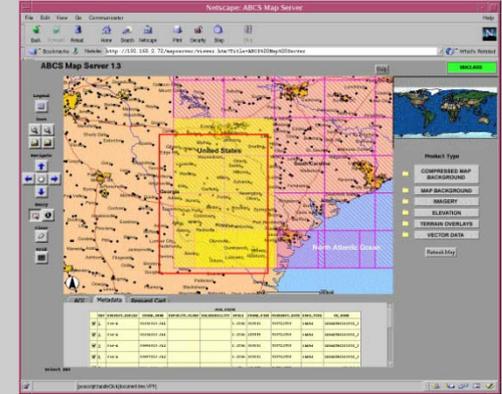


Army Geospatial Organizations & Systems

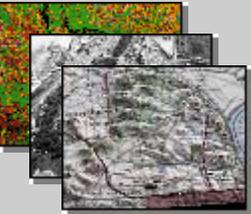


“Geospatial Data, Concepts and Operations will give our soldiers the ‘home field advantage’ in any future national emergency.”

GEN Peter J. Schoomacher –
29 April 2005

COL Michael Hendricks





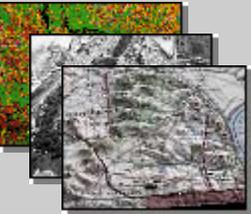
Geospatial Science in the Military

The military increasingly relies on geospatial technology and data to achieve information dominance on the battlefield. Examples include: GPS, satellite imagery, real-time force tracking, sensor integration, and massive geographic databases.

Key groups

- **Intelligence Community: Geoint**
- **Engineering Community: Geospatial Engineering**
- Space Operations Functional Area (FA 40)
- Modeling and Simulation Functional Area (FA 57)
- Many others





National System for Geospatial Intelligence (NSG)



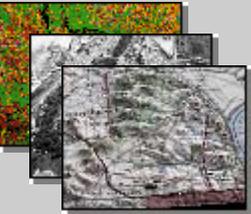
- The National System for Geospatial Intelligence (NSG) is a unified community of geospatial intelligence (GEOINT) experts, producers and users organized around the goal of integrating technology, policies, capabilities and doctrine to produce GEOINT in a multi-intelligence environment.

Members

- Office of the Director of National Intelligence
- Central Intelligence Agency
- Defense Intelligence Agency
- National Security Agency
- National Geospatial-Intelligence Agency (NGA)**
- National Reconnaissance Office
- Drug Enforcement Agency
- Joint Staff
- Military Departments including:
 - U.S. Army
 - U.S. Navy
 - U.S. Air Force
 - U.S. Marine Corps
- Department of State, Bureau of Intelligence and Research
- Federal Bureau of Investigation
- Department of Homeland Security, Office of Intelligence and Analysis
- U.S. Coast Guard, Office of Intelligence
- Department of Energy, Office of Intelligence
- Department of Treasury, Office of Terrorism
- Combatant Commands:
 - U.S. Functional Commands
 - U.S. Special Operations Command

Partners

- U.S. Geological Survey
- U.S. Department of Treasury
- U.S. Department of the Interior
- Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Department of Justice
- U.S. Department of Agriculture
 - Foreign Agricultural Service
 - Forest Service
- U.S. Department of Commerce
- National Oceanic and Atmospheric Administration
- U.S. Health and Human Services
- Department of Homeland Security:
 - Federal Emergency Management Agency
- U.S. Coast Guard
- National Science Foundation
- Defense Information Systems Agency
- Defense and Civil GEOINT service providers
- Commonwealth partners
 - Australia
 - Canada
 - New Zealand
 - United Kingdom
- Industry
- Academia

