Background

Since its inception, the federal government has been concerned with geography, producing and using maps which were sometimes in the form of charts (e.g., nautical charts). This need was for many purposes and by different federal agencies who often produced their own maps to address their own need. While these maps contained common elements to all users, there was no standard that agencies followed in capturing and recording those elements. Initially it was just duplicate maps but even then the federal government tried to reduce duplication when in 1909 it created the U.S. Geographic Board and then in 1919 replaced it with the Board of Surveys and Maps. Then in 1942 the Board was abolished and its functions were transferred to the Bureau of the Budget (today’s Office of Management and Budget (OMB)). In 1953 OMB issued Circular A-16 that described federal agencies responsibilities to coordinate surveying and mapping activities. All of these were accomplished by executive actions not legislative.

Circular A-16 was subsequently revised to better describe agency responsibilities but by the 1980s when many federal agencies began adopting computer mapping systems which were expensive and often incompatible with one another that the administration began to consider ways to reduce duplication, create and adopt standards and coordinate geospatial data. That resulted in the 1990 revision of OMB Circular A-16 that established the Federal Geographic Data Committee and the 1994 Executive Order 12906 that established the National Spatial Data Infrastructure (NSDI). While these executive actions improved the coordination and standardization of federal geospatial data, it lacked legislative action and Congressional oversight which allowed inconsistent implementation.

This was remedied in 2018 with the passage of the Federal Geospatial Data Act of 2018 (GDA) signed by the President on October 5, 2018 as part of the FAA Reauthorization Act of 2018 (H.R. 302). Introduced in both Chambers of Congress on November 15, 2017 as House bill H.R. 4395 and Senate bill S.2128 it was ultimately included with minor changes into the FAA Reauthorization bill.

Why the Geospatial Data Act?

Congress determined that solely depending on Executive Orders (EO 12906 & 13286), Office of Management and Budget directives (OMB Circular A-16) and other executive documents was not achieving the effectiveness hoped for in reducing the duplication and waste in the procurement, use and availability of federal geospatial data. The GDA is intended to codify the previous executive actions and give Congress a clearer oversight role for federal geospatial data expenditures.
URISA members and all GIS professionals should be interested in the GDA because the federal government is now being directed by Congress to define requirements and review the agencies that are affected.

The GDA codifies:

- The FGDC as the primary federal entity for developing, coordinating, implementing, and reviewing the policies, practices, and standards for geospatial data.
- The National Geospatial Advisory Committee (NGAC) to the FGDC which includes local government representation and had URISA members serving on it.
- The NSDI and National Spatial Data Asset (NGDA) data themes and their maintenance and management.
- The GeoPlatform to share geospatial data among federal agencies and with non-federal agencies, acquire data from non-federal sources if possible, and make their data easy to access for the public.

The Federal Geographic Data Committee (FGDC), is now in the process of implementing the GDA.

Below are frequently asked questions (FAQ) about the GDA and where you can read the text of the bill and the Congressional committees that will be reviewing it.

**What are the key elements in the Geospatial Data Act?**

Much of the language in the GDA is similar to OMB Circular A-16 and Executive Orders 12906 & 13286. Below is a brief summary of the key elements.

It establishes in statute the Federal Geographic Data Committee (FGDC) “for the development, implementation, and review of policies, practices, and standards relating to geospatial data.” It makes the Chair the Secretary of the Interior and Vice Chair the OMB Director, which is how it’s structured today. It says the FGDC shall “lead the development and management of and operational decision making for the National Spatial Data Infrastructure [NSDI] strategic plan and geospatial policy ...” and “designate National Geospatial Data Asset [NGDA] themes and oversee the coordinated management of the National Geospatial Data Asset data themes ...” The FGDC will “not less than every 2 years, submit to Congress a report ...” on the progress and status of each NGDA data theme (including the NSDI) and an evaluation of each lead covered agency.

