by DOT are covered by current ATOs.

GDA Requirement	Participate in determining, when applicable, whether declassified data can contribute to and become a part of the National Spatial Data Infrastructure
Agency Self-Assessment	Meets Expectations

KEY to Self-Assessment	• **Meets expectations =**
	  ○ Yes or Not applicable to Question 10.1
	• **Fails to meet expectations =**
	  ○ No to Question 10.1

Table 10. GDA USC 43 Sec 2808(a)(10) Declassified Data Requirement and Self-Assessment Criteria.

10.1 If your agency handles declassified geospatial datasets, does it have a process to review these declassified datasets for inclusion in the NSDI?

Clarifying text: Sharing standards-based data on the Internet using standard protocols and formats makes it part of the NSDI.

- Not applicable: The agency does not handle declassified data.

10.2 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(10), "participate in determining, when applicable, whether declassified data can contribute to and become a part of the National Spatial Data Infrastructure." If the assessment is "fails to meet expectations," include the actions your agency is taking to achieve the "meets expectations" level.

DOT does not handle classified data.

GDA Requirement	Search all sources, including the GeoPlatform, to determine if existing Federal, State, local, or private geospatial data meets the needs of the covered agency before expending funds for geospatial data collection
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	    o No to Question 11.1 **or**
	    o Yes to Questions 11.1 and 11.2 and all agency appropriate responses to Question 11.3
	 • **Made progress toward expectations =**
	    o Yes to Question 11.1 and Partial or No to Question 11.2 and agency appropriate responses to Question 11.3
	 • **Fails to meet expectations =**
	    o Yes to Question 11.1 and No to Question 11.2 and *No additional assessments are done* selected for Question 11.3

Table 11. GDA USC 43 Sec 2808(a)(11) Non-Duplication of Data Requirement and Self-Assessment Criteria.

11.1 Has your agency expended funds for geospatial data collection for the reporting period?

Clarifying text: "Expended funds" may include grant distribution, agency collection, or procurement of data.

• Yes

11.2 If yes to Question 11.1, and as per OMB Circular A-11 Guidance (Section 25, Page 3), has your agency searched the GeoPlatform prior to making planned geospatial data investments to determine if an existing source for that data is available and meets mission requirements?

• Yes. Agency has searched GeoPlatform prior to all geospatial data investments.

11.3 If yes to Question 11.1, has your agency searched other sources to determine if data necessary to meet requirements already exists (either within or outside the agency) before collecting or acquiring new data? (Select all that apply)

• Market research
• Cross-agency or partner coordination
• Expert consultation
• Database search
• Agency follows a documented process or official policy
• No additional assessments are done

11.4 Optional Question: If yes to Question 11.1, would the agency like to provide up to 5 examples of cases where the agency did find existing data that met its needs or partnered on a joint data acquisition?

- Yes

Title	Description
PHMSA Coastal Ecological Unusually Sensitive Areas	PHMSA avoided purchasing or creating new data by locating existing federal government-maintained datasets to meet congressional mandates related to pipeline integrity management.

Table 11.a. Examples of Successful Data Acquisition Searches and/or Coordination.

11.5 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(11), "Search all sources, including the GeoPlatform, to determine if existing Federal, State, local, or private geospatial data meets the needs of the covered agency before expending funds for geospatial data collection." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

DOT does not expend significant resources on data acquisition, but we wrote and disseminated internally an IT Implementation Memo on this topic. ITIM 2021-002 – DOT Requirements for Planned Geospatial Data Development and Acquisitions states that "DOT Components shall not expend funds to acquire or develop geospatial data if an existing source for that data is available and meets mission requirements. DOT components shall coordinate with other organizations, whether within or outside of the Department, if it is determined another organization is planning on acquiring or producing data that will meet the needs of the DOT Component… Before including a planned expenditure of funds to collect or develop new geospatial data in the IT Spend Plan, each DOT Component will search the GeoPlatform Market Place and any other appropriate sources to determine if existing data meets agency needs. The DOT Component shall also search any FGDC approved clearinghouse(s) containing references to planned geospatial data acquisitions. The DOT Component shall document the date that the GeoPlatform and (optionally) other clearinghouse(s) were searched, the search criteria and results of that search. If the DOT Component discovers/identifies geospatial data from another organization that is publicly appropriate for its use, the DOT Component shall obtain and use that existing geospatial data. If the DOT Component discovers/identifies through the search required above that another organization has plans to acquire or develop geospatial data that is appropriate for its use, the DOT Component shall contact that organization and develop a plan to coordinate or partner with the other organization as appropriate." Each component submits information about activities related to this ITIM to the GMO on an annual basis.