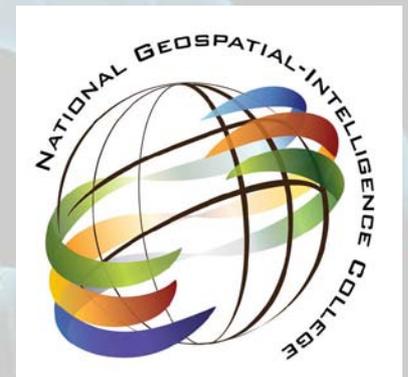


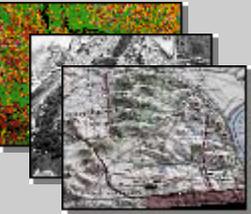
NGA

- National Geospatial-Intelligence Agency (NGA)
 - Functional Manager of NSG
 - Ft Belvoir (NGA Campus East) & St Louis



- National Geospatial-Intelligence College
 - NGC delivers quality learning programs in geospatial intelligence (GEOINT), leadership and professional development for the GEOINT community
 - The NGC curriculum spans the following five learning programs: (1) Leadership, (2) Workforce professional development, (3), Sensors, (4) Analysis, (5) Military Programs

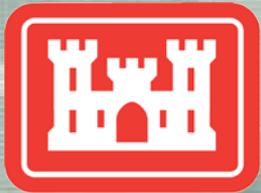
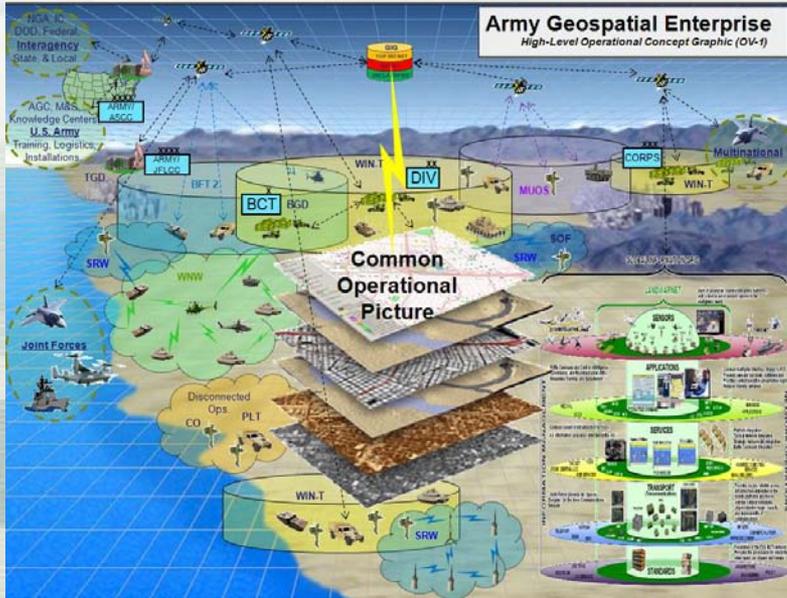




Other Joint Geospatial Organizations

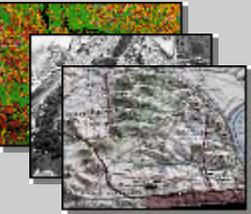
- Central Intelligence Agency (CIA)
 - Defense Intelligence Agency (DIA)
 - National Security Agency (NSA)
 - National Reconnaissance Office (NRO)
 - Defense Installation Spatial Data Infrastructure (DISDI)
- 

Army Geospatial Enterprise (AGE)