The GDA formally establishes the National Geospatial Advisory Committee (NGAC) and its duties and composition. As indicated above, the GDA formalizes the NSDI and NGDA data themes. Continuing its current practice, the GDA directs the FGDC to establish standards for each NGDA data theme. Finally, the GDA directs the FGDC to “operate an electronic service that provides access to geospatial data and metadata for geospatial data to the general public, to be known as the GeoPlatform.

URISA members should be encouraged by the GDA’s direction in Sec.759 Covered Agency Responsibilities (43 USC Ch. 46 Sec. 2808) to “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.”
Why is the National Spatial Data Infrastructure [NSDI] important?

As defined in the GDA, the NSDI “…means 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 NSDI shall “…ensure that geospatial data from multiple sources (including the covered agencies, State, local, and tribal governments, the private sector, and institutions of higher education) is available and easily integrated to enhance the understanding of the physical and cultural world.” It is the role of the FGDC to prepare and maintain the NSDI Strategic Plan. Several of the NSDI goals are to provide “free and open access for the public to geospatial data, information, and interpretive products…”, “that geospatial data are designed to enhance the accuracy of statistical information…”, “the interoperability and sharing capabilities of Federal information systems and data to enable the drawing of resources from covered agencies and partners of covered agencies…” and to protect personal information as well as proprietary data. Also, the NSDI shall “support and advance the establishment of a Global Spatial Data Infrastructure…”

While the NSDI has grown over the years to encompass additional data themes, the original seven NSDI Framework Data Themes consists of; Geodetic Control, Elevation, Hydrography, Cadastral, Orthoimagery, Transportation, and Government Units. The Address Data Theme was added to the NSDI Framework in 2016 in which URISA played a key role.

URISA participates in the Coalition of Geospatial Organizations (COGO) NSDI Report Card which reviews and grades the implementation of the NSDI. First published in 2015 and revised in 2018, it is now in the process of being updating for a third edition targeted to be published Summer 2022.

Where can I find more information on Geospatial Data Act of 2018?

The Geospatial Data Act of 2018 legislation can be found in Subtitle F Geospatial Data, Sections 751-759 of H.R. 302 FAA Reauthorization Act of 2018 (pages 228-242 in the PDF). Please note that this bill was once referred to as the Sports Medicine Licensure Clarity Act of 2017 which is still in the bill, but the FAA reauthorization amended this bill and it became the dominant subject so they changed the title.

The Federal Geographic Data Committee (FGDC) has a webpage dedicated to the GDA where you can find summaries of the legislation and its codification in U.S. law as well as an FAQ and reports on its implementation.

- FGDC GDA page:  [https://www.fgdc.gov/gda](https://www.fgdc.gov/gda)

For additional sources of the codified language:


  Selecting PDF results in a nicely formatted two column version

- Cornell Law School’s Legal Information Institute:  [https://www.law.cornell.edu/uscode/text/43/2801](https://www.law.cornell.edu/uscode/text/43/2801)

  Provides an HTML version with links
Geospatial Data Act legislative history and URISA

The GDA was first introduced in Congress in 2015. That version did not contain anything about how geospatial data and services was to be procured. URISA, and many other geospatial organizations supported the bill but the Management Association for Private Photogrammetric Surveyors (MAPPS) objected to the lack of procurement language and lobbied for its inclusion, especially that some procurement should follow the Brooks Act which requires the Qualifications-Based Selection process. The legislation wasn’t acted on during the term and died.

On May 25, 2017 a revised version of the Geospatial Data Act was introduced in the Senate as S.1253. A companion bill, H.R. 3522, was introduced in the House on July 27, 2017. This version had an expanded definition of geospatial and two new sections. Section 11 Use of the Private Sector directed that Federal agencies use private entities “to the maximum extent practical” for providing or continuing geospatial activities and to place geospatial under “surveying and mapping” which was expanded to require all procurement to follow the Brooks Act, although that was not the author’s original intent. Section 12 Relationship to State Law required any geospatial work for the Federal government to follow state licensing laws which in some states would impact GIS firms.

URISA objected to this new version which had potentially onerous impacts on the GIS community and could limit who can perform and bid on GIS projects.

