



# Geospatial Intelligence Standards Working Group

The Geospatial Intelligence  
Standards Working Group  
**-GWG-**

For more information, contact the GWG  
Secretariat at [NCGIS-mail@nga.mil](mailto:NCGIS-mail@nga.mil)

# GWG Focus Groups

- NITFS Technical Board (NTB)
- Motion Imagery Standards Board (MISB)
- Community Sensor Model Working Group (CSMWG)
- Geographic Portrayal (PFG)
- Application Schemas for Feature Encoding (ASFE)
- Metadata (MFG)
- Information Transfer and Services Architecture (ITSA)
- Overhead Persistent Infrared (OPF)

Focus Groups are the *primary mechanism for Community engagement* with subject-matter-experts (SMEs)



# GWG Focus Group Functions

- **Serve as the NSG community forum** for issues relating to a particular GEOINT standards area
- **Report to and advise the GWG** on standardization issues related to that area
- **Make recommendations to the GWG** on candidate DISR standards for GEOINT

<https://nsgreg.nga.mil/>



# NITFS Technical Board (NTB)

**The National Imagery Transmission Format Standard (NITFS) Technical Board (NTB) is the technical focal point for still imagery, and still imagery-related standardization activities across the NSG.**

The NTB:

- Facilitates the selection, development, adoption, implementation, and testing of standards that are essential to the interoperability and quality of still imagery
- Addresses standards issues related to still imagery and gridded data, data compression, product annotation, support data, metadata, and quality
- <https://nsgreg.nga.mil/ntb.jsp>

Visit the NTB website at: <http://www.gwg.nga.mil/ntb/index.html>

Contact the NTB Chair: [ntbchair@nga.mil](mailto:ntbchair@nga.mil)



# NITFS Technical Board (NTB) Questions

- Are you involved with the development, selection, adoption, profiling, documentation, application, implementation, and/or testing of standards essential to establishing interoperability and quality for still imagery, associated metadata, and other related aspects within the National System for Geospatial-Intelligence (NSG)?
- Do your still imagery (to include gridded data) standardization interests include: imagery formats, imagery data compression technology, imagery and imagery-derived support data (metadata), imagery processing parameters, and/or the means to annotate imagery and imagery products?
- Do you need to nominate/register additions to standardized imagery-related metadata value lists, code lists, NITF Tagged Record Extensions (TREs), or NITF Data Extension Segments (DES)?
- Do you need to coordinate imagery-related standardization issues within the US defense and intelligence community (IC) and/or with international standardization forums such as the NATO Joint Capabilities Group for Intelligence, Surveillance and Reconnaissance (JCGISR), the Defence Geographic Information Working Group (DGIWG), or the International Organization for Standardization (ISO)?
- Do you desire consultation/assistance with the interpretation and application of DoD/IC-adopted still imagery and gridded data standards?



# Motion Imagery Standards Board (MISB)

The Motion Imagery Standards Board (MISB) is the technical focal point for establishing motion imagery interoperability standards across the NSG.

The MISB:

- Formulates, reviews, and recommends standards, recommended practices, and engineering guidelines for motion imagery, video, associated metadata, audio, and other related systems
- Promotes world-wide interoperability based largely on open, international, commercial standards to leverage large commercial R&D investments
- Leads the Motion Imagery community and Manages the Motion Imagery Domain Space to deliver universally interoperable, superior quality, cost manageable motion imagery systems to our warfighters / decision makers
- <https://nsgreg.nga.mil/misb.jsp>

Visit the MISB website at: <http://www.gwg.nga.mil/misb/index.html>

Contact the MISB Chair: [misbchair@nga.mil](mailto:misbchair@nga.mil)



# Motion Imagery Standards Board (MISB) Questions

- Does your organization work with video?
- Is your organization striving for interoperability of video systems?
- Are your video requirements driven by DoD and/or Intelligence community requirements?
- Is your video sent to another location for exploitation?
- Is your video catalogued and searched by outside users and customers?
- Does your organization wish to establish and define a systematic approach to managing, organizing, and disseminating video?



