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DEPARTMENT OF VETERANS AFFAIRS

VA Continues Moving toward Full Compliance with Geospatial Data Covered Agency Responsibilities

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Executive Summary

The VA Office of Inspector General (OIG) conducted this audit to determine whether VA complied with the law governing geospatial data and to follow up on recommendations from its previous report.[1] The VA OIG is required to submit an audit report to Congress at least once every two years on the collection, production, acquisition, maintenance, distribution, use, and preservation of geospatial data.[2] Connected to a location on Earth, geospatial data are identified by that location, as well as its natural features, constructed features, and boundaries. Geospatial data allow objects, events, and other real-world phenomena to be mapped to specific geographical areas identified by latitude and longitude coordinates. Location information and characteristics or attributes of other business data sets over a given period are combined to create geospatial data.

VA's administrations rely on geospatial data when supporting budgets, performing strategic planning, and making policy decisions to provide health care, benefits, and burial services to veterans. For example, the Veterans Health Administration (VHA) calculates drive time and distance between enrollees' residences and their closest VHA healthcare facilities using geospatial information. The Veterans Benefits Administration (VBA) determines who may qualify for compensation benefits under the Blue Water Navy Vietnam Veterans Act of 2019 by using a ship-locator tool that incorporates digitized geospatial data from naval deck logs.[3] The National Cemetery Administration (NCA) uses geospatial data to strengthen and improve its ability to permanently account for remains, mark gravesites, track gravesite usage, and digitally map gravesites.

Consistent with the November 30, 2023, letter from the Council of the Inspectors General on Integrity and Efficiency (CIGIE) to Congress, this audit focuses on VA's progress toward compliance with covered agency responsibilities to provide the best value to the covered agencies, Congress, and the public. More information on this audit's scope and methodology can be found in appendix A, and a copy of CIGIE's letter to Congress detailing the scope limitation is in appendix B.

Summary figure 1 illustrates VA's compliance status with the 13 requirements within the scope of this audit.

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[1] 43 U.S.C. §§ 2801–2811; VA OIG, *VA Is Moving toward Full Compliance with Geospatial Data Covered Agency Responsibilities*, Report No. 22-00563-224, September 21, 2022.

[2] 43 U.S.C. § 2808(c).

[3] A veteran who served in the offshore waters of the Republic of Vietnam between January 9, 1962, and May 7, 1975, and was not more than 12 nautical miles seaward of the line commencing on the southwestern demarcation line of the waters of Vietnam and Cambodia, is considered to have served in "blue water" and been exposed to tactical herbicides. Blue Water Navy Vietnam Veterans Act of 2019, Pub. L. No. 116-23, § 2, 133 Stat. 966, codified at 38 U.S.C. § 1116A.

Covered Agency Responsibilities	VA Results
1. Prepare, maintain, publish, 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 National Spatial Data Infrastructure.	N/A
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.	✓

✓ Compliant ✗ Not Compliant

Summary figure 1*. VA's compliance with covered agency responsibilities.*
Source: 43 U.S.C. § 2808(a).

What the Audit Found

The OIG found VA met 10 of the 12 applicable covered agency requirements of the law; requirement 10 was not applicable.[4] VA shared geospatial data, used geospatial data standards, coordinated with other federal and nonfederal entities, and made geospatial information more useful to the public. VA also searched required sources before expending funds to acquire geospatial data, ensured those receiving federal funds for geospatial data collection provided high-quality data, and designated representatives to coordinate with other lead covered agencies.

In its previous audit report, the OIG did not make recommendations for improvement because of VA's significant progress toward compliance with the law governing geospatial data. However, within that audit, the OIG found VA was not compliant with three covered agency requirements:

- VA was not compliant with requirements 1 and 3 because all necessary actions had not been completed.
- VA was not compliant with requirement 9 because it had not met the additional criteria recommended by CIGIE to protect personal privacy and maintain confidentiality.[5] The OIG found VHA has a geographic information system (GIS) that stores the residential addresses of approximately 9.5 million enrollees and includes VA and non-VA healthcare delivery sites, counties, congressional districts, Native American tribal lands, and aggregated VHA enrollee and veteran populations. However, VHA did not document and fully consider the confidentiality, integrity, and availability of data to obtain an authorization to operate before the system was hosted on VA's network.[6] The plan to decommission the existing system and migrate to the VA Enterprise Cloud solution was anticipated to be completed in fiscal year 2022.

Since the previous report, VA continues to move toward compliance. During this audit, the OIG determined VA was not compliant with two of the 12 requirements (an improvement from the three noted previously). Regarding requirement 5, the OIG found VA has not fully allocated resources to fulfill geospatial data responsibilities because key positions remain unfilled. For requirement 9, the OIG found the security categorization was set to "low" for VHA's GIS that

[4] 43 U.S.C. § 2808(a). According to VA officials, VA does not collect, hold, manage, or consume declassified geospatial data, and the OIG did not find evidence to the contrary, thus making requirement 10 not applicable.

[5] CIGIE, *CIGIE Geospatial Data Act Working Group*, Audit Guide Fiscal Year 2022, September 2021.

[6] "Authorization to operate" permits the use of a business product and explicitly accepts the risk to the agency. National Institute of Standards and Technology, *Risk Management Framework for Information Systems and Organizations: A System Life Cycle Approach for Security and Privacy*, NIST Special Publication 800-37, rev. 2, December 2018.

contains personally identifiable information.[7] Additionally, the OIG determined security incidents were mishandled.

What the OIG Recommended

Although VA was found to be noncompliant with requirements 5 and 9, the OIG only made recommendations regarding requirement 9 because VA is working toward satisfying requirement 5. The OIG recommended that the assistant secretary for information and technology and chief information officer reevaluate the risk determination for the VHA GIS and determine if the system should be set to a security categorization level of "moderate" based on the personally identifiable information and other sensitive data maintained in the system. The OIG also recommended the assistant secretary ensure the Data Breach Response Service director instructs staff associated with the incident response process that each security and privacy incident that occurs must be captured on a separate Privacy Security Events Tracking System ticket, confirms document investigation details are accurate, and reassesses whether the security incidents were a breach.

VA Comments and OIG Response

The assistant secretary for information and technology and chief information officer concurred with recommendations 1 and 2 and submitted responsive action plans for both recommendations. The full text of the VA management comments is presented in appendix C.

In response to recommendation 1, the VA Office of Information and Technology is recategorizing the VHA GIS boundary from "low" to "moderate" and changing the overall categorization of the GIS to "moderate" after updating the VHA GIS security impact analysis to include personal health information and personally identifiable information.

In response to recommendation 2, the Data Breach Response Service director will provide written communication to reiterate roles and responsibilities in accordance with VA policy on the management of breaches involving sensitive personal information to all parties responsible for VA's incident response process.[8] The director will also instruct information system security officers to clarify to VA system owners that any suspected incidents should be entered as individual Privacy and Security Event Tracking System events. Further, VA's Data Breach Core Team reevaluated the incidents referenced in this report and concluded the events were not a data

[7] The VHA GIS connects, receives, and shares personally identifiable information, such as residence, with the Corporate Data Warehouse. The security incident in September 2023 included the mailing street address, city, state, zip code, latitude, and longitude of veteran enrollees, as well as social security numbers, disability codes, full names, and dates of birth.

[8] VA Handbook 6500.2.

breach because the risk factors associated with the disclosure of sensitive personal information were low.

LARRY M. REINKEMEYER
Assistant Inspector General
for Audits and Evaluations

Contents

Abbreviations

CIGIE	Council of the Inspectors General on Integrity and Efficiency
ESRI	Environmental Systems Research Institute
FGDC	Federal Geographic Data Committee
GAO	Government Accountability Office
GIS	geographic information system
GSSC	Geospatial Systems Support Center
NCA	National Cemetery Administration
OIG	Office of Inspector General
OIT	Office of Information and Technology
VBA	Veterans Benefits Administration
VHA	Veterans Health Administration

Introduction

Geospatial data are tied to a location on Earth and are identified by that location, as well as its natural or constructed features and boundaries. Through geospatial data, objects, events, and other real-world phenomena can be mapped to a specific area identified by latitude and longitude coordinates. Geospatial data combine location information with characteristics or attributes of other business data sets over a given period. Geospatial data can, for example, represent where a car is parked and track its location when it starts moving.

The law governing geospatial data requires the inspector general of each covered agency to submit an audit report to Congress at least once every two years on the collection, production, acquisition, maintenance, distribution, use, and preservation of geospatial data.[9] According to the Council of the Inspectors General on Integrity and Efficiency (CIGIE), focusing the fiscal year 2024 audits on the agencies' progress toward compliance with covered agency responsibilities would offer the most value to the covered agencies, Congress, and the public.[10] The VA Office of Inspector General (OIG) conducted this audit to determine whether VA complied with the law governing geospatial data and to follow up on recommendations from its September 2022 report.[11] See appendix A for details about this audit's scope and methodology. A copy of CIGIE's letter to Congress detailing the scope limitations is in appendix B.

Use of Geospatial Data

Geospatial data are made up of either vector or raster data. Vector data have specific coordinates that are represented by points, lines, or polygon features.[12] Common examples of vector data are the maps and driving directions viewed in applications such as Google Maps. Raster data represent data through a digital image, such as a scanned map or photograph, and include aerial and satellite imagery. The satellite view in Google Maps is an example of raster data. According to the Government Accountability Office (GAO), geographic information systems (GIS) are "systems of computer software, hardware, and data used to capture, store, manipulate, analyze, and graphically present a potentially wide array of geospatial data."[13] A GIS uses data presented

[9] 43 U.S.C. § 2808(c).

[10] Council of the Inspectors General on Integrity and Efficiency's Letter to Congress, November 30, 2023.

[11] 43 U.S.C. § 2808(a); VA OIG, *VA Is Moving toward Full Compliance with Geospatial Data Covered Agency Responsibilities*, Report No. 22-00563-224, September 21, 2022.

[12] Polygon features "bound an area at a given scale, such as a country on a world map or a district on a city map." "Polygon feature" (web page), ESRI Webhelp, accessed September 20, 2023, http://webhelp.esri.com/arcgisserver/9.3/java/geodatabases/definition_frame.htm.

[13] Government Accountability Office (GAO), *Progress Needed on Identifying Expenditures, Building and Utilizing a Data Infrastructure, and Reducing Duplicative Efforts*, GAO-15-193, February 2015.

in maps to allow for spatial analysis. The data within these information systems are communicated through applications ("apps"). Figure 1 summarizes the benefits of a GIS.