®

US Army Corps of Engineers
BUILDING STRONG®

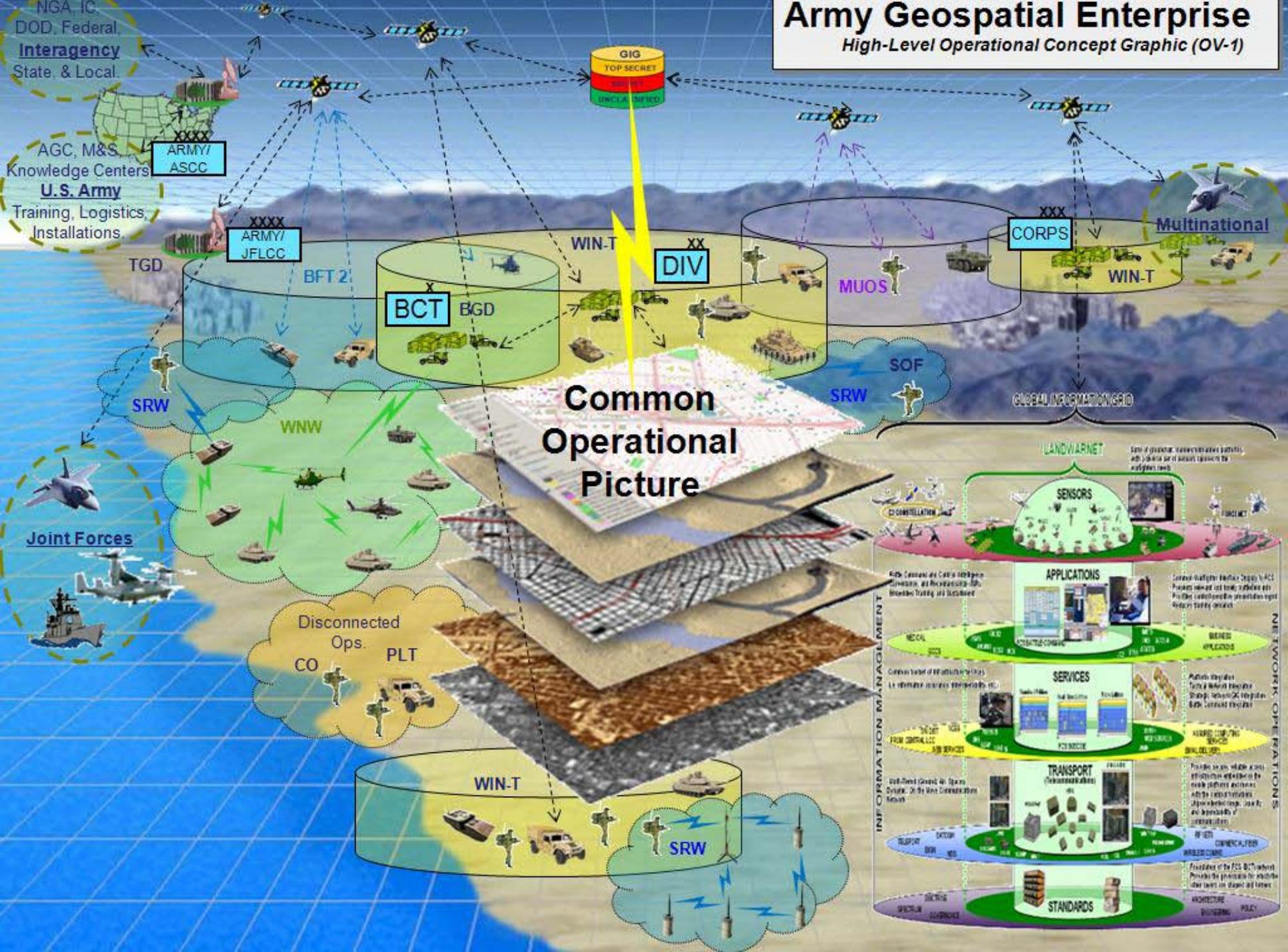


Army Geospatial Enterprise

- Army Geospatial Center (AGC)
- Army Geoint Office (AGO)
 - Army Geoint Battalion
- Army G-2, Geospatial Information & Services Team
- Office of the Chief of Engineers, Geospatial Information Branch
- TRADOC Capability Manager (TCM – Geospatial)
- Topographic Engineering Center (TEC)
- Geospatial Information Science Program at West Point
- Tactical Units

Army Geospatial Enterprise

High-Level Operational Concept Graphic (OV-1)



NGA, IC
DOD, Federal
Interagency
State, & Local.

AGC, M&S
Knowledge Centers
U.S. Army
Training, Logistics,
Installations.

