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The Geospatial Data Act of 2018

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SUMMARY

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The Geospatial Data Act of 2018

In the 114th and 115th Congresses, several bills entitled the Geospatial Data Act were introduced in the Senate and House of Representatives. Congress did not act on legislation introduced in the 114th Congress; however, in September 2018, a version of the bill, the Geospatial Data Act of 2018 (GDA), was included in H.R. 302, the FAA Reauthorization Act of 2018, as Subtitle F of Title VII. Congress passed H.R. 302 on October 3, 2018, and President Trump signed it into law on October 5 as P.L. 115-254.

The federal government has recognized the need to organize and coordinate the collection and management of geospatial data since at least 1990. In that year, the Office of Management and Budget (OMB) revised Circular A-16—which provides guidance regarding coordination of federal surveying, mapping, and related spatial data activities—to establish the Federal Geographic Data Committee (FGDC) and to promote the coordinated use, sharing, and dissemination of geospatial data nationwide. Past Congresses have recognized the challenge of coordinating and sharing geospatial data from the local, county, and state level to the national level and vice versa. Until enactment of the GDA, however, the executive branch had led nearly all efforts to better coordinate and share geospatial data within the federal government.

Stakeholders have long recognized the need to better organize and manage geospatial data among federal agencies and among the federal government, local and state authorities, the private sector, and academia. Some observers and stakeholders have commented that the GDA has the potential to improve the extent and efficiency of executive branch agency coordination of geospatial activities and thus to help minimize duplication of effort in acquiring and using geospatial data, saving taxpayers money. However, it could be argued that some level of duplication of effort, and of inefficiency in the management and sharing of geospatial information, will always exist across a vast federal bureaucracy in which a majority of government information has some geospatial component. It also could be argued that the size of the federal bureaucracy is only one factor contributing to the challenges of organizing and managing geospatial data; surveying and mapping activities themselves are prone to duplication of effort among the different missions and goals of the executive branch.

The GDA codifies aspects of OMB Circular A-16, authorizing many of its existing components and modifying or expanding upon other aspects. The GDA continues the FGDC and supports the goal of creating a National Spatial Data Infrastructure (NSDI), defined in the new law as "the technology, policies, criteria, standards, and employees necessary to promote geospatial data sharing throughout the Federal Government, State, tribal, and local governments, and the private sector (including nonprofit organizations and institutions of higher education)."

The GDA adds a number of congressional oversight components. For example, it adds a requirement for annual performance reporting from each of the federal agencies responsible for a specific geospatial topic (or theme), and it requires the FGDC to conduct a summary and evaluation of each agency in fulfilling the responsibilities listed in the GDA. The annual summaries and evaluations must be made available to the National Geospatial Advisory Committee (NGAC, charged with providing advice and recommendations to the FGDC). Further, the law requires the FGDC to make available to Congress, not less than every two years, a report summarizing and evaluating agency performance, comments from the NGAC, responses to those comments, and responses to comments from the responsible agencies themselves.

One long-standing issue for Congress has been the cost of geospatial activities to the federal government—namely, what it costs to acquire, manage, share, and use geospatial data. To help address that concern, the GDA requires the responsible federal agencies to inventory and assess their geospatial data assets as part of their annual budget submissions. The GDA potentially could illuminate for Congress how each responsible agency budgets for its geospatial activities, which may allow Congress to better evaluate what portion of agency appropriations contributes to the federal geospatial enterprise. This information could enable Congress to query the Director of OMB (the vice-chairperson of the FGDC), about the budgetary implications of agency expenditures on geospatial-related activities in each budget cycle.

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Background and Legislative History

The federal government has recognized the need to organize and coordinate the collection and management of geospatial data since at least 1990. In that year, the Office of Management and Budget (OMB) revised Circular A-16—which provides guidance regarding coordination of federal surveying, mapping, and related spatial data activities—to establish the Federal Geographic Data Committee (FGDC) and to promote the coordinated use, sharing, and dissemination of geospatial data nationwide.[1] OMB Circular A-16 also called for the development of a national resource for digital spatial information to enable the sharing and transfer of spatial data between users and producers, linked by criteria and standards. Executive Order 12906, issued in 1994,[2] strengthened and enhanced Circular A-16 and specified that the FGDC shall coordinate development of the National Spatial Data Infrastructure (NSDI).

