



# Department of Defense **INSTRUCTION**

**NUMBER** 8130.01

April 9, 2015

Incorporating Change 3, August 4, 2020

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USD(A&S)

**SUBJECT:** Installation Geospatial Information and Services (IGI&S)

**References:** See Enclosure 1

1. **PURPOSE.** In accordance with the authority in DoD Directive (DoDD) 5135.02 (Reference (a)), this instruction establishes policy, assigns responsibilities, and provides governance procedures for IGI&S, pursuant to DoDDs 5105.60 (Reference (b)) and 8000.01 (Reference (c)), and in accordance with Sections 751-759 of Public Law 115-254 (Reference (d)).

2. **APPLICABILITY.**

a. This instruction applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this instruction as the “DoD Components”).

b. Nothing in this instruction alters or supersedes the existing authorities and policies of the Director of National Intelligence regarding geospatial intelligence (GEOINT).

3. **POLICY.** It is DoD policy that:

a. The IGI&S capability applies to the management of DoD installations and environment to support military readiness in the Active, Guard, and Reserve Components with regard to facility construction, sustainment, and modernization as defined in the Glossary.

b. All current and planned investments in IGI&S data, information, and information technology (IT) will:

(1) Conform to the DoD Business Enterprise Architecture (BEA).

(2) Align with core business mission requirements.

(3) Be made visible, accessible, understandable, trusted, and interoperable throughout their lifecycles for all authorized users in accordance with DoD Instruction (DoDI) 8320.02 (Reference (e)).

c. IGI&S standards will harmonize the geospatial concepts, to the greatest extent practicable, with the components of the Geospatial Intelligence Structure Implementation Profile (GSIP) and will be integrated into the GSIP where beneficial.

d. IGI&S capabilities will be available when and where needed in support of the functions and policy described in this instruction, DoD's overarching goals, and the national security of the United States.

4. RESPONSIBILITIES. See Enclosure 2.

5. PROCEDURES. Enclosure 3 describes the Installation Geospatial Information and Services Governance Group (IGG). Enclosure 4 lists guidance for the sustainment geospatial information officer (GIO).

6. RELEASABILITY. **Cleared for public release.** This instruction is available on the Directives Division Website at <https://www.esd.whs.mil/DD/>.

7. SUMMARY OF CHANGE 3. This change:

a. Updates references, organizational symbols, and certain key terms to reflect the reorganization of the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, pursuant to Reference (a), and the Under Secretary of Defense for Intelligence and Security (USD(I&S)), pursuant to Section 1621 of Public Law 116-92 (Reference (an)).

b. Amends the definitions of IGI&S and CIP.

8. EFFECTIVE DATE. This instruction is effective April 9, 2015.



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Under Secretary of Defense for  
Acquisition, Technology, and Logistics

Enclosures

1. References
2. Responsibilities
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Glossary

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ENCLOSURE 1

REFERENCES

- (a) DoD Directive 5135.02, “Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)),” July 15, 2020
- (b) DoD Directive 5105.60, “National Geospatial-Intelligence Agency (NGA),” July 29, 2009
- (c) DoD Directive 8000.01, “Management of the Department of Defense Information Enterprise (DoD IE),” March 17, 2016, as amended
- (d) Public Law 115-254, Sections 751-759, “The Geospatial Data Act of 2018,” October 5, 2018
- (e) DoD Instruction 8320.02, “Sharing Data, Information, and Information Technology (IT) Services in the Department of Defense,” August 5, 2013, as amended
- (f) DoD Instruction 3115.15, “Geospatial Intelligence (GEOINT),” December 6, 2011, as amended
- (g) Office of Management and Budget Circular No. A-16, “Coordination of Geographic Information and Related Spatial Data Activities,” August 19, 2002, as revised
- (h) DoD Directive 5205.02E, “DoD Operations Security (OPSEC) Program,” June 20, 2012, as amended
- (i) DoD Instruction 5030.59, “National Geospatial-Intelligence Agency (NGA) LIMITED DISTRIBUTION Geospatial Intelligence (GEOINT),” March 10, 2015, as amended
- (j) DoD Instruction 5200.48, “Controlled Unclassified Information (CUI),” March 6, 2020
- (k) DoD Instruction 5230.24, “Distribution Statements on Technical Documents,” August 23, 2012, as amended
- (l) DoD Directive 3200.15, “Sustaining Access to the Live Training and Test Domain,” December 18, 2013, as amended
- (m) DoD Instruction 8330.01, “Interoperability of Information Technology (IT), Including National Security Systems (NSS),” May 21, 2014, as amended
- (n) DoD Instruction 4165.14, “Real Property Inventory (RPI) and Forecasting,” January 17, 2014, as amended
- (o) DoD Instruction 3200.16, “Operational Range Clearance (ORC),” April 21, 2015, as amended
- (p) Presidential Policy Directive No. 21, “Critical Infrastructure Security and Resilience,” February 12, 2013
- (q) DoD Directive 3020.40, “Mission Assurance (MA),” November 29, 2016, as amended
- (r) Deputy Secretary of Defense Memorandum, “DoD Mission Assurance Strategy,” May 7, 2012
- (s) DoD Instruction 4715.03, “Natural Resources Conservation Program,” March 18, 2011, as amended
- (t) DoD Instruction 4715.16, “Cultural Resource Management,” September 18, 2008, as amended
- (u) DoD Instruction 4715.14, “Operational Range Assessments,” November 15, 2018
- (v) DoD Manual 4715.20, “Defense Environmental Restoration Program (DERP) Management,” March 9, 2012, as amended

