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Climatic, Hydrological, and Topographic Services

Installation Geospatial Information and Services

By Order of the Secretary of the Army:

RANDY A. GEORGE
General, United States Army
Chief of Staff

Official:

MARK F. AVERILL
Administrative Assistant to the Secretary of the Army

History. This publication is a major revision. The portions affected by this major revision are listed in the summary of change.

Authorities. The authorities are Executive Order 12906, Office of Management and Budget Circular A–16, and DoDI 8130.01 for this regulation. It provides policies, procedures, responsibilities, and guidance for the Installation Geospatial Information and Services program within the Department of the Army.

Applicability. This regulation applies to the Regular Army, the Army National Guard/Army National Guard of the United States, the U.S. Army Reserve, and the U.S. Army Corps of Engineers, unless otherwise stated.

Proponent and exception authority. The proponent of this regulation is the Deputy Chief of Staff, G–9. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the rank of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific requirements.

Army internal control process. This regulation contains internal control provisions in accordance with AR 11–2 and identifies key internal controls that must be evaluated (see app B).

Suggested improvements. Users are invited to send comments or suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Deputy Chief of Staff, G–9 (DAIN–OD), usarmy.pentagon.hqda-dcs-g-9.mbx.publication-management@mail.mil.

Distribution. This regulation is available in electronic media only and is intended for the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

*This regulation supersedes AR 115–13, dated 24 March 2017.

SUMMARY of CHANGE

AR 115–13
Installation Geospatial Information and Services

This major revision, dated 15 July 2024—

- Updates purpose (chap 1).
- Updates responsibilities (chap 2).
- Updates information on sections in Installation Geospatial Information and Services (chap 3).

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Glossary of Terms

Chapter 1
Introduction

1–1. Purpose
This regulation implements policy and procedure for creating, maintaining, managing, and disseminating geospatial information and services in support of the Army installations, energy, and environment (IE&E) domain. This regulation standardizes installation geospatial information collection, creation, management, and distribution, and strengthens the reliability, accountability, and security of that data. The Army Installation Geospatial Information and Services (IGI&S) Program establishes processes for installation geospatial information quality control, reporting, and distribution.

1–2. References, forms, and explanation of abbreviations
See appendix A. The abbreviations used in this electronic publication are defined when you hover over them. Also, all acronyms are listed in the abbreviations, brevity codes, and acronyms database located at https://armypubs.army.mil/abca/.

1–3. Associated publications
This section contains no entries.

1–4. Responsibilities
Responsibilities are listed in chapter 2.

1–5. Records management (recordkeeping) requirements
The records management requirement for all record numbers, associated forms, and reports required by this regulation are addressed in the Records Retention Schedule-Army (RRS–A). Detailed information for all related record numbers, forms, and reports are located in Army Records Information Management System (ARIMS)/RRS–A at https://www.arims.army.mil. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS–A, see DA Pam 25–403 for guidance.

1–6. Army Installation Geospatial Information and Services Program
a. The Army IGI&S Program unifies the creation, maintenance, management, and dissemination of Army installation geospatial data and consolidates Army efforts to improve accountability and credibility.

b. Situational awareness of the installation is critical in supporting the Army installation management mission. Factors such as operations, asset sustainment, transformation initiatives, base realignment and closure, homeland security, and mission support mandate that the Army has access to the best possible contextual information about an installation's sites and their surroundings. Geospatial information such as globally-referenced digital representations of installation features, including road networks, building footprints, as-built drawings, utilities, cultural and natural resources, military training land features, and constraints, and surrounding areas must be available in standardized formats, consolidated in an authoritative data source (ADS), and accessible to interested stakeholders in a common database. This information is used by the Army to support installation management business processes, inform force protection, respond to encroachment issues, meet regulatory requirements, enable optimal use of facilities, manage training and range assets, and enhance installation, energy, and environmental management in order to support mission needs.