Historically, the federal government has been a primary provider of authoritative geospatial information; however, the federal government has shifted, with some important exceptions, to consuming rather than providing geospatial information from a variety of sources. As a result, the federal government's role also has shifted toward coordinating and managing geospatial data and facilitating partnerships among the producers and consumers of geospatial information in government, the private sector, and academia.

There are long-standing challenges to coordinating how geospatial data are acquired and used at the local, state, and federal levels—avoiding duplicative data sets, for example—and in collaboration with the private sector. Past Congresses have recognized these challenges. For example, the 108th Congress explored issues of cost, duplication of effort, and coordination of geospatial information in a series of hearings.[3] Bills introduced in previous Congresses would have addressed aspects of the geospatial enterprise, but none were enacted.[4] Until enactment of the Geospatial Data Act of 2018, the executive branch had led nearly all efforts to better coordinate and share geospatial data within the federal government.[5]

In the 114th Congress, Senator Orrin Hatch introduced S. 740, the Geospatial Data Act of 2015, a bill that essentially would have codified Circular A-16 and provided Congress with additional capabilities to oversee the federal geospatial enterprise, among other authorities. Representative

[1] Office of Management and Budget (OMB) Circular A-16 was last revised on August 19, 2002. See OMB, *Coordination of Geographic Information and Related Spatial Data Activities: Circular A-16 Revised*, at https://www.fgdc.gov/policyandplanning/a-16/circular-A-16.pdf. The circular "provides direction for federal agencies that produce, maintain or use spatial data either directly or indirectly in the fulfillment of their mission."

[2] Executive Order 12906, "Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure," 59 *Federal Register* 71, April 13, 1994, at http://www.fgdc.gov/policyandplanning/executive_order.

[3] In 2003 and 2004, the Subcommittee on Technology, Information Policy, Intergovernmental Relations, and the Census, part of the House Committee on Government Reform, held two hearings on the nation's geospatial information infrastructure. A common theme to both hearings was the challenge of coordinating and sharing geospatial data between the local, county, state, and national levels.

[4] See, for example, H.R. 1604 (113th Congress), the Map it Once, Use it Many Times Act, and H.R. 2199 (115th Congress), the Federal Land Asset Inventory Reform Act of 2017.

[5] When Circular A-16 was issued in 1953, it aimed to avoid duplication of effort and included details about coordinating federal mapping activities. As digital geospatial data became more widespread, revisions to Circular A-16 in 1990 and 2002 extended coordination of federal efforts to include digital data and broadened the mandate to coordinate federal geospatial activities. See also Milo Robinson, *A History of Spatial Data Coordination*, Federal Geographic Data Committee (FGDC), white paper available via the National Geospatial Advisory Committee, May 2008, at http://www.fgdc.gov/ngac/a-history-of-spatial-data-coordination.pdf.

Bruce Westerman subsequently introduced companion legislation, H.R. 6294. Congress did not act on either bill.

In the 115th Congress, Senator Hatch introduced S. 1253, the Geospatial Data Act of 2017, on May 25, 2017; Representative Westerman introduced companion legislation, H.R. 3522, on July 27, 2017. Later that year, on November 15, Senator Hatch introduced a slightly different version of the bill, S. 2128; Representative Westerman introduced the House version, H.R. 4395, on the same day.

Several other versions of the bill were circulated without formal introduction in 2018. In September 2018, another version of the bill, the Geospatial Data Act of 2018 (GDA), was included in H.R. 302, the FAA Reauthorization Act of 2018, as Subtitle F of Title VII. On October 3, 2018, Congress passed the bill. On October 5, 2018, President Trump signed it into law as P.L. 115-254.

This report provides a summary and analysis of each section of the GDA. It also discusses possible implications of the new law and issues for Congress.