- (w) DoD Instruction 6055.07, “Mishap Notification, Investigation, Reporting, and Record Keeping,” June 6, 2011, as amended
- (x) DoD 6055.09-M, Volume 1, “DoD Ammunition and Explosives Safety Standards: General Explosives Safety Information and Requirements,” February 29, 2008, as amended
- (y) DoD Instruction 6055.17, “DoD Emergency Management (EM) Program,” January 13, 2009, as amended
- (z) DoD Instruction 4165.57, “Air Installations Compatible Use Zones (AICUZ),” May 2, 2011, as amended
- (aa) DoD Directive 4715.11, “Environmental and Explosives Safety Management on Operational Ranges within the United States,” May 10, 2004, as amended
- (ac) DoD Directive 4715.12, “Environmental and Explosives Safety Management on Operational Ranges Outside the United States,” July 12, 2004, as amended
- (ac) DoD Instruction 3030.3, “Joint Land Use Study (JLUS) Program,” July 13, 2004, as amended
- (ad) Unified Facilities Criteria 2-100-01, “Installation Master Planning,” May 15, 2012, as amended
- (ae) Chairman of the Joint Chiefs of Staff Instruction 3901.01D, “Requirements for Geospatial Information and Services,” March 29, 2013
- (af) DoD Instruction 8320.07, “Implementing the Sharing of Data, Information, and Information Technology (IT) Services in the Department of Defense,” August 3, 2015, as amended
- (ag) DoD Chief Information Officer Memorandum, “Department of Defense Information Enterprise Architecture,” Version 2.0, August 10, 2012
- (ah) DoD Instruction 8320.03, “Unique Identification (UID) Standards for Supporting the DoD Information Enterprise,” November 4, 2015, as amended
- (ai) DoD Directive 8140.01, “Cyberspace Workforce Management,” August 11, 2015, as amended
- (aj) Committee on National Security Systems Instruction Number 4009, “National Information Assurance Glossary,” April 26, 2010
- (ak) United States Code, Title 10
- (al) Office of the Chairman of the Joint Chiefs of Staff, “DoD Dictionary of Military and Associated Terms,” current edition
- (am) Joint Publication 3-34, “Joint Engineer Operations,” current edition
- (an) Public Law 116-92, “National Defense Authorization Act for Fiscal Year 2020,” December 20, 2019

ENCLOSURE 2

RESPONSIBILITIES

1. UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND SUSTAINMENT (USD(A&S)). In coordination with the DoD GEOINT Manager, the USD(A&S) has overall responsibility for IGI&S. The USD(A&S):

a. Exercises oversight of IGI&S policy, standards, and investments.

b. Oversees the IGI&S-related activities of DoD Components and ensures alignment of IGI&S activities with GEOINT standards and operations in accordance with DoDI 3115.15 (Reference (f)).