# Community Sensor Model Working Group (CSMWG)

**The Community Sensor Model Working Group (CSMWG) establishes standards for interoperable sensor models that enable the efficient collection and distribution of GEOINT source data.**

The CSMWG:

- Develops, verifies, validates, maintains and conducts configuration management of sensor model standards
- Collects and maintains community technical requirements for sensor data
- <https://nsgreg.nga.mil/csmwg.jsp>

Visit the CSMWG website at: <http://csmwg.seicorp.com>

Contact the CSMWG Chair: [csmwgchair@nga.mil](mailto:csmwgchair@nga.mil)



# Community Sensor Model Working Group (CSMWG) Questions

- Are you involved with the development, selection, adoption, application, implementation, and/or testing of standards essential to developing, testing, and evaluating current or future imaging sensor models?
- Do your interests in imagery exploitation software development, selection, adoption, application, implementation, and/or testing, include the functional capabilities of mosaicking/triangulation, resolution merges, change detection, precise positioning, error propagation estimates, or georeferencing?
- Do you require assistance in the verification process of determining that a sensor model implementation accurately represents the developer's conceptual description and specifications, or the validation process of determining the degree to which a sensor model is an accurate representation of the real-world from the perspective of the intended uses of the sensor model?
- Do you need to collaborate upon or coordinate imagery sensor model related standardization issues within the United States defense and intelligence community (IC) and/or with international standardization forums such as NATO or the International Organization for Standardization (ISO)?
- Do you desire/require staff assistance and/or consultation with the interpretation, implementation or application of DoD/IC adopted standards for the development and/or verification/validation of imaging sensor models?



# Overhead Persistent Infrared (OPG)

- The Overhead Persistent Infrared (OPG) Focus Group works issues across functional domains concerning OPIR data and metadata standards development in support of fostering net-centric data services.
- The OPG is Co-chaired by the National Geospatial-Intelligence Agency (NGA) in concert with the United States Strategic Command's Joint Functional Component Commander for Space, U.S. Air Force Space Command (AFSPC). The OPG was formed to improve support to operations and intelligence by exposing OPIR data in a net-centric SOA
- <https://nsgreg.nga.mil/opir.jsp>

For additional information visit the OPG Intelipedia site

[https://www.intelink.gov/wiki/ONIR Focus Group](https://www.intelink.gov/wiki/ONIR_Focus_Group)



# Overhead Persistent Infrared (OPG) Questions

- Do you work with OPIR information and seek to create or use interoperable net-centric OPIR data services to share data/information?
- Do you create metadata to help users and customers to search your catalogued OPIR data holdings?
- Are your OPIR information requirements derived from DoD and/or Intelligence community requirements?
- Do you need to display OPIR data on maps or spatially registered images?
- Do you require metadata profiling and harmonization with other members of the NSG, IC, or DOD Operational or Technical OPIR communities?
- Do you have a requirement to post, discover, access, and analyze OPIR data and information in a distributed environment?



# Portrayal (PFG)

**The Portrayal Focus Group (PFG) facilitates the development, implementation, and interoperability of standards relating to the visual depiction of physical features and geographically referenced activities.**

The PFG:

- Addresses visual symbolization of GEOINT and symbol design for both digital display and hardcopy media
- Coordinates symbology requirements and develops and populates standards registries for GEOINT
- <https://nsgreg.nga.mil/pfg.jsp>

Visit the PFG website at: [http://www.gwg.nga.mil/focus\\_groups/pfg/index.html](http://www.gwg.nga.mil/focus_groups/pfg/index.html)

Contact the PFG Chair: [pfgchair@nga.mil](mailto:pfgchair@nga.mil)



# Portrayal (PFG) Questions

- Does your program require geospatial information or data to be portrayed (presented to humans in human-understandable form)?
- Does your program involve visualization of the battlespace or common operational picture?
- Does your program involve the generation or design of map/chart products?
- Does your program/system require a network-enabled or web-enabled portrayal, as from a feature portrayal service in a web services architecture?
- 5. Does your program require standardized symbology?



# Application Schemas for Feature Encoding (ASFE)

## The ASFE:

- Addresses standards related to the **encoding of features** used in the production of GEOINT and GEOINT products
- Develops GEOINT product specifications, standards for electronic feature catalogues, and conceptual schemas for data required by one or more applications

## The ASFE Human Geography (HG) Working Group:

- Serves as subject matter experts and as a coordinating body chartered to address the development of a data dictionary, data standards, a common vocabulary, and lexicon for the standardization of HG data
- Will standardize the lexicons and vocabularies used in the representation, exchange, portrayal, and analysis of HG data

<https://nsgreg.nga.mil/asfe.jsp>

Visit the ASFE website at: [http://www.gwg.nga.mil/focus\\_groups/asfe/index.html](http://www.gwg.nga.mil/focus_groups/asfe/index.html)

Contact the ASFE Chair: [asfechair@nga.mil](mailto:asfechair@nga.mil)



# Application Schemas for Feature Encoding (ASFE) Questions

- Does your program require the acquiring, processing, analyzing, accessing, presenting and transferring of geospatial information in digital and or electronic forms between different users, systems and locations?
- Does your program require standards that specify items of geospatial information and are designed to support net- and data-centricity?
- Does your application use, display and/or communicate information about geospatial concepts; e.g. definitions or descriptions of items of geospatial information?
- Does your program/system require a net- and data-centric common NSG-wide logical data model?
- Does your model/architecture require an NSG application schema [that determines the syntactic structure used to represent the geospatial semantics specified in your data model and data dictionary]?