Overview of the Geospatial Data Act of 2018

The GDA codifies aspects of Circular A-16, authorizing many of the circular's existing components and modifying or expanding upon other aspects. The GDA continues the Federal Geographic Data Committee and supports the goal of creating a National Spatial Data Infrastructure. It also adds several congressional oversight components; for example, it adds a requirement for annual performance reporting from each of the covered agencies to the FGDC, and it requires a summary and evaluation by the FGDC of each agency in fulfilling the responsibilities listed in the GDA. The annual summaries and evaluations must be made available to the National Geospatial Advisory Committee (NGAC), and the law directs the FGDC to respond to comments from the NGAC. Further, it requires the FGDC to make available to Congress, not less than every two years, a report summarizing and evaluating agency performance, comments from the NGAC, responses to those comments, and responses to comments from the covered agencies themselves.

The following is a brief summary and analysis of each section of the GDA, referencing section numbers as enumerated in the enacted bill under Subtitle F-Geospatial Data, Title VII, of P.L. 115-254, the FAA Reauthorization Act of 2018.

Section-by-Section Summary and Analysis

The GDA provisions are in Sections 751-759 of Title VII of P.L. 115-254.

Section 751. Short Title; Findings

The short title of the subtitle is the Geospatial Data Act of 2018. Section 751 includes a Findings provision with three components:

1. Open and publicly available data is essential to the successful operation of the GeoPlatform (discussed below in "Section 758. GeoPlatform").
2. The private sector is invaluable, for the purposes of acquiring and producing geospatial data and data services, to carrying out the missions of the federal departments and agencies, and in contributing to the U.S. economy.

3. Congress has for two decades passed legislation promoting greater access and use of federal information and data, which has had multiple positive effects on businesses, the economy, scientific research, and other aspects of the nation.

Section 752. Definitions

Section 752 defines 14 terms used in the GDA. Many of these terms are included and explained or defined in Circular A-16, but some are not, such as the *National Geospatial Advisory Committee (NGAC)*, *GeoPlatform*, *intelligence community*, and *covered agency*.

Under the GDA, a *covered agency* is an executive department, as defined in 5 U.S.C 101, that collects, produces, acquires, maintains, distributes, uses, or preserves geospatial data on paper or in electronic form to fulfill the agency's mission, either directly or through a relationship with another organization, including a state, local government, Indian tribe, institution of higher education, business partner or contractor of the federal government, and the public. In addition to the executive departments included in 5 U.S.C. 101, the GDA also counts the National Aeronautics and Space Administration and the Environmental Protection Agency as covered agencies. Section 752 excludes the Department of Defense (including 30 components and agencies performing national missions) or any element of the intelligence community from its definition of the term *covered agency*.[6]

OMB Circular A-16 includes definitions for additional terms in its Appendix D and other locations; however, the GDA expands upon some of those terms, such as the definition for *geospatial data*. In OMB Circular A-16, geospatial data are "information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the Earth." The GDA is more descriptive:

> [Geospatial data] (A) means information that is tied to a location on the Earth, including by identifying the geographic location and characteristics of natural or constructed features and boundaries on the Earth, and that is generally represented in vector datasets by points, lines, polygons, or other complex geographic features or phenomena; (B) may be derived from, among other things, remote sensing, mapping, and surveying technologies; (C) includes images and raster datasets, aerial photographs, and other forms of geospatial data or datasets in digitized or non-digitized form.

Also, the GDA describes which types of data and activities are not included under the definition of geospatial data. For example, geospatial activities of an Indian tribe are not included under the definition if they are not, in whole or in part, carried out using federal funds, as determined by the tribal government. Classified national security-related geospatial data activities of the Department of Defense and the Department of Energy are not included. Intelligence geospatial data activities, as determined by the Director of National Intelligence, are excluded. The GDA also excludes geospatial data and activities under 10 U.S.C. 22, or Section 110 of the National Security Act of 1947 (50 U.S.C. 3045).

Some of the other terms defined in Circular A-16 are changed or expanded in the GDA. For example, in the GDA, *data theme* is defined and explained as *NGDA data theme*.[7] The shift

[6] The term *intelligence community* has the meaning given that term in Section 3 of the National Security Act of 1947 (50 U.S.C. 3003).