GDA Requirement	To the maximum extent practicable, ensure that a person receiving Federal funds for geospatial data collection provides high-quality data
Agency Self-Assessment	Meets Expectations

KEY to Self-Assessment	• **Meets expectations =**
	  ○ No to Question 12.1 **or**
	  ○ Yes to Question 12.1 and **all** appropriate selections for Question 12.2
	• **Made progress toward expectations =**
	  ○ Yes to Question 12.1 and **some** agency appropriate selections for Question 12.2
	• **Fails to meet expectations =**
	  ○ Yes to Question 12.1 and *No official documented Quality Assurance/Quality Control (QA/QC) process is in place for acquisition of geospatial data* selected for Question 12.2

Table 12. GDA USC 43 Sec 2808(a)(12) Ensuring High-Quality Data Requirement and Self-Assessment Criteria.

12.1 Has your agency expended funds for geospatial data collection from non-federal sources during the reporting period?

Clarifying text: The requirement for "a person receiving Federal funds" has been interpreted to mean non-federal organizations or corporations who are, for example, contract or grant recipients.

- Yes

12.2 If yes to Question 12.1, what methods does your agency employ to ensure quality in geospatial data collected from non-federal sources? (Check all that apply and use the "other" textbox to briefly describe additional methods used to ensure quality for geospatial data acquired by procurement or grant process)

- Evaluate data for quality prior to any acquisition.
- Geospatial data quality standards are specified in contract documents.
- Independent verification and validation (IV&V).
- Staff data experts review and approve geospatial data deliverables.
- Data standards are enforced through automated processes such as database controls or script tools.
- The agency acquires data from another federal agency that is responsible for QA/QC.

12.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(12), "to the maximum extent practicable, ensure that a person receiving Federal funds for geospatial data collection provides high-quality data." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

DOT's ITIM 2021-0004 (published and distributed in FY22) describes and implements a uniform process for all DOT Components to perform a quality review of geospatial data and metadata to verify compliance with DOT's information quality guidelines. It includes a method of ensuring recipients of DOT funds for geospatial data collection meet appropriate quality standards, as well as an assessment of stakeholder and peer reviews in order to validate the quality of all disseminated information. The 2019 DOT Information Dissemination Quality Guidelines (https://www.transportation.gov/dot-information-dissemination-quality-guidelines) address data quality and apply to geospatial datasets. FAA Advisory Circular 150/5300-18B provides specifications for the collection of airport data through field and office methodologies in support of the FAA Airport Surveying GIS Program. Collected safety critical data is forwarded to the National Geodetic Survey (NGS) for independent verification and validation for quality assurance.

GDA Requirement	Appoint a contact to coordinate with the lead covered agencies for collection, acquisition, maintenance, and dissemination of the National Geospatial Data Asset data themes used by the covered agency
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	  ○ Yes to Question 13.1
	• **Fails to meet expectations =**
	  ○ No to Question 13.1

Table 13. GDA USC 43 Sec 2808(a)(13) Point of Contact Requirement and Self-Assessment Criteria.

13.1 Has your agency appointed a POC to coordinate with the lead covered agencies for collection, acquisition, maintenance, and dissemination of the NGDA data themes used by the covered agency?

Clarifying text: According to the GDA Definitions, USC 43 Sec 2801(12), NGDA data theme means "the NGDA core geospatial datasets including electronic records and coordinates relating to a topic or subject designated under USC 43 Sec 2805." Also, OMB Circular A-16 may include additional guidance on covered agency responsibilities for theme coordination.