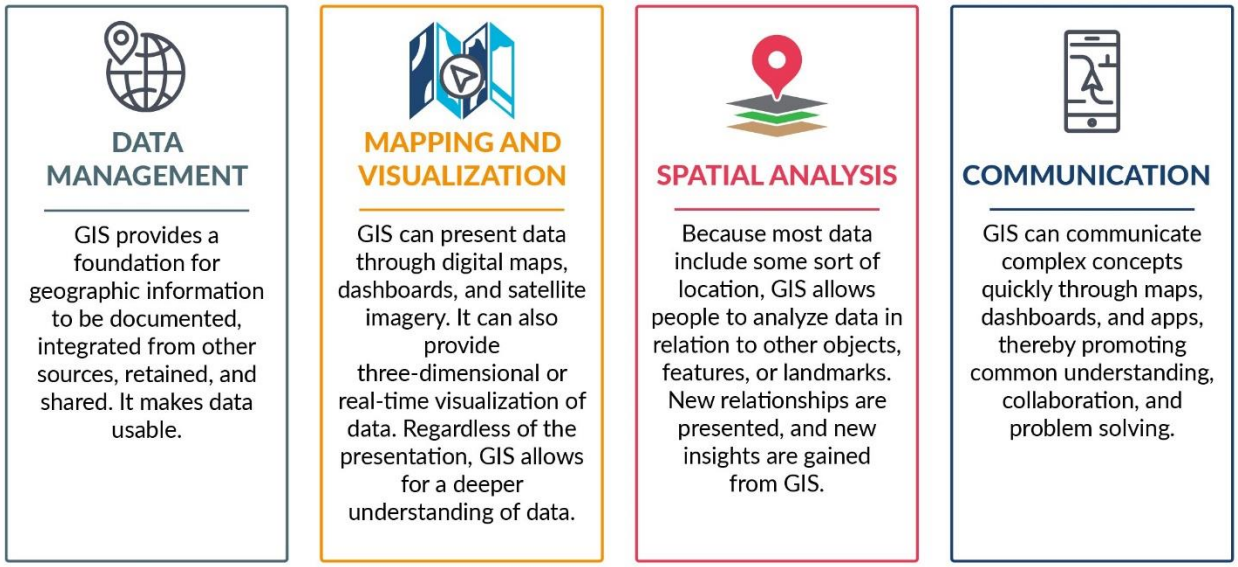

Figure 1. *Infographic explaining the benefits of a GIS.*
Source: OIG-created infographic adapted from esri.com "What is GIS" content.

The primary function of a GIS is to link multiple sets of geospatial data and display the combined information as maps with different layers. The data collected allow information to be shared in various ways and help viewers of the maps discover problems that are occurring or could occur, understand trends and make predictions, monitor existing conditions, and manage and respond to questions.

VA's administrations use geospatial data to support budget, strategic planning, and policy decisions to provide health care, benefits, and burial services to veterans. For example, one way the Veterans Health Administration (VHA) uses geospatial information is to calculate drive time and distance between enrollees' residences and their closest VHA healthcare facilities. The Veterans Benefits Administration (VBA) uses geospatial information to improve the claims process for veterans. For instance, VBA determines who may qualify for compensation benefits under the Blue Water Navy Vietnam Veterans Act of 2019 by using a ship-locator tool that incorporates digitized geospatial data from naval deck logs.[14] According to the Cemetery Development and Improvement Services GIS program manager for the National Cemetery Administration (NCA), NCA relies on geospatial data to administer 190 national cemeteries, maintain 4.5 million graves, and manage more than 23,000 acres. Geospatial data strengthen and improve NCA's ability to permanently account for remains, mark gravesites, track gravesite usage, and digitally map gravesites. To further illustrate how VA uses geospatial data, the

[14] Blue Water Navy Vietnam Veterans Act of 2019, Pub. L. No. 116-23, § 2, 133 Stat. 966, 966, codified at 38 U.S.C. § 1116A.

following section highlights two specific instances in which NCA used VA's GIS to respond to inquiries.

NCA's GIS Program

NCA honors eligible veterans, active-duty service members, and eligible family members with final resting places in national shrines and with lasting tributes that commemorate their service and sacrifice.[15] According to NCA's Cemetery Development and Improvement Services GIS program manager, before 2015, NCA employees and cemetery visitors used burial maps to locate graves. These maps consisted of computer-aided drafting and design maps and some historical maps that could not connect to other systems. In 2015, NCA initiated its GIS program to recreate these maps in a geodatabase that can be augmented with other information to increase usability. According to a GIS program manager for NCA, as of December 2023, its geodatabase included 3.7 million gravesite markers and 4.8 million gravesites across 187 national burial locations, which include national cemeteries, soldier lots, and memorial sites. This geodatabase allows NCA to maintain location and historical information related to burials, as well as evidence of burial site conditions over time. According to NCA's Cemetery Development and Improvement Services GIS program manager, access to geospatial data creates trust between the cemetery and the veterans and family members it serves. The geospatial data provides confirmation for those with loved ones interred at NCA locations that NCA is fulfilling its mission, as demonstrated in the following examples.

Clarifying and Confirming a Gravesite Location

In September 2023, an individual was attempting to visit a family member's gravesite at a national cemetery but could not locate the gravesite. Gravesite location confusion is a common occurrence for visitors of national cemeteries due to ongoing burials within a section, vegetation changes over time, and gravesite additions to burial sections. The cemetery director contacted NCA's GIS team, requesting global positioning system data. Geospatial data confirmed both the veteran and the spouse were interred in the same grave. The global positioning system locations and photographic evidence, collected by the cemetery at the time of interment, reassured the family member their loved one's gravesite had not changed since their last visit. Figure 2 shows the data NCA relied on in this case, which is a GIS map with global positioning system interment locations (one layer of geospatial data) over the gravesite burial section (a second layer of geospatial data).

[15] "About NCA" (web page), VA, accessed June 21, 2024, https://www.cem.va.gov/about/index.asp.

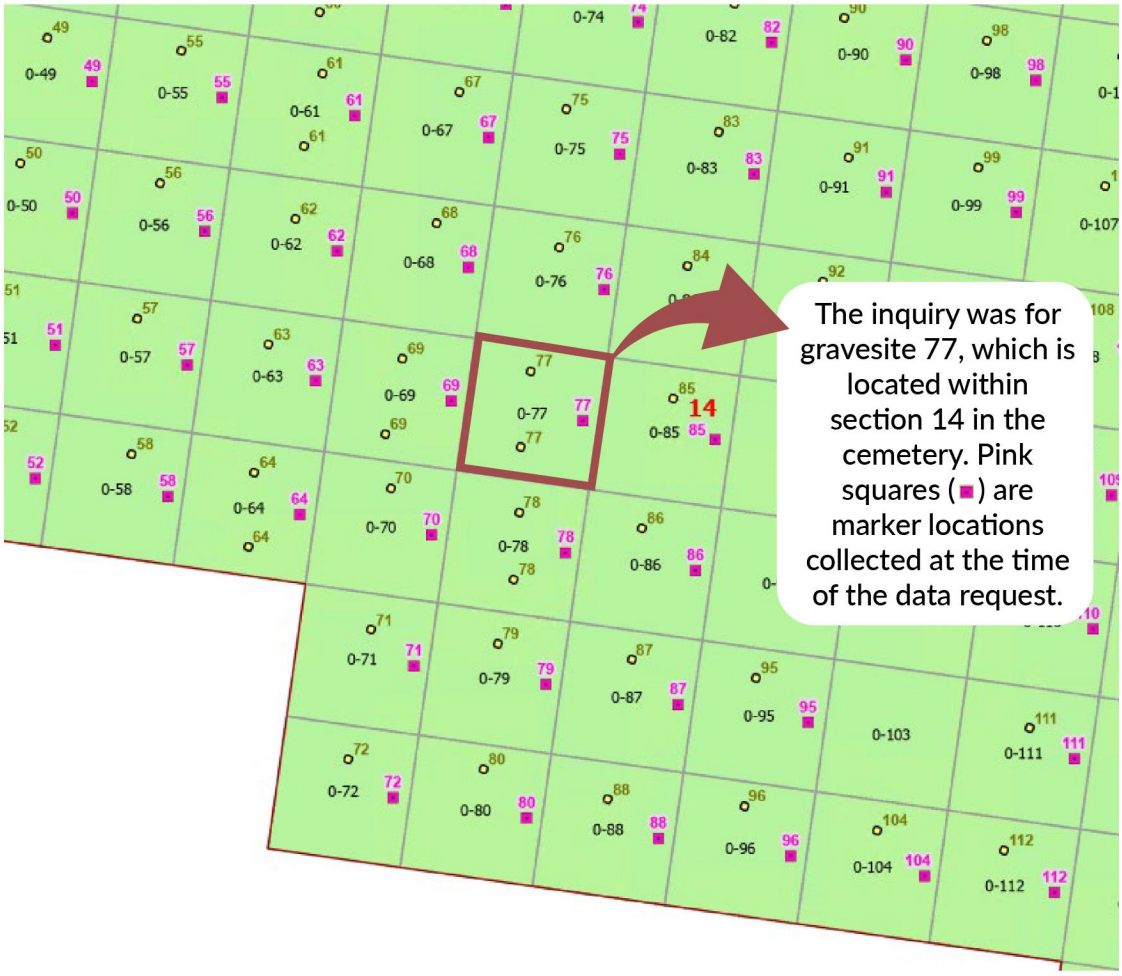

Figure 2. *GIS map showing global positioning system interment locations (yellow dots) overlaying the gravesite burial section.*
Source: NCA Cemetery Development & Improvement Services.

Confirming Niche Contents

In September 2023, an employee at a national cemetery noticed a niche cover that appeared to have been tampered with.[16] Cemetery leaders determined they needed to confirm whether the existing contents matched those on the initial day of interment. The cemetery foreman contacted NCA's GIS team, requesting the global positioning system data collected at the time of interment. The occupants of the niche were a veteran and spouse, both interred. The photographs collected as part of the global positioning system collection requirement showed two white

[16] A niche is "[a]n aboveground space constructed specifically for the placement of cremated human remains." 32 C.F.R. § 553.1. Niche markers are used for inurnment of cremated remains. The markers must be inscribed with the deceased's name, branch of service, and years of birth and death. "Burial Benefits for Veterans and their Families" (web page), NCA, accessed July 2, 2024, https://www.va.gov/SURVIVORS/docs/NCAQuickGuideADA.pdf.

marble urns located within the niche. When the cemetery staff removed the niche cover to confirm the contents, an additional urn was present. After interment, an unauthorized individual removed the niche cover to add the third urn. NCA's geodatabase allowed employees to confirm the legitimate contents of the niche and take action regarding the proper handling of the additional urn. Figure 3 shows an example of niche contents.