[7] NGDA is the acronym for National Geospatial Data Asset. The term *NGDA data theme* means core geospatial datasets (including electronic records and coordinates) relating to a topic or subject designated under Section 756 of the GDA.

reflects a name change under this section and points to a fuller description in Section 756 of the GDA (see "Section 756. NGDA Data Themes").

Section 753. Federal Geographic Data Committee

The GDA codifies the continuation of an existing federal interagency committee, the FGDC, established under Circular A-16. The FGDC is the primary entity for developing, implementing, and reviewing the policies, practices, and standards relating to geospatial data according to the guidelines and requirements under Circular A-16, including implementation of the NSDI (see "Section 755. National Spatial Data Infrastructure"). The GDA codifies duties and responsibilities of the FGDC that are described in Circular A-16. Those duties include FGDC being the lead entity for development and management of the NSDI, among others.

The GDA mandates that the Secretary of the Interior and the Director of OMB shall serve as chairperson and vice chairperson of the committee, respectively. This provision codifies the roles for chairperson and vice chairperson under the current FGDC leadership. The GDA requires that the head of each covered agency and the Director of the National Geospatial-Intelligence Agency (NGA) designate a representative of their respective agencies to serve as a member of the FGDC.[8] Also, the GDA requires the Director of OMB to update guidance regarding membership on the FGDC within a year of enactment (October 2019).

In addition to codifying duties and responsibilities (13 total) mostly described in Circular A-16, the GDA requires the FGDC to make available online, and to update at least annually, a summary of the status for each National Geospatial Data Asset (NGDA) data theme, based on annual reports submitted by each covered agency. The summary must include a determination of the agency's progress toward its specific responsibilities for its NGDA data theme(s) under Section 756 of the GDA. The law also requires the FGDC to determine the progress achieved for other, more general agency responsibilities described in Section 759. In each of these cases, the GDA directs the FGDC to determine if each covered agency (1) met expectations, (2) made progress toward expectations, or (3) failed to meet expectations.

The GDA requires the FGDC to make available the annual summaries and evaluations of covered agency performance, described above, to the NGAC (described in "Section 754. National Geospatial Advisory Committee") and to respond to comments upon request from the NGAC about the annual summaries and evaluations. In addition, the law requires the FGDC, not less than once every two years, to submit to Congress a report that includes the summaries and evaluations of covered agency performance, comments from the NGAC, and FGDC responses to those comments. Further, it requires the FGDC to make available the annual summaries and evaluations to the covered agencies, to seek comments from them, and, not less than every two years, to submit to Congress a report that includes the comments and responses. The summaries, evaluations, responses, and reports are not currently required under OMB Circular A-16.

Lastly, Section 753 of the GDA requires the FGDC to establish an Office of the Secretariat with the Department of the Interior (DOI) to provide administrative support, strategic planning, funding, and technical support to the FGDC.

[8] The agency representatives selected to be members of the FGDC are required to hold a position as an assistant secretary (or an equivalent position) or a higher-ranking position.

Section 754. National Geospatial Advisory Committee

The GDA codifies an established advisory committee (the National Geospatial Advisory Committee, or NGAC). It specifies that DOI will administer the NGAC. The current NGAC was established under the discretionary authority of the Secretary of the Interior in accordance with the provisions of the Federal Advisory Committee Act, as amended.[9] Similar to its current charge, the NGAC will continue to provide advice and recommendations to the FGDC chairperson relating to the management of federal and national geospatial programs, the development of the NSDI, and other activities relating to GDA implementation. The NGAC also will review and comment on geospatial policy and management issues, and it will ensure that the views of representatives of nonfederal interested parties involved in national geospatial activities are conveyed to the FGDC.