2. ASSISTANT SECRETARY OF DEFENSE FOR SUSTAINMENT (ASD(S)). Under the authority, direction, and control of the USD(A&S), the ASD(S):

a. Provides oversight and establishes uniform processes for the use of geospatial information and services (GI&S) pertaining to management of DoD installations, facilities, and test and training ranges.

b. Provides guidance to meet federal agency obligations in accordance with Office of Management and Budget Circular No. A-16 (Reference (g)).

c. Establishes an IGG to develop coordinated and integrated approaches for IGI&S across DoD, ensuring IGI&S capabilities are interoperable across the DoD information enterprise.

d. Develops, manages, and publishes IGI&S standards. IGI&S standards will be coordinated through the Geospatial Intelligence Standards Working Group (GWG), which will in turn facilitate validation and publication of the standards through the DoD Intelligence Community (IC) Joint Enterprise Standards Committee (JESC) processes into the DoD IC Enterprise Standards Baseline (ESB).

e. Under the direction of the DoD GEOINT Manager, develops guidance for handling controlled unclassified IGI&S under the control and possession of the DoD in compliance with DoDD 5205.02E (Reference (h)), DoDI 5030.59 (Reference (i)), DoDI 5200.48 (Reference (j)), and DoDI 5230.24 (Reference (k)).

f. Designates a GIO to lead the IGG and establish procedures to implement this instruction.

3. UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS. The Under Secretary of Defense for Personnel and Readiness ensures that military trainers use IGI&S capabilities to support military readiness activities on training ranges in coordination with the USD(A&S), consistent with DoDD 3200.15 (Reference (l)).

4. USD(I&S). The USD(I&S):

- a. Implements the provisions of this instruction across the intelligence domain.
- b. Provides guidance to the DoD Components regarding implementation of Reference (j).

5. DIRECTOR, NGA. As the DoD GEOINT Manager and under the authority, direction, and control of the USD(I&S), the Director, NGA:

a. Facilitates use and discovery of IGI&S across the National System for Geospatial Intelligence, and facilitates IGG efforts to make IGI&S data and metadata visible and accessible (to the maximum extent allowed by law or DoD policy) across the federal data sharing environment, to include the Geospatial Platform.

b. Coordinates IGI&S standards through the GWG.

c. Provides guidance to the DoD Components regarding implementation of DoDI 8330.01 (Reference (m)).

6. DoD COMPONENT HEADS. The DoD Component heads:

a. Assign responsibilities and establish procedures within their Component to implement the data collection, guidelines, and procedures specified by this instruction.

b. Ensure that all business systems, geospatial data assets, information, and IT services pertaining to installations and environment in the Active, Guard, and Reserve Components are in compliance with relevant standards, the interoperability guidance established by the ASD(EI&E), and this instruction.

c. Coordinate with the Sustainment GIO when proposing or overseeing new IGI&S-related activities or programs.

d. Coordinate all requirements for IGI&S through the Military Departments or Washington Headquarters Services (WHS), as appropriate, that have authority for the acquisition, management, and disposition of the real property assets to which the IGI&S applies.

e. Participate in the IGG and IGI&S community of interest (COI) as described in Enclosure 3 of this instruction.



7. SECRETARIES OF THE MILITARY DEPARTMENTS AND DIRECTOR, WHS. In addition to the responsibilities in Paragraph 6 of this enclosure, the Secretaries of the Military Departments and the Director, WHS:

a. Designate IGI&S elements within their respective organizations to coordinate IGI&S capabilities and facilitate integration of IGI&S activities and organizational functions across the DoD business enterprise.

b. For each installation, establish a trusted authoritative data source (ADS) for all geospatial data and products produced, acquired, or maintained to fulfill EI&E missions.

(1) This IGI&S ADS will include, but is not limited to, the CIP and all geospatial data or products derived to satisfy the requirements in References (n) through (ad) (e.g., geospatial data or products from integrated natural resource management plans, installation master plans, military munitions response site maps, explosives safety site plans, air installations compatible use zones studies, and joint land use studies).

(2) The IGI&S ADS will provide mechanisms for this data to be made visible, accessible, understandable, trusted, and interoperable throughout their lifecycles for all authorized users (to the maximum extent allowed by law or DoD policy) at the headquarters level as well as across the federal data sharing environment, including the Geospatial Platform.

c. Provide for the creation, maintenance, storage, and secure sharing of CIP data in accordance with Enclosure 3 of this instruction. In addition:

(1) Provide for the creation and maintenance of geospatial data describing the location and extent of all DoD real property as required by DoDI 4165.14 (Reference (n)) and DoDD 3200.16 (Reference (o)).

(2) Provide for the creation and maintenance of geospatial data describing the location and extent of infrastructure data as required by Presidential Policy Directive No. 21 (Reference (p)), DoDD 3020.40 (Reference (q)), and the May 7, 2012 Deputy Secretary of Defense Memorandum (Reference (r)).