Figure 3. *Photograph of niches.*
Source: NCA Cemetery Development & Improvement Services.
Note: Photograph shows undisturbed marble niche covers on left. Open niches (on the right) display what cemetery officials would see when removing covers.

Law Governing Geospatial Data

The law governing geospatial data fosters efficient management of geospatial data, technologies, and infrastructure by enabling better coordination among federal, state, local, and tribal governments; the private sector; nonprofit organizations; and institutions of higher education. The law also reduces duplicative efforts and facilitates the efficient procurement of geospatial

expertise, technology, services, and data.[17] In addition, it formalizes governance processes related to geospatial data, establishes agencies to provide policy and guidance to empower the use of geospatial data and technology, and facilitates broad cooperation between the public and private sectors.

The law also reflects the growing recognition of the essential roles of geospatial data and technology and highlights the need to support their continuing development as critical investments for the nation. Further, it codifies the committees, processes, and tools used to develop, drive, and manage the National Spatial Data Infrastructure and recognizes responsibilities beyond the federal government for its development.[18]

VA is a covered agency under the law governing geospatial data.[19] The law requires the OIG to review VA's compliance with

- the standards for geospatial data, including metadata for geospatial data, established under 43 U.S.C. § 2806;
- the covered agency responsibilities under 43 U.S.C. § 2808; and
- the limitation on use of federal funds under 43 U.S.C. § 2809.[20]

As previously mentioned, in accordance with the limitations mentioned by CIGIE in its November 30, 2023, letter to Congress, this audit focuses only on compliance with covered agency responsibilities. For example, each covered agency is required to prepare, maintain, publish, and implement a strategy for advancing geographic information and related geospatial data and activities that support its mission and the Federal Geographic Data Committee (FGDC)

[17] "Geospatial Data Act of 2018" (web page), accessed March 16, 2023, https://www.fgdc.gov/gda/gda-fact-sheet-may-2019.pdf; 43 U.S.C. § 2801(13) (the National Spatial Data Infrastructure "promote[s] geospatial data sharing through the Federal Government, State, tribal, and local governments, and the private sector (including nonprofit organizations and institutions of higher education) . . . ."). The Geospatial Data Act is codified in Chapter 46 of Title 43 of the United States Code. 43 U.S.C. §§ 2801–2811.

[18] The National Spatial Data Infrastructure is the technology, policies, standards, human resources, and related activities necessary to acquire, process, store, distribute, use maintain, and preserve spatial data. Office of Management and Budget Circular A-16 Revised, *Coordination of Geographic Information and Related Spatial Data Activities*, August 19, 2002.

[19] A covered agency is "an Executive department … that collects, produces, acquires, maintains, distributes, uses, or preserves geospatial data on paper or in electronic form to fulfill the mission of the Executive department, either directly or through a relationship with another organization."

[20] Metadata is "[i]nformation that describes the content, quality, condition, origin, and other characteristics of data or other pieces of information. Metadata for spatial data may describe and document its subject matter; how, when, where, and by whom the data [were] collected; availability and distribution information; its projection, scale, resolution, and accuracy; and its reliability with regard to some standard." "Metadata" (web page), ESRI Webhelp, accessed September 20, 2023, http://webhelp.esri.com/arcgisserver/9.3/java/geodatabases/definition_frame.htm. See figure 4 for the 13 covered agency responsibilities. "[A] covered agency may not use Federal funds for the collection, production, acquisition, maintenance, or dissemination of geospatial data that does not comply with the applicable standards established under [43 U.S.C. §] 2806, as determined by the Committee." 43 U.S.C. § 2809(b).

strategic plan for the National Spatial Data Infrastructure. Furthermore, each covered agency will ensure geospatial information products, records, and activities are included on approved National Archives and Records Administration record schedules. Each covered agency is also required to submit to the FGDC an annual report regarding its achievements in preparing and implementing the strategy described in section 2808(a).

FGDC's Role

The FGDC aids GIS use and advises federal and other spatial data users on their National Spatial Data Infrastructure implementation responsibilities. Lead covered federal agencies are required to be members of the FGDC and have the lead responsibility to coordinate and help develop and implement geospatial data standards, including data content standards.[21] Although VA is not a lead covered federal agency, it designated representatives to coordinate with the committee. The FGDC was responsible for developing a National Spatial Data Infrastructure strategic plan, which describes the actions the FGDC community and partners will take to develop and maintain the nation's critical geospatial infrastructure and to implement geospatial data requirements. In November 2020, the FGDC approved the National Spatial Data Infrastructure strategic plan for 2021 through 2024.[22] In addition, the FGDC implemented the National Spatial Data Infrastructure clearinghouse, referred to as the "GeoPlatform," and advises federal and other spatial data users on their GeoPlatform responsibilities.[23] The GeoPlatform provides users a single web interface to search and access metadata and data themes.[24]

Program Office Responsibility

The Office of Enterprise Integration's mission is to coordinate and communicate with VA to inform decision-making and policies that support veterans. According to the Office of Enterprise Integration, it uses evidence, policy, and governance to create an integrated VA where strategy and resources are aligned to improve outcomes for veterans, their family members, caregivers, and survivors. The Office of Enterprise Integration is made up of four offices, including the Office of Data Governance and Analytics. This office informs VA-wide decision-making by leading data management, data analysis, and business intelligence capabilities. It collects, analyzes, and disseminates veteran and VA program statistics. The office also supports policy

[21] FGDC, *FGDC Summary of the Covered Agency and Lead Covered Agency Annual Reports for FY 2022—Fulfilling Requirements of the Geospatial Data Act of 2018*, July 2023.

[22] FGDC, *National Spatial Data Infrastructure Strategic Plan 2021–2024*, November 2020.

[23] A clearinghouse is a network of data producers, managers, and users linked electronically, such as over the internet. Office of Management and Budget Circular A-16 Revised. The GeoPlatform is "an electronic service that provides access to geospatial data and metadata for geospatial data to the general public." 43 U.S.C. § 2807.

[24] Data themes are electronic records and coordinates for a topic or subject, such as elevation, vegetation, or hydrography. Office of Management and Budget Circular A-16 Revised.

development and resource allocation decisions through predictive analysis and data-driven forecasting.[25] In short, these offices set and enforce standards related to geospatial data.

Under the Office of Data Governance and Analytics, the Data Governance Council oversees VA's data standards and is the final authority on all VA directives, policies, and standards concerning the creation, collection, and dissemination of authoritative data. The Data Governance Council is cochaired by VA's chief data officer and the principal deputy assistant secretary for information and technology. The Office of Enterprise Integration, in coordination with the Office of Information and Technology (OIT), published a directive that establishes VA policy and defines roles and responsibilities for data governance and management throughout the department.[26] The directive supports VA's data strategy and roadmap implementation.

[25] "Enterprise Integration" (web page), VA, accessed September 21, 2023, https://department.va.gov/administrations-and-offices/enterprise-integration/.

[26] VA Directive 0900, *VA Enterprise Data Management (VADM)*, December 8, 2020.

Results and Recommendations

Finding: VA Needs to Take Additional Steps to Comply with Geospatial Data Covered Agency Responsibilities

Although the OIG found VA improved compliance since its 2022 audit, VA needs to continue to take additional steps to comply with geospatial data covered agency responsibilities.

In the OIG's previous report, VA was not compliant with requirements 1, 3, and 9 of section 2808(a). Since that report, the OIG found VA in compliance with requirements 1 and 3. The OIG found VA published the spatial data strategy in September 2022. Further, VA updated its enterprise data strategy roadmap twice since the initial draft was completed in April 2022. The roadmap updates provide details about specific actions to achieve the goals outlined in the data strategy. VA has taken steps toward compliance with requirement 9 by completing the planned decommissioning of the existing VHA GIS and migration to the VA Enterprise Cloud. However, the OIG found the GIS categorizations were set to a low risk level for the confidentiality, integrity, and availability security objectives, which resulted in fewer controls being applied, putting veterans' personally identifiable information at risk of being compromised.[27] Further, the OIG determined VA mishandled security incidents. Therefore, VA remains noncompliant with requirement 9, and the OIG is making two related recommendations.

Regarding requirement 5, the OIG noted in its 2022 audit that VA had the governance structure in place to ensure it provided adequate and timely geospatial support services. However, for this report, the OIG identified key leadership positions remained vacant. As such, the OIG found VA no longer compliant with requirement 5. The OIG is not making a recommendation because VA is working toward staffing these vacancies.

Figure 4 shows VA's compliance with the 12 applicable requirements as of July 2022 and July 2024.

[27] Security categories are based on the potential organizational impact if certain events occur that jeopardize necessary information and systems. The security categorization for information type is based on the security objectives—confidentiality, integrity, and availability—within the system. The potential impact of each security objective could have a low (limited), moderate (serious), or high (severe or catastrophic) adverse effect on organizational operations, assets, or individuals. Federal Information Processing Standards Publication 199, *Standards for Security Categorization of Federal Information and Information Systems*, February 2004; NIST Special Publication 800-60, *Guide for Mapping Types of Information and Information Systems for Security Categories*, August 2008.

Covered Agency Responsibilities	VA 2022 Results	VA 2024 Results
1. Prepare, maintain, publish, 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 National Spatial Data Infrastructure.	N/A	N/A
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.	✓	✓

✓ Compliant ✗ Not Compliant

Figure 4. *VA's compliance with covered agency responsibilities.*
Source: 43 U.S.C. § 2808(a).

What the OIG Did

To assess VA's compliance with geospatial data agency requirements, the audit team examined federal laws, regulations, and publications. Consistent with CIGIE's November 30, 2023, letter to Congress, the audit team focused on VA's compliance with the requirements of 43 U.S.C. § 2808(a). The team interviewed officials and personnel within VA's Office of Enterprise Integration, VHA, NCA, VBA, and OIT's enterprise geospatial team, Data Analytics Product Line, and Enterprise Records Service. In addition, the audit team reviewed Environmental Systems Research Institute (ESRI) contracts, memoranda of understanding, and memoranda of agreement. For more information on the audit scope and methodology, see appendix A.

