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# **CHARTER**

## **Geospatial Intelligence Standards Working Group (GWG)**

Revised 2009



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## **GWG CHARTER, revised August 2009**

### **1. Purpose**

#### **1.1. Charter**

This charter defines the scope, mission, organization, function, responsibilities, and procedures of the GWG. This charter also establishes the Geospatial Intelligence (GEOINT) Standards Working Group (GWG) as a working group under the Department of Defense (DoD) Information Technology (IT) Standards Committee (ITSC) and the DoD IT Standards Oversight Panel that reports to the DoD Chief Information Officer Executive Board as established in references 4.B and 4.C. The DoD ITSC is the governing group responsible for developing and promoting standards interoperability in support of net-centricity within the DoD.

The GWG is led by the National Geospatial-Intelligence Agency (NGA) as the community forum supporting the Director, NGA who serves as the Functional Manager for geospatial intelligence (GEOINT) and the National System for Geospatial Intelligence (NSG), as established in applicable laws, Director of National Intelligence (DNI) and DoD directives, guidance, and agreements cited in references 4.H and 4.I. Reference J designates the NGA Chief Information Officer as the NSG Functional Manager for Architecture and Standards. Reference 4.G defines GEOINT as “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”. Standards that enable the discovery, access, use, integration, dissemination, exchange, and exploitation of GEOINT include, but are not limited to:

- A. Format and compression of still and motion imagery and gridded data content
- B. Application schemas for geospatial feature encoding, data dictionaries and catalogues
- C. Portrayal of geospatial products
- D. Metadata models and strategies for GEOINT
- E. Enabling Overhead Persistent Infrared remote sensing
- F. Transfer and exchange of information
- G. GEOINT services architecture
- H. Sensor models for GEOINT services, production and applications

#### **1.2. GWG**

The GWG serves as a US DoD, Intelligence Community (IC), Federal, and Civil community-based forum to advocate for IT standards and standardization activities related to GEOINT. In this capacity, the GWG supports the Director of NGA in carrying out GEOINT Functional

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Manager responsibilities for standards in accordance with reference 4.I. The GWG performs two major roles: 1) as a Technical Working Group (TWG) of the ITSC, with all the responsibilities of an ITSC body and, 2) as a coordinating body for the GEOINT community to address all aspects of GEOINT standards.

As an ITSC member, the GWG recommends adoption of standards by the DoD and non-DoD components of the IC to the DoD IT Standards Registry (DISR) to enable the discovery, access, integration, dissemination, exploitation and interoperability of GEOINT. The DISR serves as the registry of GEOINT standards and mandates the use of those standards within the NSG community.

The GWG concentrates on GEOINT standards and standardization activities related to enabling interoperability in net- and data-centric environments and standards supporting enabling technologies, data architectures, and software tools. In most instances the GWG focus is on standards in three DISR Service Areas: GEOINT: Geospatial, GEOINT: Motion Imagery and GEOINT: Still Imagery. These Service Areas are described as follows:

### **GEOINT: Geospatial**

Standards that include dictionaries, definitions, models, metadata, and formats to facilitate mapping, analysis, exploitation, portrayal, and exchange of geospatial data.

### **GEOINT: Motion Imagery**

Standards that include the tasking, collection, posting, processing, storage, exploitation, discovery, retrieval, and exchange of motion imagery, associated metadata, audio and other related media types whether generated from electro-optical (EO), infrared (IR), or other motion imagery sensors.

### **GEOINT: Still Imagery**

Standards that include the tasking, collection, posting, processing, storage, exploitation, discovery, retrieval, and exchange of digital imagery and gridded data associated with geospatial intelligence. The standards in this service area address imagery and gridded data topics such as formatting, compression, support data, metadata, graphical and textual annotations, image quality, and imagery-derived data and products. They are applicable to electrical optical (EO), Infra-red (IR), overhead non-imaging IR (ONIR), synthetic aperture radar (SAR) phase history data, SAR (complex and detected) imagery, multispectral imagery (MSI), hyperspectral imagery (HSI), ultraspectral imagery (USI), Polarimetric Imagery (PI), Interferometric Synthetic Aperture Radar (IFSAR), Light Detection and Ranging (LIDAR), raster maps and charts, and Ground Moving Target Indicator (GMTI).