**Common
Operational
Picture**



Joint Forces

Disconnected
Ops.
CO PLT

WIN-T

SRW

XXX
CORPS

Multinational

TGD

XXXX
ARMY/
JFLCC

BCT BGD

XX
DIV

SRW

SOFA

GLOBAL INFORMATION GRID

SRW

WNW

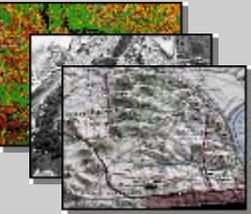
WIN-T

XX

MUOS

XXX

WIN-T



The Army Geospatial Enterprise

Definition: The Army Geospatial Enterprise is an integrated system of technologies and processes that delivers a geospatial Common Operational Picture (COP) to the Warfighter. This COP results from storing all operationally relevant spatial and temporal data in a standardized, distributed geodatabase which then enables sharing and fusing of data from all six warfighting functions across the Army.

The Army Geospatial Enterprise (AGE) comprises the (1) people, (2) organizations, and (3) technology involved in (a) acquiring and (b) managing geospatial data that affects all Army missions

At its core, the AGE is a distributed database and supporting infrastructure that is based on a common suite of interoperable software

The AGE allows geospatial data and information to be collected, stored, fused, analyzed, and disseminated from peer to peer and from echelon to echelon, down to the individual Soldier

Goal: Collect geospatial information once and allow discovery and exploitation by all

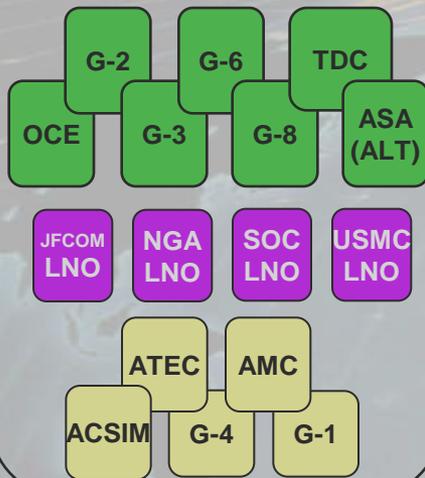
Organizational Implementation



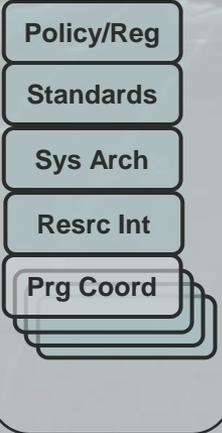
Army Geospatial Information Officer
 Director, AGC
 Deputy Topographer of the Army

Geospatial Enterprise Office

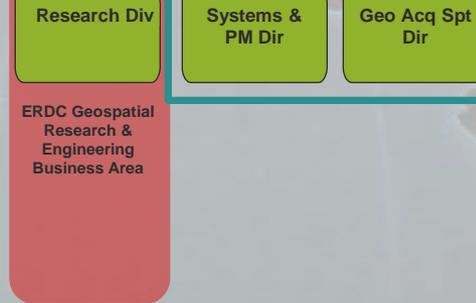
GSTF



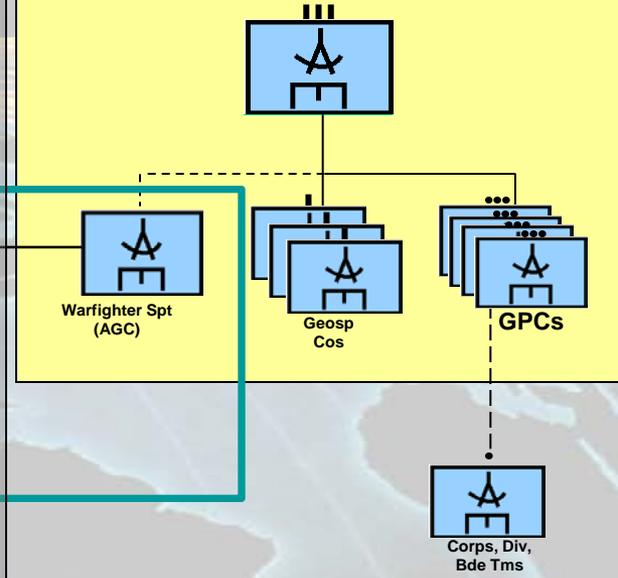
GGB Staff



U.S. Army Geospatial Center (formerly TEC)