(3) Provide for the creation and maintenance of:

(a) Geospatial data describing the location of natural and cultural resources as required by DoDI 4715.03 (Reference (s)) and DoDI 4715.16 (Reference (t)).

(b) Environmental geospatial data as required by DoDI 4715.14 (Reference (u)) and DoD Manual 4715.20 (Reference (v)).

(c) Safety geospatial data as required by DoDI 6055.07 (Reference (w)), Volume 1 of DoD 6055.09-M (Reference (x)), DoDI 6055.17 (Reference (y)), DoDI 4165.57 (Reference (z)), DoDD 4715.11 (Reference (aa)), and DoDD 4715.12 (Reference (ab)).

(d) Installation master planning geospatial information as required by DoDI 3030.3 (Reference (ac)) and Unified Facilities Criteria 2-100-01 (Reference (ad)).

d. Ensure that IGI&S requirements are coordinated with their respective GI&S officers and departmental requirements officers, as appropriate, in accordance with Chairman of the Joint Chiefs of Staff Instruction 3901.01D (Reference (ae)).

8. SECRETARY OF THE ARMY. In addition to the responsibilities in Paragraphs 6 and 7 of this enclosure, the Secretary of the Army:

a. Provides technical development, change management, general support, and implementation support for IGI&S standards, which will be a function supporting the IGG.

b. Ensures that the IGI&S requirements of the United States Army Corps of Engineers civil works program are met, and that these requirements are fully represented in the IGG.

9. SECRETARY OF THE NAVY. In addition to the responsibilities in Paragraphs 6 and 7 of this enclosure, the Secretary of the Navy ensures the IGI&S requirements of the Marine Corps are met, and that these requirements are fully represented in the IGG.

ENCLOSURE 3

IGG

The IGG will:

a. Be composed of the these core members. Additional members will be designated by the ASD(S) as necessary to support the policy of this instruction. Core members include:

- (1) The ASD(S) (chair).
- (2) The Secretaries of the Military Departments.
- (3) The Commandant of the Marine Corps.
- (4) The Director, WHS.
- (5) The Commanding General, U.S. Army Corps of Engineers.
- (6) The DoD GEOINT Manager, who will be an advisory member.

b. Review the IGI&S segments of the BEA and the Real Property Management Functional Strategy, and recommend courses of action to the ASD(S).

c. Function as a standards consensus body for IGI&S. Recommend additions or changes to IGI&S standards for validation through the GWG and submission to the DoD IC JESC for final approval and inclusion into the DoD IC ESB. Coordinate and facilitate standards implementation.

d. Establish guidelines to reduce duplicate investments, enable interoperability of IGI&S capabilities, and ensure that IGI&S data has the quality necessary for effective enterprise-wide decision making.

e. Establish guidelines for IGI&S portfolio management to ensure that existing and future real property management business mission spatial information resources are identified, qualified, catalogued, and made visible and accessible to authorized DoD users by creating and associating metadata, including discovery metadata in accordance with (Reference (g)).

f. Recommend to the ASD(S) for approval a set of geospatial information and services that comprise a CIP, as well as collection, storage, and dissemination procedures. The CIP will include a geospatial feature representing each DoD real property asset as required by Reference (n).

g. Develop mechanisms to make IGI&S data and metadata visible and accessible (to the maximum extent allowed by law or DoD policy) across the federal data sharing environment in accordance with (Reference (g)). This includes the Geospatial Platform.

h. Function as the IGI&S COI, pursuant to DoDI 8320.07 (Reference (af)). The IGI&S COI will develop community practices that focus all IGI&S capabilities on the sustainment responsibilities and functions defined in Reference (a) and the specific geospatial information requirements established in References (n) through (ad).

ENCLOSURE 4

SUSTAINMENT GIO

The Sustainment GIO:

- a. Under the direction of the DoD GEOINT Manager, represents DoD to other federal agencies and in federal forums related to IGI&S and IGI&S standards, such as the Federal Geographic Data Committee established pursuant to (Reference (g)).
- b. Serves as the principal liaison to the DoD GEOINT Manager on all matters pertaining to IGI&S, including the coordination of IGI&S and GEOINT standards.
- c. Chairs the IGG and provides the technical support to execute IGG functions and procedures.
- d. Maintains and issues the CIP, including applicable data standards, business rules, and metrics to assess the quality and completeness of data submitted.
- e. Provides the CIP for planning, programming, analysis, mission assurance, DoD enterprise decision making, responding to queries from the public, government entities, and non-governmental organizations, and for other reporting purposes.
- f. Responds, as required, to IGI&S-related requirements to support OSD, to include analysis, production, requests for technical information, and data dissemination.