c. The Army uses geographic information systems (GISs) and computer aided design (CAD) technology to inform decision making by Headquarters, Department of the Army (HQDA) staff related to re-stationing, asset life cycle management, mapping analysis and support, integration efforts with business systems, and impact analysis of policies. Installation personnel use GIS and CAD for integrated planning, command and control, operations and management, emergency management and operations, real property reconciliation, emergency preparedness planning, analysis and mapping support, communications and briefing support, dig permitting, military training, land navigation training, the daily maintenance of infrastructure, and integration with business (tabular data) systems. All personnel with a common access card can access the HQDA geospatial data repository to view data, answer questions, and solve practical problems.

d. Other stakeholders use geospatial data originating from the Army IE&E domain to assist in reporting on the spatial complexity of their interests. All Army geospatial data is a Department of Defense (DoD) asset. Specific geospatial data created, edited, and maintained by those outside the Army IE&E domain is often fundamental to fulfilling the Army IE&E mission, regardless of ownership or stewardship. Geospatial data created by other HQDA offices may or may not be governed by spatial data standards for facilities, infrastructure, and environment (SDSFIE) or another data standard, but can and should be used to the benefit of the greater Army IE&E domain. The rebuilding or recreation of existing geospatial datasets originating from other DoD offices can introduce inaccuracies and errors if done incorrectly, therefore the use of derived geospatial information is discouraged.

e. The HQDA geospatial data repository conforms to Office of the Secretary of Defense Business Enterprise Architecture standards and integrates other DoD and Army business systems. The integrated approach meets DoD's requirements for a network centric data strategy.

f. The HQDA geospatial data repository is certified by the Army Data Board as the ADS for Army installation geospatial information within the Army IE&E domain.

Chapter 2
Responsibilities

2–1. Chief, National Guard Bureau

The CNGB will—

a. Appoint an Army National Guard (ARNG) IGI&S program lead.

b. Resource an IGI&S program for ARNG.

c. Appoint a representative of the ARNG to the IGI&S functional coordination group (FCG).

d. Lead ARNG execution of IGI&S and provide coordination support to all ARNG installations.

e. Develop training programs and standard operating procedure (SOP) for geospatial data collection and map production.

f. Develop and submit the ARNG IGI&S program objective memorandum (POM) requirements to the appropriate program evaluation group (PEG).

g. Report Installation Status Report (ISR) performance measures quarterly using the ISR–Services (Service 425) data input module.

h. Aggregate and deliver all SDSFIE Army adaptation geospatial data quarterly as directed in the annual Deputy Chief of Staff (DCS), G–9 Geospatial Data Collection, Development, and Management Memoranda for upload to the HQDA geospatial data repository.

i. Procure imagery, GIS support, and other activities according to IGI&S Program strategy.

j. Report ARNG IGI&S information technology (IT)-specific investments in the Army Portfolio Management Solution (APMS) quarterly.

k. Establish, maintain, and manage ARNG IGI&S guidance and program initiatives.

l. Reconcile ARNG GIS and IGI&S programmatic activities with the DCS, G–9 IGI&S program quarterly.

m. Ensure—

(1) There is an IGI&S manager for each state and/or territory.

(2) Army IGI&S policies, standards, and guidance are met in each state and territory.

(3) Protocols are established in each state and territory to manage and protect ARNG geospatial information and ensure that geospatial information is marked with the appropriate controlled unclassified information (CUI) marking or classification designation in accordance with DoD data security and classification policy.

(4) SDSFIE Army adaptation geospatial data is reconciled annually with the real property inventory (RPI).

2–2. Deputy Chief of Staff, G–3/5/7

The DCS, G–3/5/7 will—

a. Appoint a Sustainable Range Program (SRP) GIS program lead.

b. Resource an IGI&S program for SRP using Management Decision Evaluation Package, TATM (the four-letter code for the Integrated Training Area Management Program management decision evaluation package (ITAM MDEP)).

c. Appoint a representative of the SRP to the IGI&S FCG.

d. Through the SRP GIS program lead, ensure each SRP lead executes IGI&S and provide SRP funding to all commanders that execute a SRP.

e. Develop training programs and SOP for geospatial data collection and map production.

f. Report ISR performance measures quarterly using the ISR–Services (Service 903) data input module.

g. Serve as the geospatial data layer proponent lead for military training and range geospatial data layers and will—

(1) Develop and maintain quality assurance plans (QAPs) annually for designated geospatial data layers and participate in the QAP annual review process.