Geospatial Engineer Group



Army Geospatial Center (AGC)



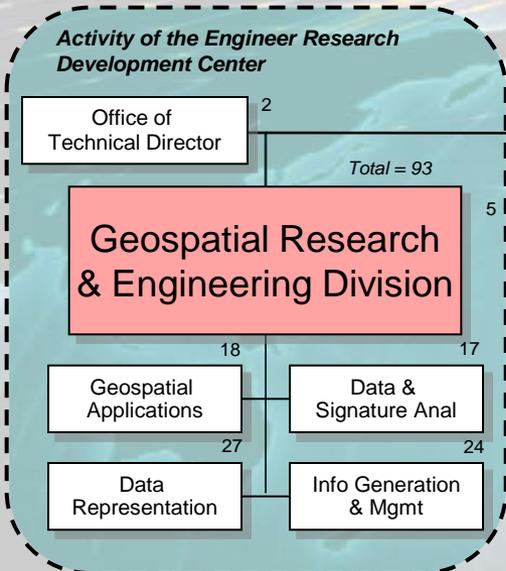
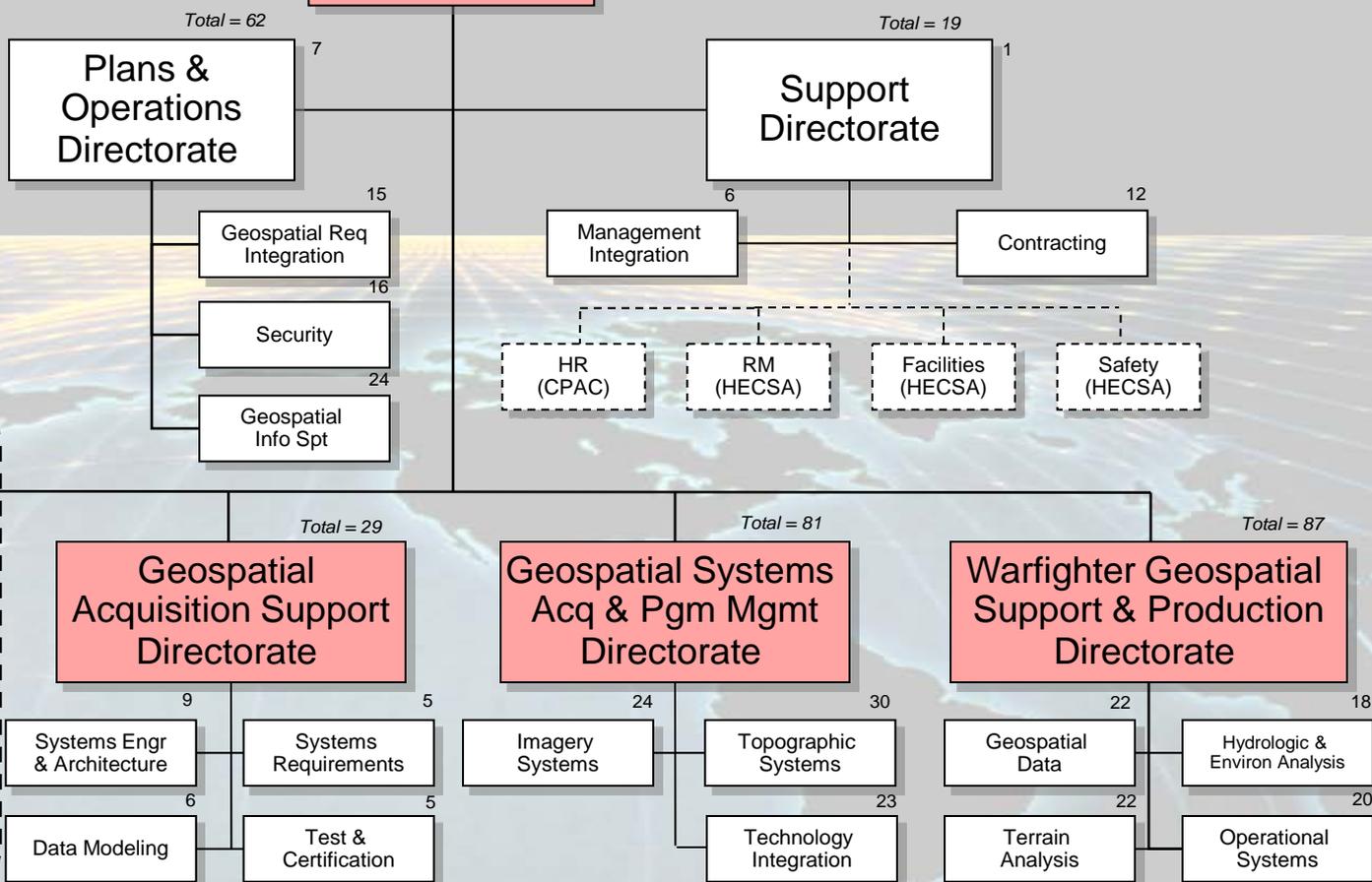
The current Director of the AGC is Dr. Joseph Fontanella