As a GEOINT standards body, the GWG acts as an advisory group to NGA. Through the GWG, community consensus is formed to advance GEOINT standards that enable interoperability, meeting the requirements of community members. The GWG provides a standards-focused forum to:

A. Exchange information and discuss issues

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- B. Make recommendations to NGA regarding GEOINT standards issues, policy, and/or guidance as requested and/or necessary
- C. Identify emerging standards and provide advice on the need to develop new standards; coordinate the development of new standards or specifications when appropriate
- D. Serve as the Subject Matter Expert (SME) within the DoD and the IC for GEOINT standards matters

### **1.3. Community of Interest**

The GWG has officially been registered with Defense Knowledge Online (DKO) as a Community of Interest (COI) in order to facilitate the GWG's need to exchange information and collaboration on standards development, in a near-real time manner. As described in reference 4.D, a COI is a collaborative group of users who must 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. With COI registration, the GWG advances its membership, program of work, and the standards necessary for achieving optimal interoperability.

### **2. Scope**

The GWG provides community leadership and management of GEOINT standardization activities for the NSG. Reference 4.H establishes the NSG and defines it as the combination of technology, policies, capabilities, doctrine, activities, people, data, and communities necessary to produce geospatial intelligence in an integrated multi-intelligence, multi-domain environment. It includes the DoD and non-DoD components of the IC, including, where appropriate, coalition and Federal civil agency partners.

The GWG is responsible for all activities assigned by the ITSC, to include making recommendations for GEOINT standards to be placed into the DISR and for coordinated advice and policy recommendations on GEOINT standards issues related to the DISR. The GWG also serves as the community coordination body for review of GEOINT standards for which NGA is the Lead Standardization Activity as established in the Defense Standardization Program Policies and Procedures, reference 4.A.

In its coordinating and advisory role, GWG activities extend to all aspects of GEOINT standardization, to include but not limited to issues related to GEOINT standards identification, adoption, promulgation, implementation, compliance, and education.

### **3. Mission**

The GWG supports the ITSC in the configuration management of GEOINT standards within the DISR. Additionally, the GWG provides a standards-focused forum that the NSG community can use to exchange and communicate issues regarding GEOINT standards requirements,

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development, implementation, and conformance. The GWG recommends GEOINT standards for data, systems, and their interfaces to ensure interoperability with DoD and non-DoD systems.

### **4. References**

- A. DoD Directive 4120.24-M, Defense Standardization Program (DSP) Policies and Procedures, March 2000
- B. DoD, Information Technology Standards Committee (ITSC) Charter, 9 August 2004
- C. DoD Information Technology Oversight Panel (ISOP) Charter, 10 February 2005
- D. DoD Net-Centric Data Strategy, 9 May 2003
- E. DoD Standard Operating Procedures for the Information Technology Standards Committee (ITSC), Its Technical Working Groups (TWGs), and Its Focus Groups (FGs), 28 July 2009
- F. Executive Order 12333, United States Intelligence Activities, amended July 31, 2008
- G. NGA, National System for Geospatial Intelligence, Geospatial Intelligence (GEOINT) Basic Doctrine, Publication 1-0, September 2006
- H. National System for Geospatial Intelligence Directive (NSGD FM 1100), Roles and Responsibilities of the Functional Manager of the National System for Geospatial Intelligence (NSG) and the Establishment of the NSG, 1 May 2006
- I. National System for Geospatial Intelligence Directive (NSGD ST 8100), Roles and Responsibilities of the National System for Geospatial Intelligence Functional Manager for Geospatial Intelligence Architecture and Standards, 1 March 2007
- J. National System for Geospatial Intelligence Memorandum for NGA Chief Information Officer, Mar 17 2008
- K. OMB Circular No. A-119 Revised, Federal Participation in the Development and use of Voluntary Consensus Standards and in Conformity Assessment Activities, 10 February 1998