Many geospatial organizations became concerned with the wording in the bill. The first organization to publicly raise concerns was the American Association of Geographers (AAG). This was followed by an analysis done by URISA’s Policy Advisory Committee (PAC) which indicated the possible impact of the new language could be problematic. Several geospatial blogs also commented on the bill’s potential impact. Based on the PAC’s recommendation, the URISA Board issued a letter stating its withdrawal of support for the GDA until the language was revised to its satisfaction.

The Coalition of Geospatial Organization (COGO), of which URISA is a founding member, met at the 2017 Esri User Conference to review the GDA. It was there that URISA, AAG, and other organizations voiced their opposition to the GDA as it was currently worded. COGO formed a subcommittee, which included URISA, to look into revising the language but, after meeting several times, could not come to an agreement.

URISA and other organizations met with the staffs of Senators Hatch and Warner, who were the sponsors of the bill to voice our objections to the current language in the bill and to work towards a possible solution. Knowing that MAPPS would object but that most of the other geospatial organizations and many geospatial firms would support the revised language, they went ahead and agreed to removing sections 11 and 12. A new version of the GDA was introduced instead of amending the original.

The revised version of the Geospatial Data Act of 2017 introduced in the Senate and House on November 15, 2017 removed the language that URISA and other geospatial organizations found objectionable, especially Sections 11 and 12. The Senate bill is S.2128. It was introduced by Senators Orrin Hatch (R-UT) and Mark Warner (D-VA). The Senate bill had four cosponsors; Sen. Dean Heller (R-NV), Sen. Ron Wyden (D-OR), Sen. John Boozman (R-AR), and Sen. Amy Klobuchar (D-MN).

Also on November 15, a companion bill was introduced in the House of Representatives as H.R.4395 sponsored by Rep. Bruce Westerman (R-AR4) and Rep. Seth Moulton (D-MA6).
What are the differences in the Geospatial Data Act included with the FAA Reauthorization from the ones introduced on November 15, 2017?

The Geospatial Data Act of 2018 can be found in Subtitle F Geospatial Data, Sections 751-759 of H.R. 302 FAA Reauthorization Act of 2018 (pages 228-242 in the PDF). While there are various minor edits to the language found in the November 15, 2017 bills (S.2128 & H.R. 4395) below are the more substantial changes:

- Section 751 adds subsection (b) FINDINGS on the need for open and publicly accessible data and using the private sector.
- Section 752 DEFINITIONS excludes from “covered agency” the Department of Defense and all intelligence services but includes NASA and GSA.
- Section 753 FEDERAL GEOGRAPHIC DATA COMMITTEE returns the committee to the Department of the Interior with the Secretary as chair instead of the Office of Management and Budget which was in the November 15, 2017 bills.
- Section 754 NATIONAL GEOSPATIAL ADVISORY COMMITTEE removes subsection (f)(4) GIFTS.
- Section 759 COVERED AGENCIES RESPONSIBILITIES
  - Subsection (a) GENERAL removes paragraph (10) “support emergency response activities requiring geospatial data in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.)”
  - Subsection (B) REPORTING FROM (2) BUDGET SUBMISSION removes the requirement to budget geospatial data as a capital asset.
- Section 759A LIMITATIONS ON THE USE OF FEDERAL FUNDS adds exceptions for current geospatial data sets that do not comply with standards, adds the ability to grant a waiver to those geospatial data sets that haven’t yet met standards, and requires agencies to exercise their best efforts to comply during the 5 year transition period.
- New Section 759B SAVINGS PROVISION “Nothing in this subtitle shall repeal, amend, or supersede any existing law unless specifically provided in this subtitle.”
- New Section 759C PRIVATE SECTOR “The Committee 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.”

About URISA

URISA is an multi-disciplinary geospatial organization that provides professional education and training, a vibrant and connected community, advocacy for geospatial challenges and issues, and essential resources. URISA fosters excellence in GIS and engages geospatial professionals throughout their careers. For more information, visit [www.urisa.org](http://www.urisa.org).