(2) Advise on the development of policies and guidelines associated with designated geospatial data layers.

(3) Determine geospatial data collection priorities.

h. Identify program execution priorities, and program, validate, and defend resources in the planning, programming, budgeting, and execution process in support of the military range and training geospatial data layers.

i. Aggregate and deliver all SDSFIE Army adaptation geospatial data of SRPs quarterly, as directed in the annual DCS, G–9 Geospatial Data Collection, Development, and Management Memoranda, for upload to the HQDA geospatial data repository.

j. Procure imagery, GIS support, and other data.

k. Report SRP IGI&S IT-specific investments in the APMS quarterly.

l. Manage SRP IGI&S Program requirements in accordance with AR 350–19.

m. Reconcile SRP GIS programmatic activities with DCS, G–9 IGI&S Program quarterly.

n. Establish protocols to manage and protect SRP geospatial information and ensure that geospatial information has an appropriate CUI marking or classification designation in accordance with DoD and Army data security and classification policy.

o. Reconcile SRP SDSFIE Army adaptation geospatial data of SRPs annually with the RPI.

2–3. Deputy Chief of Staff, G–9

The DCS, G–9 is responsible for advising on the development, resourcing, implementation, and evaluation of IGI&S policies, programs, and requirements for creation, maintenance, and management of geospatial information and services to support installation management. The DCS, G–9 will—

a. Appoint an IGI&S program manager and resource the IGI&S Program.

b. Serve as the designated approving authority for the HQDA geospatial data repository.

c. Support IGI&S operations requirements including, but not limited to, facilities, planning, operations, and construction.

d. Recommend, execute, and facilitate HQDA geospatial data repository functional and technical requirements.

e. Establish and maintain HQDA geospatial web based capability.

f. Chair the IGI&S FCG.

g. Participate in IGI&S enterprise governance forums.

h. Ensure IGI&S program integration with the Army Geospatial Enterprise (AGE) in coordination with the Army Geospatial Information Officer as designated in AR 525–95, paragraph 1–13.b.

i. Develop a memorandum of agreement, memorandum of understanding, inter-service agreement, interdepartmental agreement, or system interface agreement for exchanging installation geospatial information with other services or Army components.

j. Serve as geospatial data layer proponent lead for operations and environmental geospatial data layers and will—

(1) Develop and maintain QAPs annually for designated geospatial data layers and participate in the QAP annual review process.

(2) Advise on the development of policies and guidelines associated with the designated geospatial data layers.

(3) Determine geospatial data collection priorities.

k. Identify program execution priorities, and program, validate, and defend resources in the planning, programming, budgeting, and execution process in support of the operations and installation services geospatial data layers.

l. Analyze current IGI&S applications and functions, collect, and consolidate functional and technical requirements from stakeholders, and determine possible overlaps, data, and cost-sharing opportunities.

m. Develop and maintain the list of Army Common Installation Picture (CIP) and Army non-Common Installation Picture (non-CIP) geospatial data layers.

n. Establish and review geospatial data quality metrics annually with change requirements being identified, prioritized, reviewed, adopted, and then incorporated into the ISR–Services data collection program.

o. Establish and maintain system requirements specification and SOP documentation for the HQDA geospatial data repository.

p. Integrate other ADS systems as required by stakeholders and data layer proponent organizations.

q. Develop and submit the Army IGI&S POM requirements to appropriate PEG.

r. Procure commercial off-the-shelf geospatial software for implementation with the HQDA geospatial data repository and for utilization by the Army IE&E domain.

s. Develop and maintain the annual Geospatial Data Collection, Development, and Management Memoranda.

t. Distribute Army installation data to DoD and non-governmental agencies.

u. Share IE&E geospatial data subject to CUI marking, classification, Army and DoD policy, and applicable state and Federal laws.

v. Ensure IGI&S Program internal controls are being coordinated, reviewed, and published annually.