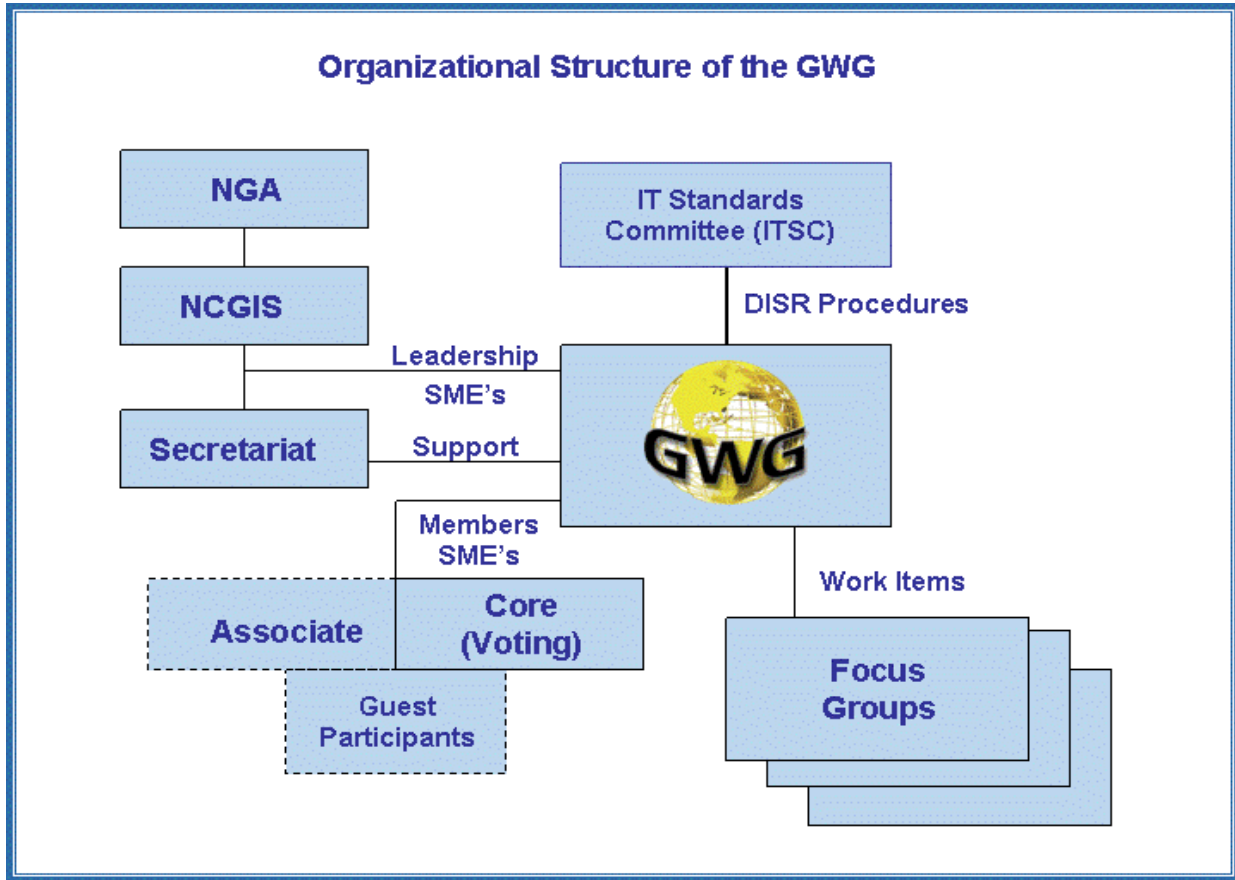
### **5. GWG Organization**

The GWG is organized to support the DoD ITSC and GEOINT standards community effectively and efficiently. The GWG consists of the following (See Figure 1.0):

- A. Chair: The Director, NGA/National Center for Geospatial Intelligence (NCGIS), or designated alternate chairs the GWG. The functions of the chair are stated in reference 4.E, paragraph 3.4.2.
- B. Secretariat: The Director of NCGIS provides or arranges for the Secretariat and administrative support for the GWG.

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- C. Focus Groups: Focus Groups are established at the initiative of the GWG Chair or Core membership to address a specific problem or to produce one or more specific deliverables. The GWG may establish standing or ad-hoc Focus Groups.
- D. Members:
- i. Core Members: Core Members have primary authority and responsibility toward gathering consensus in the GWG. Core Members are listed in Appendix B, Section 2.
  - ii. Associate Members: Associate Members augment the core membership resources as representatives from other organizations to serve as subject matter experts. Specific member organizations are designated by the GWG Chair. These members fall into the following categories:
    - External Standards Forums: National and International standards development and promulgation bodies and consortia, for example, Defence Geospatial Information Working Group (DGIWG), Open Geospatial Consortium (OGC), and the International Organization for Standardization (ISO)
    - Commercial Sector: The GWG will establish relationships, where appropriate, with commercial vendors and consortia in order to communicate GWG requirements and influence those communities to meet requirements through non-proprietary Standards-Based Commercial-Off-The-Shelf (SCOTS) solutions.
    - NATO Allies, coalition partners and other stakeholder nations: This category of membership includes U.S. International partners, such as the United Kingdom, Canada, and Australia as well as NATO organizations such as the NATO Joint Capability Group on Intelligence Surveillance & Reconnaissance (JCGISR).
- E. Guest Participants: The GWG Chair or core members may invite individuals or teams as Guests for technical presentations as deemed appropriate by the GWG Chair.