- Yes. An agency POC has been appointed.

13.2 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(13), "appoint a contact to coordinate with the lead covered agencies for collection, acquisition, maintenance, and dissemination of the National Geospatial Data Asset data themes used by the covered agency." If the assessment is "fails to meet expectations," include the actions your agency is taking to achieve the "meets expectations" level.

The DOT SAOGI is the POC to coordinate with the lead covered agencies.

Appendix A: Survey Picklists

This appendix provides the full set of choices presented in the self-assessment survey for questions that have multiple response options, including those that are "select all that apply."

2.1 Does your agency ensure that all eligible geospatial data is managed so it can be readily shared and is it provided in open formats, as appropriate? (This will include agency open government and transparency guidelines.) (Select all that apply)

- Data is currently openly shared to the public.
- Data is currently shared on a limited basis with federal partners.
- Data is currently shared on a limited basis with non-federal users.
- No data is currently shared to other federal agencies or non-federal users. (Note: For some agencies, this may be an appropriate response).

2.2 Does your agency disseminate eligible geospatial data in a way that can be readily shared in open formats (for example, using machine readable formats or searchable metadata)?

- Yes, eligible geospatial data and metadata are shared in open formats.
- Eligible geospatial data are shared in open formats, but not all metadata is open format.
- Eligible geospatial metadata are shared in open formats, but not all data are open format.
- Some geospatial data, and its metadata, is shared in open formats.
- No geospatial data is shared, or geospatial data is only shared in proprietary formats.

2.3 Are maintenance processes in place to ensure other federal agencies and non-federal users have access to the most recent data in addition to data and metadata updates and corrections?

- Yes, agency policies exist to ensure all programs implement data maintenance processes.
- Some programs/datasets have maintenance processes in place.
- Maintenance processes are in development or are partially implemented.
- No maintenance processes are currently in place or in development.

3.1.a If yes or partial to Question 3.1, in what ways does your agency promote data integration from multiple sources? (Select all that apply and use the "other" textbox to briefly describe additional methods)

- Hosts a data sharing infrastructure where partners and/or data users can share and discover data.
- Develops a data integration toolkit or APIs to promote integration of agency data in external applications.
- Develops data integration processes to promote integration of non-agency data into applications.
- Provides data in openly standardized readable formats or as downloadable file packages.
- Develops data sharing agreements or Memoranda Of Agreement (MOA) with public and private partners for ingest or sharing of data.
- Other (Textbox provided)

6.1. Are defined data standards used in collecting, processing, and/or disseminating the data being addressed? (Select all that apply)

- Yes. Eligible geospatial datasets use FGDC endorsed data standards under OMB A-16, 2002, or more current versions of those endorsed standards.
- Yes. Eligible geospatial datasets use data standards that comply with OMB Circular A-119.
- Partial. Some eligible geospatial datasets use FGDC-endorsed data standards.
- Partial. Some eligible geospatial datasets use data standards that comply with OMB Circular A-119.
- No. Eligible agency geospatial datasets do not use FGDC-endorsed data standards or standards that comply with OMB Circular A-119.

6.2 Does your agency maintain its metadata in an FGDC-endorsed, or ISO-compliant geospatial metadata standard format? (Select all that apply)

Clarifying text: Question does not include legacy datasets that are static and no longer modified or otherwise managed. Also, see the list of endorsed FGDC-endorsed standards https://www.fgdc.gov/standards/.

- Yes. Eligible non-legacy datasets have well maintained FGDC-endorsed or current ISO-compliant geospatial metadata.
- Partial. Some eligible datasets have well maintained FGDC-endorsed or current ISO-compliant geospatial metadata.
- Partial. Some eligible datasets have FGDC-endorsed or current ISO-compliant geospatial metadata, that needs to be reviewed or refreshed.
- No. Agency datasets do not use FGDC-endorsed or current ISO-compliant geospatial metadata standards.

7.1 Are there processes in place to ensure that, when appropriate, partners and stakeholders have visibility into agency geospatial data management activities (e.g., collection, integration, maintenance, dissemination and preservation)?