w. Establish and maintain a governance process for the management of the HQDA geospatial data repository.

x. Ensure IGI&S data in the HQDA geospatial data repository is available for use by accredited, authorized users within DoD and the Army.

y. Serve as the APMS IGI&S portfolio manager.

z. Provide CIP geospatial data layers to the Office of the Assistant Secretary of Defense annually or as otherwise directed.

aa. Support IGI&S installation services' Environmental Division requirements for data layers related to environmental clean-up, compliance, and conservation concerns.

bb. Support IGI&S installation services' Environmental Division requirements for data layers related to the Defense Environmental Programs Annual Report to Congress and environmental liabilities.

2–4. Chief, Army Reserve

The CAR will—

a. Appoint an U.S. Army Reserve (USAR) IGI&S program lead.

b. Resource an IGI&S program for USAR.

c. Appoint a representative of the USAR to the IGI&S FCG.

d. Lead USAR execution of IGI&S and provide coordination support to all USAR installations.

e. Develop and submit the USAR IGI&S POM requirements to the appropriate PEG.

f. Develop training programs and SOP documentation for geospatial data collection and map production.

g. Report ISR performance measures quarterly using the ISR–Services (Service 425) data input module.

h. Aggregate and deliver all USAR SDSFIE Army adaptation geospatial data quarterly as directed in the annual DCS, G–9 Geospatial Data Collection, Development, and Management Memoranda for upload to the HQDA geospatial data repository.

i. Procure USAR imagery, GIS support, and other activities in accordance with IGI&S Program strategy.

j. Report USAR IGI&S IT-specific investments in the APMS quarterly.

k. Establish, maintain, and manage USAR IGI&S guidance and program initiatives.

l. Reconcile USAR GIS and IGI&S programmatic activities with DCS, G–9 IGI&S Program quarterly.

m. Direct the commanders of USAR readiness divisions and USAR garrisons to—

(1) Appoint an IGI&S manager at each installation.

(2) Ensure installations implement Army IGI&S policy and standards.

(3) Establish protocols to manage and protect USAR geospatial information and ensure CUI markings on and classification of geospatial information complies with DoD data security and classification policy.

(4) Reconcile USAR SDSFIE Army adaptation geospatial data annually with the RPI.

2–5. Chief of Engineers

The COE will—

a. Appoint an U.S. Army Corps of Engineers (USACE) IGI&S program lead.

b. Appoint a representative of the USACE to the IGI&S FCG.

c. Develop and submit the USACE IGI&S POM requirements to the appropriate PEG.

d. Develop training programs and SOPs for USACE Civil Works geospatial data collection and map production.

e. Serve as the proponent for USACE geospatial data.

f. Serve as geospatial data layer proponent lead for applicable USACE geospatial data layers or delegate this duty to an appropriate program manager.

g. As the data layer proponent lead—

(1) Develop and maintain QAPs annually for designated geospatial data layers and participate in the QAP annual review process.

(2) Advise on the development of policies and guidelines associated with the designated geospatial data layers.

(3) Determine geospatial data collection priorities.

h. Identify program execution priorities, and program, validate, and defend resources in the planning, programming, budgeting, and execution process in support of the civil works geospatial data layers.

i. Aggregate and deliver data for all SDSFIE Army adaptation geospatial data layers of USACE proponency quarterly as directed in the annual DCS, G–9 Geospatial Data Collection, Development, and Management Memoranda, for upload to the HQDA geospatial data repository.

j. Procure imagery, GIS support, and other activities in accordance with IGI&S Program strategy.

k. Support remote sensing and imagery requests for installations through USACE's Army Geospatial Center Imagery Office.

l. Serve as a member of the Defense Installation Geospatial Information and Services Governance Group (IGG) in accordance with Department of Defense Instruction (DoDI) 8130.01.

m. Provide technical development, change management, general support, and implementation support for IGI&S standards, as a function supporting the IGG, in accordance with DoDI 8130.01.

n. Reconcile USACE SDSFIE Army adaptation geospatial data of USACE proponency annually with the RPI.