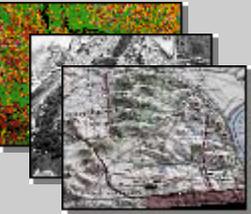
Director, AGC

AGC Totals

AGC Required- 7/242/35
 ERDC Assets- 0/093/00
Total - 7/335/35
377

*Mil/Civ/Cont





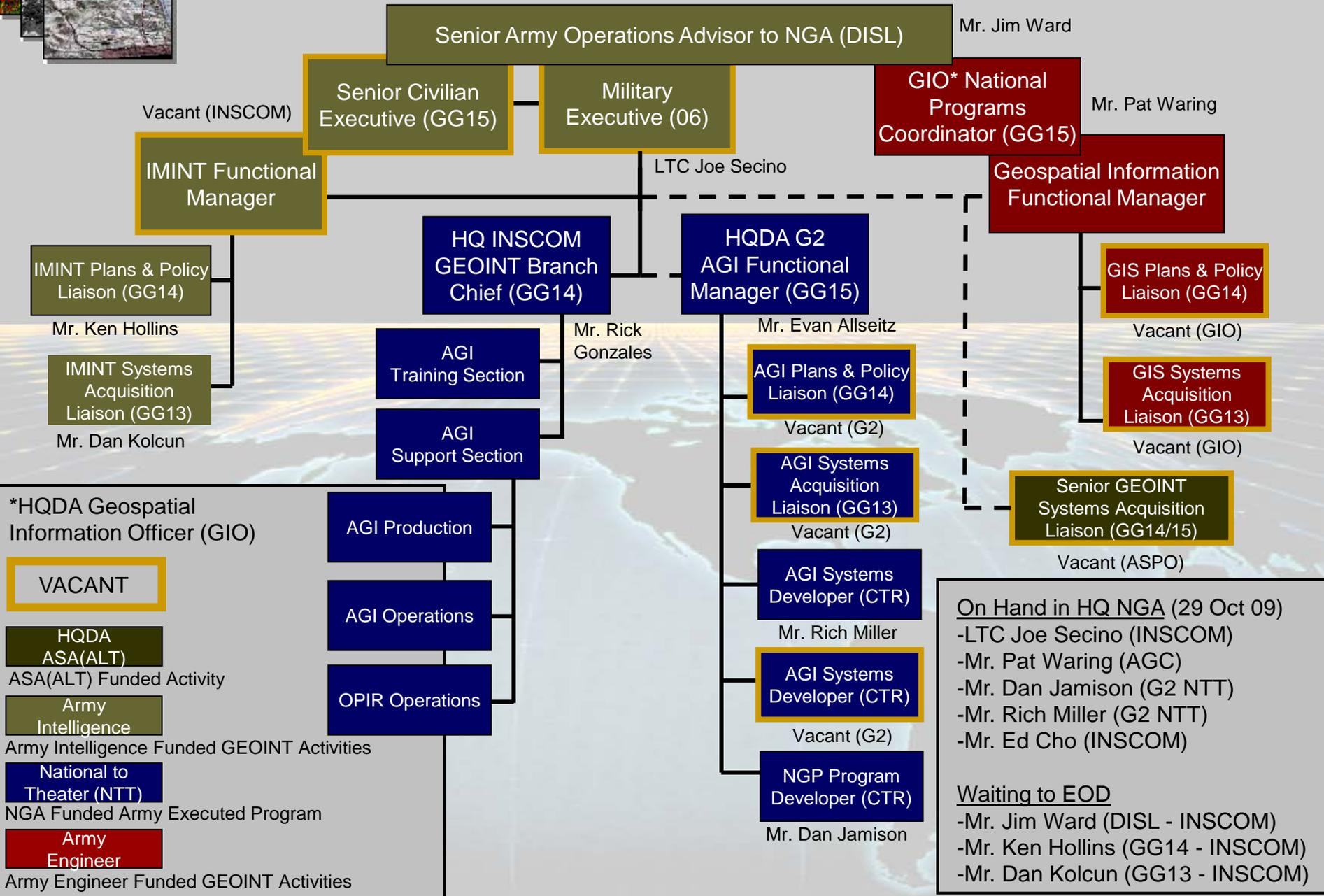
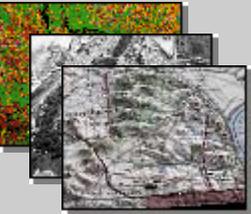
Army GEOINT Office (AGO)