VA Met 10 of the 12 Applicable Covered Agency Responsibilities

The OIG found VA met 10 of the 12 applicable covered agency requirements of the law; requirement 10 was not applicable.[28]

VA Is Compliant with Preparing and Implementing a Strategy for Advancing Geospatial Data Activities (Requirement 1)

Requirement 1 is to prepare, maintain, publish, and implement a strategy for advancing geographic information and related geospatial data and activities in support of the strategic plan for the National Spatial Data Infrastructure. During the previous audit of VA's compliance with covered agency responsibilities for geospatial data, the OIG found that VA was not compliant because it had not fully addressed the National Spatial Data Infrastructure strategic plan for 2021–2024, which included four goals to advance the use of geospatial data and technology. At the time of that report, VA had published a directive and enterprise data strategy. However, its spatial data strategy and enterprise data strategy roadmap were in the concurrence process.

For this audit, the OIG found VA in compliance with requirement 1. The OIG found VA published the spatial data strategy in September 2022 and updated its enterprise data strategy roadmap twice since the initial draft was completed in April 2022, which provides details about specific actions to achieve the goals outlined in the data strategy.[29] The updates show continued steps VA is taking toward completing the roadmap implementation based on its data strategy and

[28] 43 U.S.C. § 2808(a). According to VA officials, VA does not collect, hold, manage, or consume declassified geospatial data, and the OIG did not find evidence to the contrary, thus making requirement 10 not applicable.

[29] VA, *VA Spatial Data Strategy in Accordance with VA Enterprise Data Strategy*, September 2022; VA Office of Enterprise Integration, *VA Data Strategy Roadmap Updates Major Accomplishments and Roadblocks*, Presentation Deck, March 3, 2023; VA, *Data Strategy Milestone Update to the Implementation Roadmap*, Continued Steps Toward Implementing the VA Data Strategy, January 2024.

enterprise data management directive, which outline the policies, roles, and responsibilities that ensure data management and analytic capabilities align across VA.

VA Is Compliant with Collecting, Maintaining, Disseminating, and Preserving Geospatial Data (Requirement 2)

Requirement 2 is to collect, maintain, disseminate, and preserve geospatial data such that resulting data, information, or products can be shared. During the previous audit, the OIG found VA met this requirement based on its end-to-end process, procedures, and ongoing efforts regarding the sharing of geospatial data. Specifically, the Office of Enterprise Integration published a directive that established the structure for VA's enterprise data management policy.[30] This policy indicated that VA's data are a strategic asset and all data it creates, collects, receives, acquires, processes, derives, disseminates, stores, and disposes of are managed consistently across their life cycles.

The OIG also previously found VA was piloting an enterprise data catalog, which became operational in October 2022, after the September 2022 audit was published. The data catalog connects VA data to facilitate the exchange of metadata with the US Department of Defense's enterprise data catalog. According to a former Office of Data Governance and Analytics deputy executive director, the catalog will allow data analysts to easily discover, understand, access, and use agency data, including geospatial data. Further, VA had several memoranda of understanding with the US Geological Survey, US Census Bureau, and US Department of Health and Human Services' Indian Health Service for sharing resources such as veterans' data, geospatial data, and information technology.

For this audit, the OIG found VA continues to be compliant with this requirement. Although data shared openly with the public and on a limited basis with federal partners is not always provided in an open format, VA has established policies and procedures for the dissemination and use of geospatial content. Further, some programs and data sets have maintenance processes in place. The OIG acknowledges VA's efforts to adopt the spatial data standards established in its enterprise data management policy and streamline data sharing internally and externally. This includes establishing policies and procedures for the dissemination and use of geospatial content.

Additionally, the OIG found VA established governance for VHA's GIS, which includes geospatial content publication standards, policies, and related procedures concerning the appropriate dissemination and use of geospatial content made available to various web and server environments. VA established several accreditation documents detailing standards and policies that mandate processes to ensure effective data management throughout the VHA GIS enterprise to improve accountability and reduce adverse effects of poor data quality. Accreditation documents, such as authority to operate, privacy impact assessment, and privacy

[30] VA Directive 0900.

threshold analysis align enterprise data assets to support data-driven decision-making processes at various levels of the organization.[31]

VA is Compliant with Promoting Geospatial Data Integration (Requirement 3)

Requirement 3 requires VA to promote the integration of geospatial data from all sources. In the prior report, the OIG determined that VA was not compliant but was making progress on integration. However, during this audit, the OIG found VA compliant. VA has published the spatial data strategy and updated its enterprise data strategy roadmap twice since the initial draft was completed in April 2022, as discussed in requirement 1. Further, VA established mandatory agency-wide data management policies and responsibilities.

VA has also promoted integration by working collaboratively across the department and entered into enterprise license agreements. For example, VHA's Geospatial Systems Support Center (GSSC) has an enterprise license agreement with the ESRI to provide GIS products, such as software, data, training, and services, to VHA program offices. However, Data Governance and Analytics, NCA, and other VA offices also have individual user licenses with ESRI. VA has already identified that having one ESRI agreement could eliminate the duplication of efforts by varying VA offices and result in cost savings. VHA is overseeing this transition to one license, but an estimated completion date has not been determined. GSSC has drafted an ESRI enterprise license agreement to facilitate integration of geospatial data and activities, but the agreement has yet to be approved. The OIG encourages VA to complete its planned actions to consolidate the individual user licenses with ESRI.

VA Is Compliant with Ensuring Geospatial Information Is Included on Approved Record Schedules (Requirement 4)

Requirement 4 is to ensure data information products and other records created in geospatial data and activities are included on agency record schedules that are approved by the National

[31] "Authority to operate" is a formal declaration by a designated approving official or entity that authorizes operation of an information system and explicitly accepts the risk to the agency. NIST Special Publication 800-37 rev. 2, *Risk Management Framework for Information Systems and Organizations*, December 2018. Both the privacy assessment and analysis are used to mitigate the risk of unauthorized access, data loss or misuse, or disclosure of information, and they help ensure that systems or applications that store sensitive information have the right level of security. NIST Special Publication 800-122, *Guide to Protecting the Confidentiality of Personally Identifiable Information (PII)*, April 2010.

Archives and Records Administration.[32] VA records must be covered by either the National Archives and Records Administration General Records Schedule or a National Archives and Records Administration–approved records control schedule.[33] As in the previous audit of VA's compliance with geospatial data covered agency responsibilities, the OIG found VA compliant with this requirement.

In July 2022, the National Archives and Records Administration notified VA that it approved NCA's request for a record schedule for national cemetery boundary geospatial data in electronic format.[34] Prior to the National Archives and Records Administration's approval, NCA did not have an established record schedule for retaining veterans' cemetery boundary geographic information, risking loss or deletion of the information.

The OIG found VA established policies and procedures for identifying, handling, and disposing of records as required by the National Archives and Records Administration.[35] The OIG also found NCA GIS National Cemetery Boundary Information was included on a National Archives and Records Administration–approved records schedule.

VA Is Not Compliant with Allocating Resources to Fulfill Geospatial Data Responsibilities (Requirement 5)

Requirement 5 is to allocate resources to fulfill the responsibilities of effective geospatial data collection, production, and stewardship regarding related activities of the covered agency and, as necessary, to support the activities of the FGDC. The previous report noted VA allocates resources to fulfill geospatial data responsibilities and support the activities of the FGDC. During this audit period, VA has continued to support the activities of the FGDC, as necessary. However, for this report, the OIG determined key leadership positions at Data Governance and Analytics are not filled with permanent staffing. Therefore, the OIG determined VA is not compliant with this requirement.

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[32] The National Archives and Records Administration is the nation's record keeper of all documents and materials created in the course of business conducted by the federal government. "About the National Archives: What is the National Archives and Records Administration?" (web page), National Archives, accessed April 24, 2024, https://www.archives.gov/about. A records schedule provides mandatory instructions regarding how to maintain records and what to do with them when they are no longer needed for current business. "About the National Archives: NARA Records Schedule" (web page), National Archives, accessed July 17, 2024, https://www.archives.gov/about/records-schedule.

[33] VA Directive 6300, *Records and Information Management*, September 21, 2018.

[34] National Archives and Records Administration, *Request for Records Disposition Authority Approval*, July 12, 2022.

[35] "[T]he term 'records' … includes all recorded information, regardless of form or characteristics, made or received by a Federal agency under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the United States Government or because of the informational value of data in them." 44 U.S.C. § 3301.

The OIG noted, at the VA level, there is not a funded position for a dedicated geospatial information officer. According to a program analyst for the Office of Enterprise Integration Data Governance and Analytics Management, VA currently remains short of its identified geospatial staffing requirements, particularly for full-time equivalents within VHA and GSSC. These requirements have been documented and prioritized as part of a five-year plan to secure the necessary resources. Despite these staffing shortages, GSSC and VHA have increased access to geospatial resources among VHA programs and offices, developed new applications for planners that have allowed VHA to eliminate two other contracts for software and services, and enhanced published services across VHA.

According to GSSC, they receive information technology and non-information technology funding for geospatial software and support, cloud hosting geospatial infrastructure, contractor support for the cloud environment, and full-time staffing to support geospatial systems/analysis. The director indicated VHA GIS is now a cloud setup, which provides ArcGIS Pro Desktop, server access, and remote connections. The director also stated that they have ArcGIS Online software as a service, which is limited and has data hosted within the ESRI server. The OIG confirmed the VHA GIS is hosted on the VA Enterprise Cloud, which replaced the on-premises GIS. Additionally, the ESRI Enterprise Agreement, a VA allocated resource, includes training opportunities for VHA employees and contractors, and the team that supports the Enterprise Agreement maintains learning plans with course recommendations based on end-user objectives.

Despite the funding allocations listed above, VA has not fully allocated resources to fulfill geospatial data responsibilities because key positions remain unfilled. As a result, VA does not have the governance structure in place to ensure it can provide adequate and timely geospatial support services. Specifically, production of applications, data analytics, and stewardship of geospatial data are limited and take more time. However, according to the director of GSSC, once they receive funding for the vacant positions, production will double. The OIG encourages VA to complete its planned actions to select permanent staffing to meet this requirement, including adding the geospatial information officer. Because VA is working toward staffing these vacancies, the OIG made no recommendation regarding requirement 5.