The NGAC will meet and act "at such times and places as the Advisory Committee considers advisable to carry out this subtitle," and all meetings will be open to the public. The NGAC, with concurrence of the FGDC chairperson, may secure information from federal agencies to carry out its duties under the GDA.[10]

According to the GDA, the NGAC will be composed of not more than 30 members appointed by the FGDC chairperson. The members shall be selected to achieve a balanced representation of different viewpoints on national geospatial activities and the development of the NSDI and shall take into consideration the geographic balance of residence of its members. Members shall be selected from groups including states, local governments, regional governments, tribal governments, the private sector, geospatial information user industries, professional associations, scholarly associations, nonprofits, academia, licensed geospatial data acquisition professionals, and the federal government. The GDA requires that at least one member of the NGAC be from the NGA.

Members will be allowed to serve no more than two consecutive three-year terms, with the exception of the member from the NGA, who is not subject to the two-consecutive-term limit (the GDA does not specify a term limit for the member from NGA). Also, the Office of the Secretariat established under the previous section shall provide administrative support to the NGAC as well as to the FGDC.

Section 755. National Spatial Data Infrastructure

The NSDI originally was conceived in Executive Order 12906 as "the technology, policies, standards, and human resources necessary to acquire, process, store, distribute, and improve utilization of geospatial data."[11] The GDA appears to support this concept generally but not precisely. In Section 752, the GDA defines the term *National Spatial Data Infrastructure* to mean "the technology, policies, criteria, standards, and employees necessary to promote geospatial data sharing throughout the Federal Government, State, tribal, and local governments, and the private sector (including nonprofit organizations and institutions of higher education)."

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[9] Federal Advisory Committee Act, 5 U.S.C. Appendix 2. The current charter for the National Geospatial Advisory Committee (NGAC) can be found at https://www.fgdc.gov/ngac/ngac-charter.

[10] The GDA also would direct the NGAC to include in its comments to the FGDC regarding the covered agencies any failure by a federal agency to furnish information to the NGAC upon request.

[11] The concept for the National Spatial Data Infrastructure was first proposed in Executive Order 12906, "Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure," 59 *Federal Register* 71, April 13, 1994, at http://www.fgdc.gov/policyandplanning/executive_order.

Section 755 states that the NSDI's purpose shall be to ensure that geospatial data from multiple sources (covered agencies, state, local, and tribal governments; private sector; institutions of higher education) are available and easily integrated to enhance the understanding of the physical and cultural world.

The GDA establishes two goals for NSDI. Under the first goal,

- geospatial data are to be reviewed prior to disclosure to ensure privacy and security of personal data;[12]
- geospatial data are designed to enhance the accuracy of statistical information, both in raw form and in derived products;
- the public has free and open access to geospatial data, information, and interpretive products, in accordance with OMB Circular A-130;[13]
- proprietary interests related to licensed information and data are protected; and
- interoperability and sharing capabilities of federal information systems and data are ensured.

The second goal is to support and advance the establishment of a global spatial data infrastructure, consistent with certain requirements, including that covered agencies develop international geospatial data in accordance with international voluntary consensus standards.[14]

The GDA requires that the FGDC prepare and maintain a strategic plan for the NSDI.[15] It further requires that the FGDC advise federal and nonfederal users of geospatial data on their responsibilities relating to the implementation of the NSDI.

Section 756. NGDA Data Themes

Section 756 requires the FGDC to designate NGDA data themes, which are primary topics and subjects—such as elevation, federal land ownership, vegetation, or marine boundaries—for which the coordinated development, maintenance, and dissemination of geospatial data would benefit the federal government and people of the United States.[16] The GDA requires that the data themes "be representations of conceptual topics describing digital spatial information for the Nation," and contain associated datasets "(A) that are documented, verifiable, and officially designated to

[12] The GDA requires compliance with 5 U.S.C. 552a (commonly known as the Privacy Act of 1974). It also requires that personally identifiable information not be disclosed, among other things.

[13] OMB, "Circular A-130: Managing Information as a Strategic Resource," at https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A130/a130revised.pdf. The circular "establishes policy for the management of federal information resources."

[14] As defined in OMB, "Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," revised January 22, 2016, at https://www.nist.gov/document/revisedcirculara-119asof01-22-2016.pdf.

[15] The most current strategic plan for the NSDI is available at https://www.fgdc.gov/nsdi-plan.