2–6. Commanders of Army commands, Army service component commands, and direct reporting units

Commanders, ACOMs, ASCCs, and DRUs will provide oversight of the IGI&S activities at their respective installations and will—

a. Appoint an IGI&S program lead to represent the ACOM, ASCC, and DRU.

b. Resource an IGI&S program.

c. Lead the execution of IGI&S on the installation and support IGI&S coordination efforts among installations.

d. Implement IGI&S policy.

e. Develop and submit IGI&S POM requirements through the POM process through the appropriate PEG.

f. Develop SOP documentation for geospatial data collection and map production.

g. Report ISR performance measures quarterly using the ISR–Services (Service 425) data input module.

h. Procure imagery and GIS support in accordance with IGI&S Program strategy.

i. Report IGI&S IT-specific investments are reported in the APMS quarterly.

j. Document CIP and Army CIP geospatial data layers by working with respective functional subject matter experts (SMEs), and those that have institutional knowledge of ground conditions, to verify the applicability of the Army CIP for their installation.

k. Ensure all geospatial data layers are comprehensive, spatially accurate, and compliant with QAPs.

l. Share installation geospatial data subject to CUI marking, classification, and applicable state and federal laws.

m. Train IGI&S staff on QAP compliance, data management standards, attribution standards and GIS data security, and/or restriction measures.

n. Aggregate and deliver all SDSFIE Army adaptation geospatial data quarterly, as directed in the annual DCS, G–9 Geospatial Data Collection, Development, and Management Memoranda, for upload to the HQDA geospatial data repository.

o. Direct senior commanders to—

(1) Appoint an IGI&S manager (military, government employee, local national, state employee, or contractor) at each installation.

(2) Ensure senior commanders execute IGI&S policy and standards.

(3) Establish protocols to manage and protect geospatial information and ensure the appropriate CUI classification of geospatial information complies with DoD data security and classification policy.

(4) Ensure SDSFIE Army adaptation data is reconciled annually with the RPI, including complete population of real property unique identifiers (RPUIDs).

(5) Direct installation IGI&S managers to appoint data stewards who—

(a) Validate geospatial data layers for compliance with the respective temporal representation guidance in the QAPs.

(b) Complete quality control of each geospatial data layer and associated metadata.

(c) Submit the data to the functional SME for review of completeness and accuracy prior to review by the manager.

(d) Conduct reviews of QAPs for geospatial data layers.

Chapter 3
Installation Geospatial Information and Services

Section I

General

3–1. Functional coordination group

The IGI&S FCG is an informal working group that provides oversight of IGI&S Program initiatives in support of the Army IE&E domain, in accordance with existing law, statute, and policy. The Chair, IGI&S FCG provides an effective governance working group that sets priorities, coordinates geospatial efforts, and facilitates communication regarding how geospatial data and technologies are used to meet the installation management mission. The Chair, IGI&S FCG will—

a. Ensure representation across IE&E business areas and directly related stakeholder communities and customers.

b. Provide programmatic oversight for the identification, prioritization, execution, and coordination of IGI&S initiatives.

c. Discuss IGI&S applications, tools, and data to include cost-sharing opportunities, for and to each business community.

d. Ensure data layer proponent leads develop and promote quality assurance standards and methods for the creation, use, and sharing of IGI&S data.

e. Discuss data resourcing and implementation strategies with data layer proponent leads.

f. Refine existing Army guidance and create new guidance where existing policy is insufficient or new requirements emerge.

g. Address disputes between data layer proponent leads.

3–2. Funding

a. The DCS, G–9 will use the Army POM programming process to develop and submit resource requirements annually to meet HQDA IGI&S program requirements.

b. Data layer proponents identify IGI&S program execution priorities; program, validate, and defend resources in the planning, programming, budgeting, and execution process; and oversee and allocate program resources to commands and support agencies in support of applicable geospatial data layers.

c. Each IGI&S program lead, where applicable, develops, and submits an IGI&S POM for their respective organization.