VA Is Compliant with Geospatial Data Standards (Requirement 6)

Requirement 6 is to 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.[36] In the previous

[36] The GeoPlatform should be available through the internet and include metadata for all geospatial data collected by covered agencies. 43 U.S.C. § 2807(b).

audit, the OIG found VA used geospatial data and metadata standards endorsed by the FGDC.[37] While VA does not yet share data via the GeoPlatform, it is working toward meeting the first goal of its spatial data strategy by implementing geospatial data stewardship across the department that institutionalizes high-quality spatial coding processes and authoritative spatial data standards. This stewardship would provide management, reporting, and general oversight of VA's geospatial data.

During this audit, the OIG found VA is compliant with this requirement. VA appointed geospatial data stewards in September 2023 who will be responsible for making the data available on the GeoPlatform. As noted in requirement 5, VA is also planning to appoint a geospatial information officer. While VA continues to use FGDC-endorsed geospatial and metadata standards, it is not making metadata available through the GeoPlatform because access to data should be a coordinated effort across VA to avoid duplication and nonauthoritative copies of data. This coordination is a task that will ideally be championed by a VA GIS data steward and a geospatial information officer.

The OIG also found that GSSC and the Office of Rural Health-Geospatial Outcomes Division are finalizing a metadata standard document that follows International Organization for Standardization standards and will be shared with other VA GIS offices for concurrence and adoption. According to the Office of Data Governance and Analytics service director, VA does not have enterprise-wide geospatial data and metadata standards. GSSC and the Office of Data Governance and Analytics follow the standards and metadata guide provided by the International Organization for Standardization, which describe the workflows for editing metadata in ArcGIS Pro. All GSSC data sets are shared with other VA offices and published as feature layers or services that are made available to external agencies, including geospatial and metadata that follow FGDC standards.

VA's enterprise geospatial team recommends the use of FGDC's metadata standards and uses the FGDC Content Standard for Digital Geospatial Metadata format. According to the Enterprise Geospatial Team Metadata Standards, metadata should be created using the ArcGIS Pro metadata tools. NCA uses a standardized schema that is updated regularly and is consistent with FGDC requirements, which define how to report the positional accuracy for all point geospatial data collected, produced, or disseminated by the federal government. Performance Analysis and Integrity uses data standards; however, the data standards are not geospatial or metadata standards. The VBA Loan Guaranty Program conducted limited geospatial activities, which have been discontinued. The OIG confirmed that the Office of Emergency Management uses the

[37] Metadata is "[i]nformation that describes the content, quality, condition, origin, and other characteristics of data or other pieces of information. Metadata for spatial data may describe and document its subject matter; how, when, where, and by whom the data were collected; availability and distribution information; its projection, scale, resolution, and accuracy; and its reliability with regard to some standard." "Metadata" (web page), ESRI Webhelp, accessed September 20, 2023, http://webhelp.esri.com/arcgisserver/9.3/java/geodatabases/definition_frame.htm.

enterprise geospatial team's data and the FGDC Content Standard for Digital Geospatial Metadata format. The OIG also confirmed the VA Construction and Facilities Management uses GSSC's geospatial data, International Organization for Standardization standards and metadata guides, and FGDC-endorsed standards.

Overall, because VA has some data sets that consist of well-maintained FGDC-endorsed geospatial data standards or current International Organization for Standardization compliant standards for geospatial metadata, the OIG determined VA is compliant.

VA Is Compliant in Coordinating with Federal, State, and Local Stakeholders (Requirement 7)

Requirement 7 is 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 on existing nonfederal geospatial data to the extent possible. During the previous audit, the OIG identified multiple areas where VA is partnering with other stakeholders, including the following:

- VHA has an interagency agreement with the US Department of Energy that includes adding geospatial data to predictive models to improve clinical interventions and care for suicidal patients and overdose prevention.
- NCA collaborates with the US Geological Survey to develop and maintain critical cemetery boundary data for use in its National Map.
- VBA obtained deck log records from the National Archives and Records Administration to support faster and more accurate processing of veterans' benefits claims related to presumption of exposure to tactical herbicides.

During this audit, the OIG determined VA is compliant with requirement 7. The OIG identified additional areas beyond those in the previous report where VA established memoranda of agreements and understandings with internal offices and external parties, including the following partnerships:

- The VHA National Center on Homelessness Among Veterans has an understanding agreement with New York University and Columbia University to establish the basic terms and conditions to develop a public-facing, interactive map and database that will demonstrate communities at risk based on key economic indicators.
- NCA has an agreement with the Field Programs and Cemetery Operations and Data Analytics for NCA Field Program Enterprise GIS Services that includes continuing to provide NCA with, as well as maintaining, an enterprise GIS architecture and administrative support on an annual basis at a baseline cost.

- VBA Loan Guaranty Analytics has an agreement with Corporate Data Warehouse Data and Analytics regarding the development, management, operations, and security of a system interconnection between the two groups.

The OIG also found NCA does not share geospatial data externally through web services but has the capability to do so using software as a service. In 2022, NCA began utilizing software as a service to aid in the daily collection of burial activities, which allows it to easily consume and share data using web services.[38] Further, software as a service allows NCA to use base maps and some feature services published publicly.

VA Is Compliant with Making Federal Geospatial Information More Useful to the Public, Enhancing Operations, Supporting Decision-Making, and Enhancing Reporting to the Public and to Congress (Requirement 8)

Requirement 8 is to use geospatial information to make federal geospatial information and services more useful to the public, enhance operations, support decision-making, and enhance reporting to the public and to Congress. In the previous audit, the OIG noted the Office of Data Governance and Analytics produced the veteran population projection model so that VA's administrations could use veteran population data and geographic projects to support decision-making and operations.[39] The previous audit also reported other offices, such as GSSC, develop geospatial products that allow planners to optimize the location of veterans' facilities to an area that is closer to the greatest number of veterans.

During this audit, the OIG found VA is compliant with this requirement. The audit team found VA's offices within VHA, VBA, and NCA continue to use and provide work products that align with this requirement. For example, according to an enterprise geospatial team lead, OIT is responsible for providing boundaries and disseminating NCA data. The lead also stated the enterprise geospatial team developed a web application for NCA and the Oak Ridge National Laboratory. Further, the lead indicated the enterprise geospatial team builds applications to support groups like the Office of the Chief of Staff and Secretary to track the travel patterns of the senior leaders. Additionally, the lead reiterated that office work is internal, not public-facing, but that some of the work the enterprise geospatial team conducts will end up in reports. For example, the lead indicated the enterprise geospatial team was provided latitude and longitude

[38] For software as a service, a consumer uses the provider's applications that are accessible from various client devices through an interface such as a web browser (such as a web-based e-mail). The consumer does not manage or control the underlying infrastructure or the individual application capabilities. GAO, *Federal Guidance Needed to Address Control Issues with Implementing Cloud Computing*, GAO-10-513, May 2010.

[39] These products are published externally at https://www.va.gov/vetdata and https://data.va.gov.

data and was able to reverse geocode the data to establish what country or body of water the deployment was in to determine eligibility under the PACT Act.[40]

According to a VHA supervisory geographer, GSSC publishes some data publicly and shares data with Department of Health and Human Services' Indian Health Service and Department of Defense. Similar to the example above, the deputy chief strategy officer for VHA stated geospatial information played a big role in PACT Act analysis. The deputy also indicated GSSC can project 20-year population and enrollment data to look at forecasted migration patterns of where veterans will live. Further, the deputy stated that GSSC provides updates to Congress with projections based off their analysis of the impact of the PACT Act on the population of eligible veterans.

According to the director of environmental programs, VA's Construction Facilities Management uses GIS information to identify the best locations for new clinics based on where veterans are, what services are available in the area, and what potential land would be required for services. The director also explained that if NCA needs new land for additional cemetery space, for example, the office can use GIS and an overlay of environmental information found online from a program called the NEPAssist to evaluate properties.[41] Additionally, the director stated that for any federal action, like developing a property, an environmental assessment is required. Further, the director explained that their office can use data from repositories, such as the NEPAssist, and share the deliverable in a public-facing document for 45 days during the comment period. The director added this allows the public to see how staff and contractors of VA are using their data to develop the products used to answer congressional questions.

VA Is Not Compliant with Providing Safeguards to Protect Personal Privacy and Maintain Confidentiality (Requirement 9)

Requirement 9 requires VA to protect personal privacy and maintain confidentiality in accordance with federal policy and law. During the previous audit, the OIG found VA was not compliant with this requirement because the planned decommissioning of the existing GIS and migration to the VA Enterprise Cloud were not yet completed. For this audit, the OIG confirmed that the migration was completed; however, during migration, the VHA GIS was set to a low level for confidentiality, and the OIG determined that this classification puts the data at risk. Additionally, the OIG determined that VA mishandled security incidents. Therefore, the OIG found VA was not compliant with requirement 9 and has made recommendations accordingly.

[40] Sergeant First Class Heath Robinson Honoring our Promise to Address Comprehensive Toxics (PACT) Act of 2022, Pub. L. No. 117-168, 136 Stat. 1759.

[41] NEPAssist is a tool/web-based application that facilitates the environmental review process and project planning. "NEPAssist" (web page), US Environmental Protection Agency, accessed May 1, 2024, https://www.epa.gov/nepa/nepassist.

The Privacy Act of 1974 provides safeguards against the misuse of personally identifiable information, and the Health Insurance Portability and Accountability Act of 1996 requires administrative, technical, and physical safeguards to ensure the security, integrity, and prevent unauthorized disclosure of protected health information that is maintained in systems of records by federal agencies. Additionally, according to the National Institute of Standards and Technology, personally identifiable information should be protected through a combination of measures, including operational safeguards, privacy-specific safeguards, and security controls.

VHA Miscategorized the Transition of Its GIS to the VA Enterprise Cloud

During the previous audit, VHA was in the process of transitioning from the existing GIS to a VA Enterprise Cloud.[42] The VHA GSSC director stated their cyber security analyst advised them to create a plan of action and milestones to address the planned decommissioning of the existing GIS once the cloud migration was completed.[43] In the previous audit, VHA's GIS enterprise administrator explained the planned decommissioning of the existing GIS and migration to the VA Enterprise Cloud solution would be completed. Although VA was not yet compliant at the time of the previous report, it was taking actions to meet this requirement. Therefore, the OIG did not make a recommendation in the previous report.