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

ADS	authoritative data source
ASD(S)	Assistant Secretary of Defense for Sustainment
BEA	Business Enterprise Architecture
CIP	common installation picture
COI	community of interest
DoDD	DoD directive
DoDI	DoD instruction
GEOINT	geospatial intelligence
GI&S	geospatial information and services
GIO	geospatial information officer
GSIP	Geospatial Intelligence Structure Implementation Profile
IC	intelligence community
IGG	installation geospatial information and services governance group
IGI&S	installation geospatial information and services
IT	information technology
NGA	National Geospatial-Intelligence Agency
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment
USD(I&S)	Under Secretary of Defense for Intelligence and Security
WHS	Washington Headquarters Services

## PART II. DEFINITIONS

Unless otherwise noted, these terms and their definitions are for the purposes of this instruction.

accessible. Defined in the August 10, 2012 DoD Chief Information Officer Memorandum (Reference (ag)).

ADS. Defined in DoDI 8320.03 (Reference (ah)).

authorized user. Defined in DoDD 8140.01 (Reference (ai)).

BEA. Enterprise architecture for the DoD Business Mission Area that reflects DoD business transformation priorities; the business capabilities required to support those priorities; and the combinations of enterprise systems and initiatives that enable those capabilities.

CIP. The distinct, minimum set of geospatial features and imagery necessary to provide a foundational map depicting DoD installations and sites as defined in Reference (n). The purpose of the CIP is to provide an unclassified, readily available, standardized map data set to serve as the basis for planning and execution of ASD(S) responsibilities and functions.

COI. A collaborative group of users who exchange information in pursuit of their shared goals, interests, missions, or business processes, and who therefore must have a shared vocabulary for the information they exchange. The group exchanges information within and between systems to include security domains.

data. Defined in Committee on National Security Systems Instruction Number 4009 (Reference (aj)).

DoD Information Technology Standards Registry. A DoD registry consisting of citations of IT standards approved through a consensus process across DoD and the IC through the DoD IC JESC. The objective is to obtain maximum achievable interoperability and supportability among DoD and IC systems.

geospatial information. Defined in Sections 455(c) and 467 of Title 10, United States Code (Reference (ak)).

GI&S. Defined in DoD Dictionary of Military and Associated Terms (Reference (al)).

GEOINT. The exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the Earth. GEOINT consists of imagery, imagery intelligence, and geospatial information.

geospatial feature. Defined in Reference (n).

Geospatial Platform. A shared technology environment that provides access to trusted geospatial data, services, and applications for use by government agencies and their partners to meet mission needs. As an Office of Management and Budget Shared Services initiative, one of the major goals of the Geospatial Platform is to enable agencies to easily and inexpensively publish their spatial data, analytical tools, and applications within a shared commodity cloud-computing environment. In partnership with data.gov, the Geospatial Platform provides search and discovery capabilities for geospatial data and services of the Federal Government as well as data and services made available by State, regional, local, and tribal governmental partners.

IGI&S. The subset of GI&S activities that apply to the management of DoD installations and environment to support military readiness in the Active, 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 DoD 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. IGI&S supports and is enabled by geospatial engineering and general engineering as defined in Joint Publication 3-34 (Reference (am)).

installation. Defined in Reference (n).

interoperability. The ability of systems, units, or forces to provide data, information, materiel, and services to and accept the same from other systems, units, or forces and to use the data, information, materiel, and services so exchanged to enable them to operate effectively together. IT and National Security Systems interoperability includes both the technical exchange of information and the end-to-end operational effectiveness of that exchange of information as required for mission accomplishment. More than just information exchange, it includes systems, processes, procedures, organizations, and missions over the lifecycle and must be balanced with information assurance.

metadata. Information describing the characteristics of data, data or information about data, or descriptive information about an entity's data, data activities, systems, and holdings. For example, discovery metadata allows data assets to be found using enterprise search capabilities. Metadata can be structural (specifying the format structure), semantic (specifying the meaning), or descriptive (providing amplifying or interpretive information) for data, information, or IT services.

range. Defined in Section 101 (e)(1) of Reference (ak).

secure sharing. The dissemination of information to intended recipients while proactively implementing management, policy, procedural, and technical controls to prevent access to the information by unauthorized persons.

trusted. Defined in Reference (ag).

understandable. Defined in Reference (ag).



visible. Defined in Reference (ag).