Ground-Warfighter Geospatial Data Model (GGDM)

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BUILDING STRONG®
Goal and Applicability of Ground-Warfighter Geospatial Data Model

- Goal of Ground-Warfighter Geospatial Data Model (GGDM) Program is provide mechanism to consistently depict and use “common” Geospatial Data across Army Programs and systems to ensure interoperability.
  - “Depict” refers to how feature/attributes/enumerates are expressed based upon authoritative DOD and Ground-Warfighter Geospatial data dictionaries and data models.
  - “Use” of geospatial data encompassed full range of functions including acquisition, generation, management, analysis, visualization and dissemination of geospatial data

- Focus of first versions of AGDM ver 1.0 - 2.1 is feature data only.
  - Focus on well known geospatial products produced and managed by NGA, AGC, DCGS-A
  - Content primarily topo features (LOC, facilities, infrastructure, physical terrain)

- GGDM Applicability, as documented in the Army Geospatial Enterprise Policy,
  - All Army PORs and non-PORs that utilize, manage, store, and/or disseminate GI&S.
  
Note: Non-POR is defined as those systems fielded via ONS/JUONS, outside the normal JCIDS process, etc.
GGDM 2.1 Update

**Approach and Methods:**
Use “Common Model Delivery Framework” tools and proven DM methods and techniques to generate GGDM logical and physical database models.

**Results:**
- GGDM 2.1 Logical Data Model
- Physical Esri ArcGIS 10 geodatabases of GGDM 2.1

**Payoff:**
- Enable consistent, efficient and sharable use of geospatial data across battle command systems (including operations, intelligence, mission rehearsal, and training).

**Purpose:**
Develop and maintain a Ground Forces geospatial logical and physical database model containing common geospatial concepts required to share data and support common geospatial application services across the AGE.

**Combination of Existing Geospatial Products and Emerging Data Content Specifications:**
- From NGA
- From Army
- From USMC & Allies
- New content for GGDM 2.1 (red text)
Coordination with NGA, USMC, ABCA Allies on Ground Forces Geospatial Data Model (GGDM)

- Agreement in principle to Establish a Ground Force Geospatial Data Model (GGDM) for USMC and Army Geospatial Communities
  - GGDM based upon AGDM
  - Wholly compatible with NSG standards (NFDD, NAS, TDS)
  - Add Littoral and Riverine Data Types
  - Baseline Esri GeoDB (reference implementation) of GGDM that supports synchronization/replication between USMC, USA, NGA
  - Baseline ELT mapping tables from TGD to TDS/GGDM.
  - Anticipate including USASOC as partner in agreement

- Coordinating with NGA/NCGIS
  - Inclusion of unique Ground Warfighter data concepts (feat types, attr types, values) from GGDM.
    - Mostly agreement, some questions, a few issues/non-concur
    - Not necessary to get NGA agreement on 100% of content … BUT beneficial.
    - Establish “standard” feature classes to be used in conjunction with TDS 4.0. and GGDM 2.1 geodatabase across NGA, USA, USMC, …

- TCM Geospatial/AGC Coordination of GGDM with ABCA Armies
  - Adopted GGDM 2.1 (TGD 4.0)
  - Discussions about experimenting with rep-sync across ABCA, USA, … NGA, …
Requirements Tracking Concepts

National Geospatial Intelligence Agency

All DOMAINS use same parent Data Dictionary

NSG NFDD

DCS = Entity Catalog + Extraction Guide

NFDD

USA National Extensions/Requirements

NSG

International

DFDD

UNCLASSIFIED

GGDM combines specific content from all these NGA sources plus additional Army/USMC sources

USER

Full access to all web service data stores.

Web Service/Data environment

GGDM

National Geospatial Intelligence Agency

DCS

NFDD

NSG FC

NAS

NFDD

Data Content Spec(s)

Data Store

Aeronautical

Data Store

Maritime

Data Store

Topographic (TFDM)

Data Store

Names & Boundaries

Data Store

Elevation

Data Store

Regional (Operational) (>200-399K)

Data Store

Local (Tactical) (24-200K)

Data Store

Specialized (Urban) (<24K)

Data Store

Global (Strategic) (>=400K)

Data Store

Names & Boundaries

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GRLS (SOTU) (S2 Development)

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Implementation Schedule

- Urban Tactical Planner to GGDM 2.1 (Urban/Specialized) – Jun 2012
- Theater Geospatial Database (TGD) to GGDM 2.1 (Local) – Jun 2012
- TGD to GGDM 2.1 (Urban/Specialized) – Aug 2012
- UFD to GGDM 2.1 – Sep 2012
- CAFD to GGDM 2.1 – Sep 2012
- TLM50 to GGDM 2.1 – Oct 2012
- ICM to GGDM 2.1 – Nov 2012
Near-Term Schedule

- Released Final GGDM 2.1 - 17 Oct 2011
- Developed Charter for Ground Warfighter Working Group (GWG) with USMC and NGA – 3 Nov 2011
- Released Final GGDM 2.1 physical – 16 Nov 2011

- Develop Draft GGDM 2.2 for review - 30 Aug 2013
- Complete review of Draft GGDM 2.2 - 30 Oct 2013
- Finalize and Publish GGDM 2.2 - 15 Nov 2013
Questions?

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