During this audit, the OIG found the VHA GIS categorizations were set to a low risk level for the confidentiality, integrity, and availability security objectives. National Institute of Standards and Technology guidance states security categories are based on the potential organizational impact if certain events occur that jeopardize necessary information and systems.[44] The security categorization for information type is based on the security objectives—confidentiality, integrity, and availability—within the system. The potential impact of each security objective could have a low (limited), moderate (serious), or high (severe or catastrophic) adverse effect on organizational operations, assets, or individuals. According to the privacy impact assessment and privacy threshold analysis, the VHA GIS is a privacy sensitive system that collects, maintains, and processes personally identifiable information on veterans and dependents. The impact assessment also stated that the final VHA GIS products only provide aggregated geospatial information in which specific veteran addresses are never revealed, which is why the security categorization of the system was classified as low.

[42] The VA Enterprise Cloud has been authorized at the high-impact level.

[43] A plan of action and milestones is a document that identifies tasks needing to be accomplished and details resources required to accomplish the elements of the plan, any milestones in meeting the tasks, and scheduled completion dates for the milestones.

[44] Federal Information Processing Standards Publication 199; NIST Special Publication 800-60.

The OIG determined VA should reevaluate these security categorizations because personally identifiable information is also contained in the data.[45] The VHA GIS privacy impact assessment further indicated all systems containing sensitive personal information are categorized at a minimum level of "moderate" under Federal Information Processing Standards Publication 199.[46] According to VA Directive 6508, personally identifiable information is a subcategory of VA sensitive data.[47] Under the VHA GIS Privacy Threshold Analysis, the term *personally identifiable information* can be interchanged with *sensitive personal information*.[48] The GIS authority to operate was granted for low, despite this guidance. The lower security setting reduces the system's security and access controls and potentially jeopardizes the confidentiality, integrity, and availability of about 10 million records containing veterans' personally identifiable information.

VA OIT Mishandled Security Incidents

In September 2023, a privacy incident occurred when a VHA GSSC researcher uploaded mailing addresses, zip codes, and geographic coordinates of veterans with severe hearing loss to ESRI's ArcGIS Online, a cloud-based mapping and analysis solution.[49] OIT's Privacy Security Events Tracking System ticket, used to describe privacy event details, clarified that the uploaded information also included social security numbers, disability codes, addresses, zip codes, full names, and dates of birth. ArcGIS Online is a non-VA managed information system that is hosted outside VA's security boundary and network. According to OIT, the information was not accessible or viewable to the public and was limited to identified residents, the VA system owner, and VHA GIS system and network administrators. However, veterans' information could have been accessed by unauthorized users because the information was outside VA control, and the ArcGIS Online was on a platform that had the lowest level of security reserved for systems that do not store any personally identifiable information. A similar security incident occurred in July 2023 but was not discovered until the September incident was investigated.

The VHA GIS enterprise administrator informed the OIG of the September 2023 incident. She explained that the breach arose because researchers did not understand that privacy information

[45] The VHA GIS connects, receives, and shares personally identifiable information, such as residence, with the Corporate Data Warehouse. The security incident in September 2023 included the mailing street address, city, state, zip code, latitude, and longitude of veteran enrollees, as well as social security numbers, disability codes, full names, and date of birth.

[46] Federal Information Processing Standards Publication 199.

[47] VA Directive 6508, *Implementation of Privacy Threshold Analysis and Privacy Impact Assessment*, October 15, 2014.

[48] VHA GIS, *Privacy Threshold Analysis*, October 1, 2022.

[49] The handbook defines an incident as an "occurrence that (1) actually or imminently jeopardizes, without lawful authority, the integrity, confidentiality, or availability of information or an information system; or (2) constitutes a violation or imminent threat of violation of law, security policies, security procedures, or acceptable use policies." VA Handbook 6500.2, *Management of Breaches Involving Sensitive Personal Information*, June 30, 2023.

was present in the data uploaded into the ArcGIS Online system. The GSSC director stated researchers used the online system in this instance because it was easier to access than the Veteran's Informatics Computing Infrastructure.[50] Despite being managed by ESRI, they indicated no personally identifiable information and protected health information appeared to have been accessed by their product team staff. Further, an OIT cloud systems engineer removed the data immediately upon notification. In addition, the VHA GIS administrator explained that no one can publish data publicly because the data need to go through administrators before being released to the public, and users can only publish data to their own user group.

The OIG found VHA's GIS Rules of Behavior and User Agreement, updated January 29, 2024, defines personally identifiable information and protected health information. It also defines aggregated data sets and explains that unaggregated data should not be published or shared outside of a user group within VA or outside of VA. The VHA ArcGIS Online Rules of Behavior and User Agreement, updated December 12, 2023, states that personally identifiable information and protected health information are not allowed within ArcGIS Online because it is hosted within an ESRI-administered cloud infrastructure located outside of VA's information technology infrastructure. According to an OIT cloud systems engineer, the researcher should have used the Veteran's Informatics and Computing Infrastructure hosted inside the VA environment. The enterprise administrator noted that, moving forward, researchers will only be allowed to access data through the Veteran's Informatics and Computing Infrastructure.

According to an OIT cloud systems engineer, this privacy incident occurred because of improper policy and ineffective controls for researchers. The OIG agreed that VHA GSSC did not have adequate policies and procedures in place for handling sensitive personal data at the organization level, the program or component level, and the system level. The OIG determined that neither the VHA GIS User Agreement, dated September 1, 2022, nor the Rules of Behavior prohibited the uploading of personally identifiable information or protected health information to ArcGIS Online. However, because ArcGIS Online is not managed and protected by VA, this information should have been prohibited. Researchers' workarounds and a lack of explicit guidance contributed to this incident. As a result, the VHA GIS User Agreement and the Rules of Behavior have been updated to explicitly prohibit the uploading of personally identifiable information or protected health information. Further, according to the VHA's GIS enterprise administrator, she is now required to retain a signed copy of the VHA GIS Rules of Behavior and

[50] Veteran's Informatics Computing Infrastructure is an analytical platform providing secure access to VA data and software in a high-performance computing environment. The platform is designated for researchers using sensitive information. The researchers using this platform are prevented by a firewall from extracting, downloading, changing, or deleting any data. Data cannot be transferred in or out but can be used for research. This platform has access to all data in the Corporate Data Warehouse, which hosts a substantial amount of current as well as historical clinical data.

User Agreement.[51] Further, the OIG found that the VHA ArcGIS Online login page now includes a banner and pop-up alerting users that no protected health information and personally identifiable information may be uploaded.

When the September 2023 incident was identified, another similar security concern that occurred in July 2023 with a different individual was found. According to VA policy, the director of Data Breach Response Service shall ensure the Privacy Security Events Tracking System captures a record of each incident to include status, detailed log of actions, and all relevant information for each incident.[52] Although VA policy requires the director of the Data Breach Response Service to ensure the tracking system captures each security incident, OIT indicated that members of the field or system incident response process should enter events into the tracking system based on information reported to them. The July 2023 incident was not documented on a separate Privacy Security Events Tracking System ticket, as required by VA policy. Instead, it was documented on the September incident's ticket.

The July 2023 incident should have been documented independently. Furthermore, the information systems security officer did not provide accurate information in the Privacy Security Events Tracking System or in documented discussions with the Data Breach Response Service. For example, the tracking system states the information or equipment was out of VA control for zero to 24 hours. According to a senior cyber security analyst, the information on the September incident was out of VA control for at least 93 days. However, in July 2024, OIT informed the audit team that the information documented on the September incident ticket could not have been uploaded to ArcGIS Online before August 23, 2023. This statement is inconsistent with what the senior cyber security analyst said. Additionally, the Privacy Security Events Tracking System did not include a timeline that accounted for the information or equipment that was out of VA control for the July 2023 incident. As a result, the length of time the information for both incidents was outside of VA controls was understated.

The OIG also found that critical incident event details were either inaccurate or not included in the Privacy Security Events Tracking System ticket. The ticket indicated that the information on ArcGIS Online was only viewable on the VA Enterprise Cloud and, therefore, considered low risk. However, the GSSC director and VHA GIS enterprise administrator indicated that ArcGIS Online is not a VA-owned, VA-operated, and VA-administered information system; VA does not have governance over ArcGIS Online. The OIG also found ArcGIS Online is not included in

[51] The VHA GIS User Agreement and the Rules of Behavior have since been combined into one document called the "VHA GIS Rules of Behavior and User Agreement."

[52] The Data Breach Response Service determines whether a reported incident is a breach involving sensitive personal information and whether VA should notify or offer credit-monitoring services to the record subjects. VA Handbook 6500.2.

eMASS or the VA Systems Inventory.[53] ArcGIS Online is owned and operated by ESRI and was authorized by the Federal Risk Authorization Management Program to have an impact level of low. This security categorization is the lowest security level reserved for systems that do not store any personally identifiable information beyond what is generally required for login, such as a username, password, or email address.

According to VA policy, the information systems' security and privacy officers should—as part of their incident preparation, prevention, detection, analysis, documentation, notification, containment strategy, restoration, evidence gathering and management, and lessons learned roles—update mitigation/corrective action fields in a Privacy Security Events Tracking System ticket. The ticket should include a description of what was done to investigate the event, mitigate harm to individuals, and prevent such events from recurring.[54] Because the information in the Privacy Security Events Tracking System did not accurately relay all of the facts or make clear the amount of time veterans' sensitive personal information was out of VA control, it is possible that this security incident may have been a breach, meaning about 15,000 to 17,000 veterans did not receive credit-monitoring services to which they may have been entitled.[55]

The data breach service determined that the July and September 2023 incidents were not a breach based on the information being out of VA's control for 24 hours and on the VA Enterprise Cloud. However, the OIG determined, based on inaccurate, conflicting, and incomplete information officially communicated to the data breach service through the Privacy Security Events Tracking System ticket and several correspondences, these incidents may have been incorrectly evaluated.

VA Assessed Its Obligation to Participate in Determining Whether Declassified Data Can Become Part of the National Spatial Data Infrastructure (Requirement 10)

Requirement 10 is to participate in determining, when applicable, whether declassified data can contribute to and become a part of the National Spatial Data Infrastructure. The OIG found this audit's results are consistent with the previous audit's conclusion that VA does not collect, hold,

[53] eMASS is a web-based application that automates the process of setting security controls for VA systems throughout the risk management framework. VA Systems Inventory is the authoritative data source for VA information technology systems and defines the objectives and principles behind its management and utilization.