**Figure 1.0  
GWG Organization Chart**



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**6. Functions and Responsibilities**


The GWG is responsible for:

- 1) Coordinating population and configuration management of the GEOINT standards within the DISR
- 2) Serving as the community forum for the coordination of all standards and standardization activities and functions related to GEOINT

**7. Procedures**

- A. The GWG will meet two to three times per calendar year. The chair or any Core Member may request additional meetings of the GWG if circumstances dictate. GWG meetings follow a published agenda prepared and distributed by the chair. The chair is responsible for overseeing and directing all meetings.
- B. Detailed procedures are documented in the GWG standard operating procedures, which are approved by GWG core members.
- C. The GWG shall review this charter every three years or more often as changes dictate, and GWG core members shall approve revisions, as necessary, to ensure adequate continuity and appropriateness.

Approved:

  
\_\_\_\_\_  
Signature 12-15-2009  
Date

Gregory E. Black, NGA  
Chairman, Geospatial Intelligence Standards Working Group  
Director, National Center for Geospatial Intelligence Standards

  
\_\_\_\_\_  
Signature 11/19/09  
Date

Dr. Robert H. Laurine, Jr.  
NSG Functional Manager for Architecture and Standards  
NGA Chief Information Officer

**Appendix A: Acronyms**

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AT&L	(USD) Acquisition, Technology and Logistics
CIA	Central Intelligence Agency
CENTCOM	US Central Command
COI	Community of Interest
DARPA	Defense Advanced Research Projects Agency
DIA	Defense Intelligence Agency
DGIWG	Defence Geospatial Information Working Group
DISA	Defense Information Systems Agency
DISR	DoD IT Standards Registry
DHS	Department of Homeland Security
DLA	Defense Logistics Agency
DoD	Department of Defense
DOE	Department of Energy
EO	Electro-Optical
EUCOM	US European Command
FGDC	Federal Geographic Data Committee
GEOINT	Geospatial Intelligence
GMTI	Ground Moving Target Indicator
GWG	Geospatial Intelligence Standards Working Group
HSI	Hyperspectral Imagery
LIDAR	Light Detection and Ranging
IC	Intelligence Community
IFSAR	Interferometric Synthetic Aperture Radar
IR	Infrared
ISO	International Organization for Standardization
IT	Information Technology
ITSC	Information Technology Standards Committee
JFCOM	US Joint Forces Command
JCGISR	Joint Capability Group on Intelligence Surveillance & Reconnaissance
MSI	Multispectral Imagery
NATO	North Atlantic Treaty Organization
NCGIS	National Center for Geospatial Intelligence Standards

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NII	(OSD) Networks and Information Integration
NGA	National Geospatial-Intelligence Agency
NORTHCOM	US Northern Command
NRO	National Reconnaissance Office
NSA	National Security Agency
NSG	National System for Geospatial Intelligence
OGC	Open Geospatial Consortium
ODNI	Office of the Director of National Intelligence
OSD	Office of the Secretary of Defense
PACOM	US Pacific Command
PI	Polarimetric Imagery
SAR	Synthetic Aperture Radar
SCOTS	Standards-based Commercial-Off-The-Shelf
SOCOM	US Special Operations Command
STRATCOM	US Strategic Command
TWG	Technical Working Group
USD	Under Secretary for Defense
USI	Ultraspectral Imagery

**Appendix B: Core Membership**

GWG's Core Membership consists of the following organizations:

1. National Geospatial-Intelligence Agency (NGA)
2. Central Intelligence Agency (CIA)
3. National Reconnaissance Office (NRO)
4. National Security Agency (NSA)
5. Office of the Director of National Intelligence (ODNI)
6. Office of the Secretary of Defense: Networks and Information Integration(NII/ Acquisition, Technology and Logistics (AT&L) {NII and AT&L}
7. US Army
8. US Navy
9. US Air Force
10. US Marine Corps
11. US Central Command (CENTCOM)
12. US European Command (EUCOM)
13. US Joint Forces Command (JFCOM)
14. US Northern Command (NORTHCOM)
15. US Pacific Command (PACOM)
16. US Special Operations Command (SOCOM)
17. US Strategic Command (STRATCOM)
18. Joint Staff J2
19. Federal Bureau of Investigation (FBI)
20. Federal Geographic Data Committee (FGDC)
21. Defense Information Systems Agency (DISA)
22. Defense Intelligence Agency (DIA)
23. Defense Logistics Agency (DLA)
24. Defense Advanced Research Projects Agency (DARPA)
25. Department of Energy (DOE)
26. Department of Homeland Security (DHS)