[16] The FGDC endorsed the set of current data themes in February 2013, following OMB Circular A-16 Supplemental Guidance, which elucidated a process to modify the Circular A-16 Appendix E themes. The original set of 34 Appendix E themes was reduced to 16 themes: biota, cadastre, climate and weather, cultural resources, elevation, geodetic control, geology, governmental units and administrative and statistical boundaries, imagery, land use-land cover, real property, soils, transportation, utilities, water-inland, water-oceans and coasts. See the 2013 FGDC Annual Report, at https://www.fgdc.gov/resources/whitepapers-reports/annual%20reports/2013/web-version/index_html. See also FGDC, "NGDA Themes," at https://www.fgdc.gov/what-we-do/manage-federal-geospatial-resources/a-16-portfolio-management/themes.

meet recognized standards; (B) that may be used in common; and (C) from which other datasets may be derived."

The GDA requires the FGDC to designate one or more covered agencies as the lead covered agency for each data theme. The lead covered agencies for each theme are responsible for coordinating management of the data theme, providing supporting resources for managing the data, and providing other services and products related to the data theme. Each lead covered agency is charged with five specific responsibilities for its data theme:

1. Provide leadership for developing and implementing geospatial data standards for the theme.
2. Provide leadership, develop, and implement a plan for nationwide population of the data theme.
3. Establish goals that support the strategic plan for the NSDI.
4. Collect and analyze information from geospatial data users regarding user needs and incorporate those needs into strategies for the data theme.
5. Designate a point of contact within the agency who will be responsible for developing, maintaining, coordinating, and disseminating data using the GeoPlatform (see "Section 758. GeoPlatform").

The lead covered agency also is required to submit a performance report at least annually to the FGDC. The performance report includes progress made toward fulfilling the specific responsibilities for each data theme and comments in response to the subsequent summary and evaluation of the performance report provided by the FGDC. The FGDC will summarize and evaluate these reports, as described above. The covered agencies will have the opportunity to comment on the summaries and evaluations provided by the FGDC.

Section 757. Geospatial Data Standards

The GDA requires the FGDC to establish standards for each of the NGDA data themes discussed above,[17] which include rules, conditions, guidelines, and characteristics. The GDA also requires the FGDC to establish content standards for metadata.[18] The standards are to be consistent with international standards to the maximum extent practicable. They also are to include international data standards acceptable for the purposes of declassified intelligence community data, and they are to be reviewed and updated periodically. Further, the GDA requires the FGDC to develop and promulgate the standards according to OMB Circular A-119 or its successor and to consult with a broad range of data users and providers.[19] To the maximum extent possible, the GDA requires the FGDC to use national and international standards adopted by voluntary consensus bodies and to establish new standards if they do not already exist.

Section 757 also contains an exclusion from public disclosure of any information that reasonably could be expected to cause damage to the national interest, security, or defense of the nation,

[17] In accordance with 44 U.S.C. 3501 note, also referred to as Section 216 of the E-Government Act of 2002.

[18] Metadata are information about geospatial data, such as content, source, vintage, spatial scale, accuracy, projection, and others.

[19] See OMB, "Circular A-119 Revised: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," February 10, 1998, at https://obamawhitehouse.archives.gov/omb/circulars_a119/. The circular "establishes policies on federal use and development of voluntary consensus standards and on conformity activities."

including information relating to geospatial intelligence data activities, as determined in consultation with the Director of National Intelligence.

Section 758. GeoPlatform

The GDA requires the FGDC to operate an electronic service providing access to geospatial data and metadata to the general public. This service is to be known as the GeoPlatform. The GDA requires the GeoPlatform to be made available through the internet; to be accessible through a common interface; to include metadata for all geospatial data collected, directly or indirectly,[20] by covered agencies; and to include a set of programming instructions and standards that would provide an automated means of accessing geospatial data and could include data from sources other than covered agencies.

The GDA forbids the GeoPlatform to store or serve proprietary information or data acquired under a license by the federal government, unless authorized by the data provider. The GDA also requires the FGDC chairperson to designate an agency to serve as the managing partner for developing and operating the GeoPlatform.

Section 759. Covered Agency Responsibilities

Section 759 of the GDA has three main parts: (1) covered agency responsibilities, (2) reporting, and (3) audits.