[54] VA Handbook 6500.2.

[55] 38 U.S.C. §§ 5721-5728 mandate procedures for detecting, immediately reporting, and responding to security incidents; notifying Congress of any significant data breaches involving sensitive personal information; and providing credit monitoring services to those individuals whose sensitive personal information may have been involved. In the event that the Secretary determines, based on the findings of a risk analysis, that a reasonable risk exists for the potential misuse of sensitive personal information involved in a data breach, the Secretary shall provide credit protection services in accordance with VA regulations. 38 U.S.C. § 5724(a)(2); *see also* 38 C.F.R. Part 75, Subpart B; 38 U.S.C. § 5724(b); VA Handbook 6500.2.

manage, or consume declassified geospatial data, and there was no evidence to the contrary. As such, requirement 10 is not applicable.

VA Is Compliant with Searching All Sources to Determine If Existing Data Met Its Needs Before Expending Funds to Acquire Additional Geospatial Data (Requirement 11)

Requirement 11 is to search all sources, including the GeoPlatform, to determine if existing federal, state, local, or private geospatial data meet the needs of the covered agency before expending funds for geospatial data collection. In the previous audit, the OIG found VA was unable to use GeoPlatform data because VA requires a current address to be associated with names, and no data set on the GeoPlatform met VA's requirements. VA obtains high-quality data at no cost from several platforms and demonstrated that it searches all sources to determine if existing data meets its needs before expending funds to acquire geospatial data.

The OIG found this audit's results are consistent with the previous audit, and VA is compliant with this requirement. For example, the OIG found the enterprise geospatial team accesses and utilizes free, vetted data from the US Department of Homeland Security website, which is the government's GIS clearinghouse. The website provides information the GeoPlatform does not offer, such as access to road network data sets and geocoders. The enterprise geospatial team explained they search the GeoPlatform when they are unable to find what they need within the Department of Homeland Security's data. The enterprise geospatial team also indicated it would be beneficial if VA published nonsensitive VA data to the GeoPlatform but stated that no group within VA has submitted data to the platform. However, according to the enterprise geospatial team, the GeoPlatform will continue to be a source for reference data within its group.

The OIG also found Construction and Facilities Management uses external geospatial data and tools to perform environmental, historic, and sustainability reviews that use GIS, such as climate mapping for resilience and adaptation. For example, according to the environmental program director for Construction and Facilities Management, they use ESRI software for mapping of wetlands, along with the Environmental Protection Agency's NEPAssist and greenhouse gas tools and hazardous materials and ground water information from its website.[56] The director also indicated they use the Information for Planning and Consultation tool along with data from the

[56] NEPAssist "is a tool that facilitates the environmental review process and project planning in relation to environmental considerations." "NEPAssist" (web page), US Environmental Protection Agency, accessed May 1, 2024, https://www.epa.gov/nepa/nepassist. The greenhouse gas tools are used for "estimating … emissions or reductions and in preparing related analyses." "GHG Tools and Resources" (web page), NEPA.GOV, National Environmental Policy Act, accessed January 4, 2024, https://ceq.doe.gov/guidance/ghg-tools-and-resources.html.

Federal Emergency Management Agency's national flood hazard layer.[57] As evidenced by these examples, VA has demonstrated that it searches all sources to determine if existing data meet its needs before expending funds to acquire geospatial data.

VA Is Compliant with Ensuring That Those Receiving Federal Funds for Geospatial Data Collection Provided High-Quality Data (Requirement 12)

Requirement 12 is, to the maximum extent practicable, to ensure that a person receiving federal funds for geospatial data collection provides high-quality data. In the previous audit, the OIG found VA compliant with this requirement. VHA provided one contract for the procurement of geospatial data. This contract is still active and covers GIS products, including software, data, services, and support for GIS applications and services for VHA. According to the director of GSSC, the contract provides access to data used for geocoding and generating drive time and distance estimates.

During this audit, the OIG determined VA is compliant with this requirement and found that VA is receiving high-quality data for the federal funds used toward geospatial data collection. The NCA GIS program manager and the VA Construction and Facilities Management director of environmental programs informed the OIG that they used and recently paid for geospatial data. NCA provided examples of the contract's scope of work, identifying specific guidelines and requirements for the collection of geospatial data. The NCA GIS program manager stated they collected much of their geospatial data in-house, but they have also outsourced geospatial data in the past, especially for assistance documenting the first four million graves. For example, NCA had three contracts between 2015 and 2021, and a new contract was just awarded for new Army cemeteries. According to the NCA GIS program manager, the contract requirements are specific, and NCA performs quality checks on the data received.

Additionally, the OIG found other offices, including VA's Office of Emergency Management and Resilience and VBA's Loan Guaranty Program, indicated that the data they use come from free and open, officially vetted sources, such as the Department of Defense, the US Department of Agriculture, the Census Bureau, or VA's internal data warehouse. Further, according to an enterprise geospatial team lead, their office collects data from the Oak Ridge National Laboratory or other internal sources. If the enterprise geospatial team needs additional data, they rely on the Department of Homeland Security website or the government's GIS clearinghouse.

[57] The Information Planning and Consultation tool "is a digital project planning tool that provides information to project proponents to help determine whether a project will have effects on federally listed species or designated critical habitat, as well as other sensitive resources managed by the U.S. Fish and Wildlife Service." "Information for Planning and Consultation" (web page), US Fish & Wildlife Service, accessed May 1, 2024, https://www.fws.gov/service/information-planning-and-consultation.

VA Is Compliant with Appointing a Contact to Coordinate with Lead Covered Agencies (Requirement 13)

Requirement 13 is to appoint a contact to coordinate with the lead covered agencies for the collection, acquisition, maintenance, and dissemination of the National Geospatial Data Asset data themes used by the covered agency. Similar to the previous audit, the OIG found that VA is compliant with requirement 13 for this report.

VA has appointed contacts to coordinate with the lead covered agencies for the collection, acquisition, maintenance, and dissemination of the National Geospatial Data Asset data themes used by VA. Specifically, the acting VA chief data officer and executive director for the Office of Enterprise Integration's Data Governance & Analytics serves as a member of the steering committee for the FGDC. Additionally, a management and program analyst for the Office of Enterprise Integration serves as a member of the FGDC Address Subcommittee and attends steering committee meetings to support the chief data officer. Finally, the Office of Enterprise Integration provided evidence of participation and oversight with the FGDC on National Geospatial Data Asset matters.

Conclusion

During this audit, the OIG found VA met 10 of the 12 applicable covered agency requirements of the law; requirement 10 was not applicable.[58] Overall, the OIG found VA has improved since the previous report.

For this report, the OIG found VA to be noncompliant with requirements 5 and 9. As such, VA needs to take steps to safeguard personally identifiable information and protected health information and reassess the security incidents. Further, VA needs to reassess the security categorization of the VHA GIS. The OIG recognizes the complexity of integrating multiple GIS across the agency and encourages VA to complete its planned actions to ensure compliance.

Recommendations 1–2

The OIG made two recommendations specific to requirement 9 to the assistant secretary for information and technology and chief information officer to conduct the following actions:

1. Reevaluate the risk determination for the Veterans Health Administration Geographic Information System and determine if the system should be set to a security categorization level of "moderate" based on the personally identifiable information and other sensitive data maintained in the system.

[58] 43 U.S.C. § 2808(a).

2. Ensure the Data Breach Response Service director instructs staff associated with the incident response process that each security and privacy incident that occurs must be captured on a separate Privacy Security Events Tracking System ticket, confirms document investigation details are accurate, and reassesses whether the security incidents were a breach.

VA Management Comments

The assistant secretary for information and technology and chief information officer concurred with recommendations 1 and 2 and provided action plans for each of the recommendations. Appendix C provides the full text of the assistant secretary's comments.

In response to recommendation 1, OIT is recategorizing the VHA GIS boundary from "low" to "moderate" and changing the overall categorization of the GIS to "moderate" after updating the VHA GIS security impact analysis to include personal health information and personally identifiable information.

In response to recommendation 2, the Data Breach Response Service director will provide written communication to reiterate roles and responsibilities in accordance with VA policy on the management of breaches involving sensitive personal information to all parties responsible for VA's incident response process.[59] The director will also instruct information system security officers to clarify to VA system owners that any suspected incidents should be entered as individual Privacy and Security Event Tracking System events. Further, VA's Data Breach Core Team reevaluated the incidents referenced in this report and concluded the risk factors associated with the disclosure of sensitive personal information were low, and a data breach did not occur.

OIG Response

The proposed corrective measures in OIT's action plans are responsive to the recommendations, and the OIG will monitor the implementation of the recommendations until all proposed actions are completed.

[59] VA Handbook 6500.2.

Appendix A: Scope and Methodology

Scope

The audit team conducted its work from November 2023 through July 2024. The team evaluated VA's efforts to comply with the requirements of section 2808(a), covered agency responsibilities, consistent with the Council of the Inspectors General on Integrity and Efficiency (CIGIE) letter to Congress dated November 30, 2023.

Methodology

To assess compliance with the law governing geospatial data, the team examined Office of Management and Budget Circulars A-16 Revised, "Coordination of Geographic Information and Related Spatial Data Activities" and A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities." The team also considered Title 5 of the United States Code and the National Institute of Standards and Technology Special Publication 800-53A, rev. 5, "Assessing Security and Privacy Controls in Information Systems and Organizations." Furthermore, the audit team reviewed National Institute of Standards and Technology Special Publication 800-122, "Guide to Protecting the Confidentiality of Personally Identifiable Information (PII)." Finally, the team also reviewed VA's Functional Organization Manual Version 7.0.

The team conducted interviews with the acting deputy executive director of the Office of Data Governance and Analytics, the enterprise geospatial team lead, the Veterans Health Administration (VHA) deputy chief strategy officer, the VHA Geospatial Systems Support Center director, and the National Cemetery Administration geographic information system (GIS) program manager. In addition, the team examined Environmental Systems Research Institute (ESRI) contracts. Finally, the team interviewed subject matter experts from the following offices:

- VA Office of Enterprise Integration
- VA Office of Data Governance and Analytics
- VA Construction and Facilities Management
- Office of Information and Technology
- Office of Emergency Management and Resilience
- Enterprise Geospatial Team
- National Data Breach Response Service
- VHA Geospatial Systems Support Center
- VHA Office of Rural Health

- Veterans Benefits Administration (VBA) Office of Performance and Analytics and Integrity
- VBA Loan Guaranty Program
- National Cemetery Administration Cemetery Development and Improvement Service

The audit team reviewed the National Spatial Data Infrastructure 2021–2024 Strategic Plan, VA 2021–2023 Covered Agency Annual Reports and Self-Assessments to the Federal Geographic Data Committee (FGDC), VA Enterprise Data Strategy, agency plans, standard operating procedures, agency directives, guidelines and policies, and other relevant information.