3–3. Authoritative data source

In the Army IE&E domain, authoritative data providers are the data stewards at all levels who are responsible for collecting and maintaining information in support of Army installation management. Army IGI&S data must be validated for quality and accuracy by data stewards and functional SMEs. IGI&S managers must ensure that their respective installation geospatial data is compliant with standards set forth in published QAPs.

a. The HQDA geospatial data repository will be certified with the Army Data Board as the Army's ADS for Army installation geospatial information within the Army IE&E domain.

b. The HQDA geospatial data repository will serve as the Army's geospatial data library and as a portal for dissemination of Army IGI&S information.

c. Where applicable, SDSFIE Army adaptation feature type attribution, such as the RPUID, must be properly obtained from its appropriate Accountable Property Systems of Record (APSRs) or ADS.

3–4. Program measures

The purpose of ISR–Services measures are to evaluate the cost and quality of service delivery performance for installation support services provided at each Army installation. These measures assess cost, quantity, and quality of services provided to organizations and individuals associated with Army sites (see AR 210–14).

a. The IGI&S program establishes measures to assess the status of IGI&S data, assets, and management functions at installations, and to evaluate support to installation management business objectives.

b. Installations are required to collect, compile, and report IGI&S measures on a quarterly basis via the ISR–Services (Service 425) data input module. DCS G–9 compiles IGI&S measure information to identify installation IGI&S capability shortfalls and to justify the resourcing of IGI&S investments.

3–5. Information technology investments

IT investments, as defined by AR 25–1, must be reported in APMS. IT investments required to accomplish specific IGI&S functional goals include the following:

a. Computing infrastructure, hardware, software, services, initiatives, and prototypes, regardless of funding source or amount.

b. Contracted IT support including system development and operations and maintenance.

c. If a contractor provides IT support services as part of a larger contract, only the percentage of costs associated with performing IT functions need to be reported in APMS.

Section II

Data Requirements

3–6. Data availability

a. Secretary of the Army provides for the creation, maintenance, storage, and secure sharing of geospatial data. (See DoDI 8130.01.) For the Army IE&E domain, IGI&S commanders or program leads will deliver all Army installation SDSFIE Army adaptation compliant geospatial data quarterly to DCS, G–9 for upload to the HQDA geospatial data repository.

b. IGI&S commanders/program leads will aggregate and deliver all Army installation SDSFIE Army adaptation compliant geospatial data quarterly as directed in the annual Geospatial Data Collection, Development, and Management Memoranda for upload to the HQDA geospatial data repository.

3–7. Data standards

The SDSFIE is the set of DoD standards for installation geospatial data. It is a broad set of standards that cover business mission areas across the Army IE&E domain.

a. The SDSFIE Army adaptation serves as the overall geospatial database standard for the Army IE&E domain.

b. The SDSFIE Army adaptation allows for the creation of subordinate adaptations to meet the requirements of Army IGI&S stakeholder organizations. Subordinate adaptations must comply with Army and DoD adaptation rules.

c. The Army IGI&S program manager will submit the SDSFIE Army adaptation to the Chair, IGG. (See DoDI 8130.01.)

d. Proposed changes to the SDSFIE Army adaptation will be submitted through the appropriate IGI&S commander/program lead for consideration by the IGI&S program manager.

e. The applicable version of the SDSFIE Army adaptation is based on Army mission and IGI&S program requirements.

3–8. Data quality

a. All IGI&S data will be created and maintained to a standard defined by the appropriate data layer proponent and documented in a QAP to ensure the data is consistent, accurate, credible, and useful for installation management and mission support.

b. IGI&S data may be created and maintained to specific requirements defined at the installation or site level as long as all criteria defined in the QAP are met.

c. QAPs identify the appropriate ADS to link geospatial feature types with Army business systems.

d. IGI&S data may be collected outside of the installation's site boundary or the boundary of land held by the installation if required according to mission requirements.

3–9. Data sources and data source selection

a. Acceptable data sources are documented in each geospatial data layer's QAP.

b. Functional SMEs at installations will identify the most appropriate data sources. The organizations holding the most appropriate data source(s) may vary by geospatial data layer, command, and installation.