# Metadata (MFG)

**The Metadata Focus Group (MFG) is dedicated to coordinating and harmonizing GEOINT metadata standards activities to advance data interoperability across the NSG.**

The MFG:

- Supports development of a Core GEOINT metadata standard, CORE extensions that support specialized GEOINT areas, and schemas for the exchange and storage of GEOINT metadata
- Participates in metadata standards forums within the Intelligence Community, Department of Defense, and other U.S. and International Standards bodies, such as ISO TC211, to ensure NSG metadata requirements are addressed
- <https://nsgreg.nga.mil/mfg.jsp>

Visit the MFG website at: [http://www.gwg.nga.mil/focus\\_groups/mfg/index.html](http://www.gwg.nga.mil/focus_groups/mfg/index.html)

Contact the MFG Chair: [mfgchair@nga.mil](mailto:mfgchair@nga.mil)



# Metadata Focus Group Questions

- Does your organization work with GEOINT information?
- Is your organization striving for interoperability and sharing of information within the Geospatial Community of Interest (COI)?
- Is your metadata and geospatial requirements driven by DoD and/or Intelligence community requirements?
- Are your data holdings catalogued and searched by outside geospatial users and customers?
- Does your organization wish to establish and define a systematic approach to managing, organizing, and disseminating metadata information?
- Does your organization require metadata profiling and harmonization efforts with others in the National System for Geospatial-Intelligence (NSG) community?



# Information Transfer and Service Architecture (ITSA)

**The Information and Transfer Service Architecture (ITSA) Focus Group addresses “data services” needed to support GEOINT in a distributed, real-time environment.**

The ITSA Focus Group:

- Identifies requirements for standards, services, and data encodings needed to support network transfer, such as web and catalog services
- Evaluates emerging service architecture components and technologies
- <https://nsgreg.nga.mil/itsa.jsp>

Visit the ITSA website at: [http://www.gwg.nga.mil/focus\\_groups/itsa/index.html](http://www.gwg.nga.mil/focus_groups/itsa/index.html)

Contact the ITSA Chair: [itsachair@nga.mil](mailto:itsachair@nga.mil)



# Information Transfer and Services Architecture (ITSA) Focus Group Questions

- Does your development have a requirement to access and display maps or spatially registered images (optionally filtered) or to access (optional controlled) to geospatial information or spatially registered images?
- Does your development have a requirement for a web service interface for requesting, filtering, and retrieving/transferring geospatial data?
- Does your development have a requirement for posting, discovery, access, and analysis of GEOINT data stores and information stores in a distributed, real-time environment?
- Does your development have a requirement to utilize service architecture components and technologies such as OWS, UDDI, WSDL, SOAP, XML, and J2EE?
- Does your development have a requirement for a "Workflow" architecture and design to reduce complexity and increase efficiency from the user's perspective?



# GWG Focus Groups

- **NITFS Technical Board (NTB)**
  - FGDC links – **NDOP**, **USGS**, **FS-NRCS-FSA**, **NOAA**, **NASA**, **DHS**, **Census**
    - NOTE: NTB is standing up a Lidar Subgroup - **NDEP**
- **Motion Imagery Standards Board (MISB)**
  - FGDC links – **NASA**, **FS**, **DHS**
- **Community Sensor Model Working Group (CSMWG)**
  - FGDC links – **NOAA**, **NASA**, **USGS**
- **Geographic Portrayal (PFG)**
  - FGDC links – **USGS**, **FS**, **DHS**

**BOLD** – Lead  
**BOLD** – Major interest  
Non-bold - interest



# GWG Focus Groups

- **Application Schemas for Feature Encoding (ASFE)**
  - FGDC links – A-16 Theme leads - USGS, FS, TVA, DOT, FWS, BLM, NPS, EPA, GSA, DOS
    - NOTE: ASFE has stood up a Human Geography Subgroup
- **Metadata (MFG)**
  - FGDC links – FGDC Metadata Working Group (w/USGS, NOAA, NASA, LOC, NARA, EPA, DOS, ...), FGDC Clearinghouse WG
- **Information Transfer and Services Architecture (ITSA)**
  - FGDC links – DHS, USGS, FS, NOAA, NASA, Census, DOJ, DOE, HHS
- **Overhead Persistent Infrared (OFG)**
  - FGDC links – NDOP, NASA, NOAA, USGS

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[www.gwg.nga.mil](http://www.gwg.nga.mil)