Responsibilities

The GDA lists 13 responsibilities for each covered agency, paraphrased as follows:

1. Prepare and implement a strategy for advancing geospatial data activities appropriate to the agency's mission.
2. Collect, maintain, disseminate, and preserve geospatial data such that resulting data, information, or products can be shared.
3. Promote geospatial data integration.
4. Ensure that geospatial information is included on agency record schedules that have been approved by the National Archives and Records Administration.
5. Allocate resources to fulfill geospatial data responsibilities.
6. Use geospatial data standards.
7. Coordinate with other federal agencies, state, local, and tribal governments, institutions of higher education, and the private sector.
8. Make federal geospatial information more useful to the public, enhance operations, support decision making, and enhance reporting to the public and to Congress.
9. Protect personal privacy and maintain confidentiality in accordance with federal policy and law.
10. Participate in determining whether declassified data can become part of the NSDI.

[20] Indirectly collected data includes data that would be collected by other parties, such as a state, county, private company, academic institution, or other organization, rather than directly by the covered agency.

11. Search all sources to determine if existing data meet the needs of the covered agency before expending funds to acquire geospatial data.
12. Ensure that those receiving federal funds for geospatial data collection provide high-quality data.
13. Appoint a contact to coordinate with other lead covered agencies.

Reporting

The GDA requires each covered agency to submit an annual report to the FGDC regarding the 13 responsibilities listed above. It also requires the covered agencies to include geospatial data as a capital asset for purposes of preparing the President's budget submission under 31 U.S.C. 1105(a) and 1108. Each covered agency is required to maintain an inventory of geospatial data assets in accordance with OMB Circular A-130 and is required to submit an annual report to Congress identifying federal-wide geospatial assets.[21]

In addition, the GDA requires each covered agency to disclose each contract, cooperative agreement, grant, or other transaction that deals with geospatial data.[22]

The GDA requires OMB to take into consideration the summary and evaluations of the covered agency annual reports provided by the FGDC in its evaluation of the budget justification from each covered agency. It also requires OMB to include a discussion of the summaries and evaluation of progress toward establishing the NSDI in each E-government status report submitted under 44 U.S.C. 3606.

Audits

The GDA requires the inspector general of each covered agency (or some other senior ethics official of a covered agency without an inspector general) to submit to Congress an audit not less than once every two years of the collection, production, acquisition, maintenance, distribution, use, and preservation of geospatial data by the covered agency. The audit requires a review of the covered agency's compliance with the requirements established under Section 757, with the 13 responsibilities for each covered agency listed in Section 759, and with the limitation on the use of federal funds in Section 759A (discussed below).

Section 759A. Limitation on Use of Federal Funds

The GDA prohibits the use of federal funds by a covered agency for the collection, production, acquisition, maintenance, or dissemination of geospatial data that does not comply with applicable standards established under Section 757 (discussed above), as determined by the FGDC. The prohibition goes into effect after five years from the date on which the FGDC establishes standards for each NGDA theme (specified in this section as the *implementation date*). The GDA provides an exemption—allowing the maintenance and dissemination of geospatial data—if those geospatial data are collected, produced, or acquired by the covered agency prior to the implementation date.

[21] The geospatial assets are as defined in OMB Circular A-16, as set forth in OMB memo M-11-03, "Issuance of OMB Circular A-16 Supplemental Guidance," November 10, 2010.

[22] This disclosure may include posting the information on www.USAspending.gov and www.itdashboard.gov or its successors.

Section 759A of the GDA provides the FGDC chairperson authority to grant a waiver to the limitation, upon request from a covered agency, subject to several requirements that the requesting covered agency would need to meet.

Sections 759B and 759C. Savings Provision; Private Sector

Section 759B states "Nothing in this subtitle shall repeal, amend, or supersede any existing law unless specifically provided in this subtitle." Section 759C states "The [FGDC] and each covered agency may, to the maximum extent practical, rely upon and use the private sector in the United States for the provision of geospatial data and services."