Scope Limitations

CIGIE convened a working group with representatives from the covered agency inspectors general to reach a consensus on an audit approach for the fiscal year 2024 audits. Based on the recommendation of CIGIE's working group, this audit focused on compliance with covered agencies' responsibilities.

Internal Controls

The team assessed the internal controls of VA, significant to the audit objective. This included an assessment of five internal control components to include control environment, risk assessment, control activities, information and communication, and monitoring.[60] In addition, the team reviewed the principles of internal controls as associated with the objective. The team identified the following component and two principles as significant to the objective:[61]

- Component: Control Environment
    - Principle 4: Recruit, Develop, and Retain Competent Individuals
- Component: Control Activities
    - Principle 11: Design entity's Control Activities and Respond to Risks

The team identified an internal control weakness during the audit and proposed recommendations to address the control deficiency.

[60] GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G, September 2014.

[61] Because the audit was limited to the internal control components and underlying principles identified, it may not have disclosed all internal control deficiencies that may have existed at the time of this audit.

Data Reliability

The VA Office of Inspector General (OIG) did not obtain electronic data that required a data reliability assessment.

Government Standards

The OIG conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that the OIG plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on audit objectives. The OIG believes the evidence obtained provides a reasonable basis for the findings and conclusions based on the audit objectives.

Appendix B: Council of the Inspectors General on Integrity and Efficiency's Letter to Congress

November 30, 2023

The Honorable Maria Cantwell
Chairwoman

The Honorable Ted Cruz
Ranking Member

Committee on Commerce, Science,
and Transportation
United States Senate
Washington, D.C.

The Honorable Frank Lucas
Chairman

The Honorable Zoe Lofgren
Ranking Member

Committee on Science, Space,
and Technology
U.S. House of Representatives
Washington, D.C.

Dear Chairpersons and Ranking Members:

The Council of the Inspectors General on Integrity and Efficiency (CIGIE) appreciates your leadership on geospatial data issues. The Geospatial Data Act of 2018[62] (the Act) mandates oversight through Federal Inspectors General (IG) to ensure effective implementation of the related requirements. Specifically, the Act requires biennial IG audits to evaluate the following:

1. Covered Agencies' compliance with geospatial data and metadata standards established under the Act.
2. Covered Agencies' compliance with responsibilities outlined in the Act.
3. Covered Agencies' compliance with the limitation of Federal funding for noncompliant datasets.[63]

We are writing this letter on behalf of CIGIE to inform you about an important timing concern related to the biennial audits conducted by the IG community. The standards required for implementation of the Act by Covered Agencies have not yet been issued by the Federal Geographic Data Committee (FGDC). As of now, there is no projected release date available. Consequently, the full implementation of the Act is delayed, which in turn limits the IG community's ability to conduct a comprehensive biennial audit in Fiscal Year 2024. We cannot assess compliance with two of the three audit requirements (specifically, audit evaluation tasks

[62] Pub. L. No. 115-254, Subtitle F (2018), codified at 43 U.S.C. Ch. 46 Geospatial Data §§ 2801–2811.
[63] 43 U.S.C. § 2808(c).

1 and 3 listed above). To address this challenge, CIGIE has taken proactive measures to establish a consensus within the IG community on an audit approach for the Fiscal Year 2024 audits.

After careful deliberation and similar to our prior audits, the Covered Agency IG representatives have concluded that audits focused on assessing the progress of Covered Agencies toward compliance with the Act, including their adherence to the Act's requirements outlined in section 759(a), 43 U.S.C. § 2808(a), would offer the most value to the covered agencies, Congress, and the Public.

In our view, this approach is appropriate due to the inherent challenges in determining the precise standards that audits should utilize to assess compliance at this time. Moreover, it is important to note that the limitation on the use of Federal funds for noncompliant geospatial data will not apply until 5 years after FGDC's establishment of standards. As such, compliance with the limitation is not yet auditable.

This approach would provide each Covered Agency IG with the flexibility to conduct additional testing as needed, depending on the geospatial footprint of the respective covered agency. The relevant IG would make this determination as they see fit.

Furthermore, among the 16 federal agencies specified under the Act, more than half of them do not accumulate or publish substantial or significant volumes of new geospatial assets on a biennial basis. Consequently, many IG audit teams are contemplating the adoption of weighted or risk-based approaches. Additionally, the CIGIE Legislation Committee has encouraged Congress to repeal the requirement that IGs conduct a biennial audit to allow IGs the flexibility to assess the risks of geospatial data at the agencies they oversee and provide a cost-effective, risk-based review if appropriate.

The OIG removed point of contact information prior to publication.

Sincerely,

(Original signed by)

Mark L. Greenblatt
Chair, Council of the Inspectors General on Integrity and Efficiency
Inspector General
U.S. Department of the Interior

(Original signed by)

Robert P. Storch
Chair, Council of the Inspectors General on Integrity and Efficiency, Technology Committee
Inspector General, U.S. Department of Defense

cc: The Honorable Gary C. Peters, Chairman
The Honorable Rand Paul, Ranking Member
Committee on Homeland Security and Government Affairs

The Honorable James Comer, Chairman
The Honorable Jamie Raskin, Ranking Member
House Committee on Oversight and Accountability

The Honorable Jason Miller, Deputy Director Office of Management and Budget and Executive Chair, Council of the Inspectors General on Integrity and Efficiency
The Honorable Gene Dodaro, Comptroller General GAO

For accessibility, the original format of this appendix has been modified to comply with Section 508 of the Rehabilitation Act of 1973, as amended.

Appendix C: VA Management Comments

Department of Veterans Affairs Memorandum

Date: August 13, 2024

From: Assistant Secretary for Office of Information and Technology and Chief Information Officer (005)

Subj: Veterans Affairs Continues Moving toward Full Compliance with Geospatial Data Covered Agency Responsibilities (VIEWS 12034112)

To: Assistant Inspector General for Audits and Evaluations (52)

1. Thank you for the opportunity to comment on the Office of Inspector General's (OIG) draft report, VA Continues Moving toward Full Compliance with Geospatial Data Covered Agency Responsibilities.
2. The Office of Information and Technology (OIT) submits the attached written comments, along with a target completion date for each of the OIG's recommendations to the Department.

The OIG removed point of contact information prior to publication.

(Original signed by)

Kurt D. DelBene

Attachment

Attachment

Office of Information and Technology

Comments on Office of Inspector General Draft Report,

"VA Continues Moving toward Full Compliance with Geospatial Data Covered Agency Responsibilities" (Project Number 2024-00122-AE-0003)

(VIEWS 12034112)

Recommendation 1: Reevaluate the risk determination for the Veterans Health Administration Geographic Information System and determine if the system should be set to a security categorization level of moderate based on the personally identifiable information and other sensitive data maintained in the system.

Comments: The Department of Veterans Affairs (VA) Office of Information and Technology (OIT) concurs.

OIT is recategorizing the Veterans Health Administration (VHA) Geographic Information System (GIS) boundary from "low" to "moderate". OIT completed a new Privacy Threshold Analysis and Privacy Impact Analysis (PIA) for the VHA GIS and submitted for VA Privacy review on July 31, 2024. OIT is also updating the VHA GIS Security Impact Analysis to include personal health information and personally identifiable information data, which will result in the overall categorization changing to "moderate". Upon review and approval of the PIA, VA process requires submission of the major change form and system categorization to Information Security Risk Management. The VHA GIS recategorization is anticipated to be completed by October 2025, but no later than the system's authorization termination date of November 8, 2025.

Target Completion Date: November 8, 2025.

Recommendation 2: Ensure the Data Breach Response Service Director instructs staff associated with the incident response process that each security and privacy incident that occurs must be captured on a separate Privacy Security Events Tracking System ticket, confirm and accurately document investigation details, and reassess whether the security incidents were a breach.

Comments: Concur.

The Data Breach Response Service (DBRS) Director will dispatch correspondence to all parties responsible for VA's incident response process to reiterate roles and responsibilities in accordance with VA Handbook 6500.2, Management of Breaches Involving Sensitive Personal Information. The correspondence will direct Information System Security Officers to clarify to VA System Owners that any suspected incidents shall be entered as individual Privacy and Security Event Tracking System (PSETS) events, as required by VA Handbook 6500.2. Additionally, DBRS will work with the VA Talent Management System to review the language in the annual VA Privacy and Security Awareness Training and Rules of Behavior to ensure the training accurately addresses requirements for reporting suspected incidents. Finally, DBRS will update its reoccurring monthly training sessions to reinforce the importance of accurately reporting PSETS events for all personnel involved in the incident response process.

VA's Data Breach Core Team (DBCT) reevaluated the incidents referenced in the OIG's report on July 30, 2024. DBCT is comprised of members from DBRS and appropriate VA Staff Offices and Administrations. Other members or designees include the Senior Agency Official for Privacy, Chief Privacy Officer, Chief Information Officer, and Chief Information Security Officer. Periodically, DBCT may also include other VA personnel as appropriate according to specific agency missions, authorities,

circumstances, and identified risks. DBCT reviews major or complex incidents to include incidents with Congressional or media interest and appeals of DBRS decisions. DBCT has the authority to overturn or uphold DBRS decisions.

After reviewing the originally reported event – to include discovery of the second incident and subsequent information as provided by OIG and other parties – DBCT upheld the original DBRS determination that the risk factors associated with the inadvertent disclosure of sensitive personal information were low, and the event was therefore not a data breach.

Target Completion Date: VA completed reassessment of the incident on July 30, 2024. OIT will complete remaining actions by August 31, 2024.

Department of Veterans Affairs

August 2024

For accessibility, the original format of this appendix has been modified to comply with Section 508 of the Rehabilitation Act of 1973, as amended.

OIG Contact and Staff Acknowledgments

Contact	For more information about this report, please contact the Office of Inspector General at (202) 461-4720.
Audit Team	Al Tate, Director Carolyn Burnett Cynthia Christian Nicole Halliday Keila Tugwell-Core
Other Contributors	Allison Bennett Andrew Eichner

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