3–10. Imagery

a. Installation imagery represents ground conditions of the installation and will be refreshed every 5 years at a minimum, unless publicly available imagery sources prove adequate.

b. Installations that have a higher imagery refresh frequency requirement as a result of specific changes to ground conditions may request targeted imagery updates through their IGI&S program lead.

c. Installations may also require light detection and ranging (LiDAR), multi-spectral, or other types of remotely sensed data. These requirements should be coordinated with the respective IGI&S program lead.

3–11. Metadata

a. All Army IGI&S Program metadata requirements and guidance are outlined in the Army IGI&S Program metadata guidance and the Army IGI&S Program QAPs.

b. All quarterly submitted geospatial data must include an up-to-date metadata record with each GIS data layer.

c. All metadata will be compliant with DoD metadata requirements (See DoDI 8130.01).

3–12. System security considerations

System security considerations must incorporate the principle of least functionality and the principle of least privilege in order to control access to systems and its assets (see National Institute of Standards and Technology Special Publication (NIST SP) 800–53).

a. All Army geospatial systems registered or not in the APMS, must comply with Army cybersecurity policy (see AR 25–2) and follow security and privacy controls for Federal information systems (see NIST SP 800–53).

b. All IGI&S stakeholders must be trusted agents of the Army who have agreed to use Army computers, systems, and networks responsibly when they signed the Army IT agreement that gave them access to Army information systems (see AR 25–2).

3–13. Data handling considerations

a. In accordance with DoDI 8130.01, it is DoD policy that all IGI&S data be made visible, accessible, understandable, trusted, and interoperable throughout their lifecycles, to all authorized users.

b. Disclosure and release determinations regarding geospatial information must be in accordance with DoDI 5200.48.

c. Installation geospatial information must include a distribution statement and appropriate CUI marking(see DoDI 5200.48 and DoDI 5230.29).

d. A quarterly snapshot of the HQDA geospatial data repository serves as the official Army record copy used to support Army business needs (see DA Pam 25–403).

Appendix A

References

Section I

Required Publications

This section contains no entries.

Section II

Prescribed Forms

This section contains no entries.

Appendix B

Internal Control Evaluation

B–1. Function
The function covered by this evaluation is the Army IGI&S Program.

B–2. Purpose
The purpose of this evaluation is to assist in evaluating key internal controls outlined below. It is not intended to cover all controls.

B–3. Instruction
Answers must be based on the actual testing of key internal controls (for example, document analysis, direct observation, sampling, simulation). Answers that indicate deficiencies must be explained and corrective action indicated in supporting documentation. These key internal controls must be formally evaluated at least once every 5 years. Certification that this evaluation has been conducted must be accomplished on DA Form 11–2 (Internal Control Evaluation Certification).

B–4. Test questions
Questions for key internal controls are as follows:

a. Have the processes and procedures for receiving IGI&S from other systems been identified under a memorandum of agreement, memorandum of understanding, or inter-Service, interdepartmental, or interagency support agreement?

b. Have the processes and procedures for delivering IGI&S to other systems been identified under a memorandum of agreement, memorandum of understanding, or inter-Service interdepartmental, or interagency support agreement?

c. Is the ISR–S 425 updated quarterly for each quarter?

d. Are the review of QAPs conducted annually with changes being identified, prioritized, reviewed, and incorporated into the QAP program?

e. Is installation geospatial data reported to the DCS, G–9 IGI&S program manager quarterly?

f. Is AR 115–13 reviewed annually and updated at a minimum of every 5 years, as required by AR 25–30?

B–5. Supersession
This evaluation replaces the internal control evaluation previously published in AR 115–13 dated 24 March 2017.

B–6. Comments
Submit comments to the Deputy Chief of Staff, G–9 (DAIN–ODR), 600 Army Pentagon, Washington DC 20310–0600.

Glossary of Terms

Adaptation
A formalized (approved) alteration of the SDSFIE logical data model resulting in another logical data model which is tailored to the particular business requirements of an implementing organization.

Army adaptation
The Army adaptation is the complete set of geospatial feature types based on the latest published Army service-level SDSFIE physical data model.