- Yes. There are processes in place for all agency mission areas.
- Yes. There are processes in place, but some mission areas do not have requirements for geospatial data management partnerships.
- Partial. There are processes in place for some agency mission areas, but not others.
- No. There are no processes in place. (Skip to question 7.3)

7.1.a If yes or partial to Question 7.1, which external partners and stakeholders are involved in data management activities? (Select all that apply and use the "other" textbox to add additional partners or stakeholders)

Clarifying text: The selection list provided was taken from the GDA, USC 43 Sec 2803(b)(C).

- Other federal agencies
- States
- Local governments
- Regional governments
- Tribal governments
- Private sector entities
- Geospatial information user industries
- Professional associations
- Scholarly associations
- Nonprofit organizations
- Academia
- Licensed geospatial data acquisition professionals
- Other (Textbox provided)

7.1.b If yes or partial to Question 7.1, what processes are in place to ensure partners and stakeholders are involved? (Select all that apply and use the "other" textbox to add additional processes)

Clarifying text: When answering this question think about activities such as using surveys, listening sessions, Request for Information, booths at stakeholder conferences.

- Market research
- Partnership outreach activities
- Expert consultations
- Advisory committee(s)
- Working group(s) and sub-committee(s)
- Steering committees
- Councils
- Engage with trade groups
- Feedback opportunities (e.g., contact email/phone, call center)
- Federal Register Notices
- Memoranda of Understanding
- Use other public comment processes
- Other (Textbox provided)

7.2 Does your agency build upon existing non-federal geospatial data?

- Yes. Agency builds upon existing non-federal geospatial data to the extent possible.
- Not applicable: no existing applicable data exists.
- Partial. Agency builds upon some existing non-federal geospatial data.
- No. Agency does not build upon existing non-federal geospatial data.

7.2.a If yes or partial to Question 7.2, what ways do you build upon existing non-federal geospatial data? (Select all that apply and use the "other" textbox to add additional ways)

- Procurement/acquisition/grant
- Research partnership
- Cooperative data collection or crowd sourcing
- Mission assignments or Interagency Agreements
- MOAs/data sharing agreements
- Other (Textbox provided)

8.3 Does your agency leverage geospatial information to enhance reporting to the public or to Congress?

- Yes. Agency broadly leverages geospatial information to enhance public and Congressional reporting.
- Not applicable: Agency does not leverage geospatial information in published reports.
- Partial. Agency leverages some geospatial information to enhance either public or Congressional reporting.
- No. Agency does not leverage geospatial information to enhance either public or Congressional reporting.

8.3.a If yes or partial, for which of these audiences does your agency leverage geospatial information to enhance reporting? (Select all that apply)

- Public reports (e.g., fact sheets, data briefs, Annual reports, other published agency reports).
- Congressional reports.
- Internal agency and leadership plans, reports and communications.
- Not applicable: agency does not leverage geospatial information in published reports.

11.3 If yes to Question 11.1, has your agency searched other sources to determine if data necessary to meet requirements already exists (either within or outside the agency) before collecting or acquiring new data? (Select all that apply and use the "other" textbox to briefly describe additional sources)

- Market research
- Cross-agency or partner coordination
- Expert consultation
- Database search
- Agency follows a documented process or official policy
- No additional assessments are done
- Other (Textbox provided)

12.2 If yes to Question 12.1, what methods does your agency employ to ensure quality in geospatial data collected from non-federal sources?

(Check all that apply and use the "other" textbox to briefly describe additional methods used to ensure quality for geospatial data acquired by procurement or grant process)

- Evaluate data for quality prior to any acquisition.
- Geospatial data quality standards are specified in contract documents.
- Independent verification and validation (IV&V).
- Staff data experts review and approve geospatial data deliverables.
- Data standards are enforced through automated processes such as database controls or script tools.
- The agency acquires data from another federal agency that is responsible for QA/QC.
- No official documented QA/QC process is in place for acquisition of geospatial data.
- Other (Textbox provided)