Issues for Congress

Stakeholders have long recognized the need to better organize and manage geospatial data among federal agencies and among the federal government, local and state authorities, the private sector, and academia. Some observers have commented that the GDA has the potential to improve the extent and efficiency of executive branch agency coordination of geospatial activities and thus to help minimize duplication of effort in acquiring and using geospatial data, saving taxpayers money.[23] However, others have argued that some level of duplication of effort, and of inefficiency in the management and sharing of geospatial information, will always exist across a vast federal bureaucracy in which a large amount of government information has some geospatial component.[24] It also could be argued that the size of the federal bureaucracy is only one factor contributing to the challenges of organizing and managing geospatial data. Surveying and mapping activities themselves are prone to duplication of effort among the executive branch's different missions and goals.[25]

The GDA largely codifies an executive branch structure for managing the federal geospatial enterprise under OMB Circular A-16, coordinated under the auspices of the FGDC. The law, however, adds budgeting and reporting requirements for executive branch agencies that provide Congress with a number of avenues for conducting oversight on how well the federal government manages its geospatial data assets.

The GDA requires that covered agencies, for example, inventory and assess their geospatial data assets as part of their annual budget submissions. This requirement could address long-standing issues about the extent and valuation of geospatial data and associated infrastructure within each agency—namely, what it costs the federal government to acquire, manage, share, and use geospatial data. The GDA potentially could illuminate for Congress how each covered agency budgets for its geospatial activities and thus could allow Congress to better evaluate what portion

[23] See, for example, American Association of Geographers, "AAG Announces Passage of the Geospatial Data Act," October 3, 2018, at http://www.aag.org/galleries/default-file/Oct_2018_Newsletter_GDA_Announcement.pdf; and Times Record Staff, "Geospatial Data Act Expected to Cut Costs," *Times Record*, October 2, 2018, at http://www.swtimes.com/news/20181002/geospatial-data-act-expected-to-cut-costs.

[24] According to the Department of the Interior, the amount of government information that has a geospatial component—such as address or other reference to a physical location—is as much as 80%. Cited in U.S. General Accounting Office, *Geographic Information Systems: Challenges to Effective Data Sharing*, GAO-03-874T, June 10, 2003, p. 5. The FGDC's *2006 Annual Report* claimed that 80%-90% of government information has a spatial component, see https://www.fgdc.gov/resources/whitepapers-reports/annual%20reports/2016/index_html. (The General Accounting Office became the Government Accountability Office effective July 7, 2004.)

[25] Recognition of the inherent propensity for duplication of effort arguably was first addressed by Executive Order 493, issued by President Theodore Roosevelt on August 10, 1906 (Executive Order (E.O.) 493, "Official title of the U.S. Board on Geographic Names changed to 'U.S. Geographic Board'," August 10, 1906). That order allowed the United States Geographic Board to review mapping projects to avoid duplication and to facilitate standardized mapping.

of agency appropriations contributes toward the federal geospatial enterprise. This information may enable Congress to query the Director of OMB (a vice-chairperson of the FGDC), about the budgetary implications of agency expenditures on geospatial-related activities in each budget cycle.

The GDA also contains a number of reporting requirements which may enable Congress to evaluate covered agencies' progress toward implementing requirements for data themes and other metrics under the new law. The GDA requires that agency evaluations, comments received from the NGAC, and responses to those comments be made available publicly. Thus, Congress would have the ability to evaluate in some detail individual agency performance, the progress made in coordinating the broader geospatial enterprise via the FGDC, and the views from outside stakeholders as represented by members of the NGAC. The requirement for biannual audits by agency inspectors general under Section 759 of the GDA provides Congress with another tool to evaluate covered agency performance.

Another potentially useful provision within Section 756 of the GDA, for the purposes of coordination among agencies, is the requirement that each covered agency designate a point of contact "who shall be responsible for developing, maintaining, coordination relating to, and disseminating data" related to the geospatial data theme under that covered agency's responsibility. That requirement could enhance communication and coordination of geospatial activities within the executive branch, a theme raised by Congress in hearings during 2003 and 2004. A single point of responsibility and knowledge in each agency also may assist Congress in its oversight activities.

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