Army Common Installation Picture
The Army CIP is the distinct minimum set of geospatial features and imagery necessary to provide a foundational map depicting Army installations and sites.

Army non–Common Installation Picture
The Army non-CIP is the set of geospatial feature types not categorized as CIP or Army CIP, in the IGI&S Proponency Matrix on the Army Installation Geospatial Platform, that comprises the rest of the Army adaptation.

Army Portfolio Management Solution
APMS is the Army's single authoritative registry for geospatial IT investments, capabilities, and systems. Geospatial IT investments, for which the Army is a funding source (see AR 25–1).

Authoritative Data Source
A recognized or official data production source with a designated mission statement or source, or product to publish reliable and accurate data for subsequent use by customers. An authoritative data source may be the functional combination of multiple, separate data sources (see DoDI 8320.03).

Common Installation Picture
The distinct, minimum set of geospatial features and imagery necessary to provide a foundational map depicting DoD installations and sites as defined in DoD Instruction 4165.14.

Computer aided design
CAD is a type of computer application that creates digital drawing in two or three dimensions.

Data
A subset of information in an electronic format that allows it to be retrieved or transmitted.

Data layer
A data layer is a group of spatial elements which together represent a real-world entity or administrative entity, such as an installation boundary. A complex data layer is made up of more than one group of spatial elements, for example, a set of line elements with the common theme of roads representing a road network.

Element
Any individual item of the SDSFIE logical data model including feature types, feature geometries, attributes, enumeration or domain values, and associations or relationships.

Feature type
A feature type is another name for a data layer. It is a group of spatial elements which together represent a real-world entity or administrative entity, such as a boundary.

Geographic Information System
A computer system for the input, editing, storage, retrieval, analysis, synthesis, and output of location-based information. GIS may refer to hardware and software, or include data.

Geospatial Data
Information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the Earth. This information may be derived from, among other things, remote sensing, mapping, and surveying technologies; and mapping, charting, geodetic data and related products.

Geospatial information
Information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the Earth, including statistical data and information derived from, among other things,

remote sensing, mapping, and surveying technologies; and mapping, charting, geodetic data and related products.

Geospatial information and services
The collection, information extraction, storage, dissemination, and exploitation of geodetic, geomagnetic, imagery , gravimetric, aeronautical, topographic, hydrographic, littoral, cultural, and toponymic data accurately referenced to a precise location on the Earth's surface.

Installation
A base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the Army, including any leased facility, which is located within any of the States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the Virgin Islands, the Commonwealth of the Northern Mariana Islands, or Guam. This term does not include any facility used primarily for civil works, rivers and harbors projects, or flood control projects. In the case of an activity in a foreign country, an installation is any property under the operational control of the Secretary of the Army, without regard to the duration of operational control. For real property accountability, an installation must consist of one or more real property sites.

Installation Geospatial Information and Services
The subset of geospatial information and services activities that apply to the management of installations and environment to support military readiness in the Regular, Guard, and Reserve Components with regard to facility construction, sustainment, and modernization, including: housing; base closures and reuse, including economic assistance for affected communities; privatization and competitive sourcing; base operations; energy use and conservation; real property management; property accountability and valuation; managing Army compliance with national environmental, natural resource, and historic preservations laws; environmental management systems, natural infrastructure capabilities and sustainment; safety; occupational health; fire protection; pest management; explosive safety; encroachment management; and the operation and sustainment of military test and training ranges.

Quality assurance plans
QAPs are documents stating required specifications for creating and managing geospatial data feature types. QAPs define geospatial and metadata content specifications, validation methodology, acceptable data sources, internal handling controls and how GIS data is aligned with Army business systems.

Site
A site is a physically defined location that can be supported by a legal boundary survey that closes a polygon. It can be owned, leased or otherwise possessed or used. A site may exist in one of three forms: land only, facilities only or land and all the facilities on it. A site is the sum of all real property at a specific site. By definition real property facilities belong to one and only one site, and a site belongs to one and only one installation. The association of real property sites into management entities such as bases, enclaves or complexes does not alter the fundamental relationship between installation and sites.