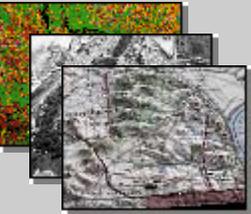
The Army GEOINT Office supports Army GEOINT policy, operations, capabilities, and resourcing through integrated and coordinated liaison and engagement with NGA as a focal point for specific service-related GEOINT activities.

Provide integrated liaison to NGA for the following Army activities

- Coordination and Communication
- Analysis & Production
- Tradecraft & Doctrine Development
- Sustainment Training
- Policy
- Resource Management
- Data Standards
- Systems Management & Acquisition
- Research and Development

Army GEOINT Office Organization





Army Geospatial Units



Geoint Battalion, Ft Belvoir NGA



Geospatial Planning Cells (GPC)

- 5th GPC Fort Shafter HI
- 60th GPC Germany
- 132nd GPC Atlanta
- 512th GPC Ft Sam Houston, TX



Companies

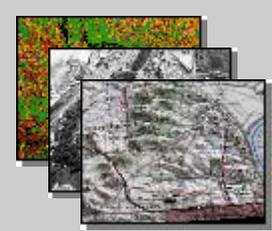
- 100th Topographic Company, Ft Bragg



Geoint Cells

- Each BCT & Div Staff

GeoInt Battalion



GPC Organization

CONTROL

CONTROL
2-1-3-6

- 1 - LTC - TOPOGRAPHIC ENGR - 21B
- 1 - MAJ - OPERATIONS OFF - 21B
- 1 - CW3 - GEOSPATIAL INFO TECH - 215D
- 1 - SGM - SR TOPO OPS SGT - 21Y50
- 1 - MSG - TOPO OPS SGT - 21Y50
- 1 - SPC - TERRAIN DATA SPEC - 21Y10

AUTHORIZED: 26 X MILITARY
ASSIGNED: 21 X MILITARY
DA CIV: 1 X GS12
CONTRACTOR: 6 X CIV
NGA GA: 2 X CIV

DATA MANAGEMENT AND GENERATION SECTION

DATA MGMT/GEN
0-1-19-20

SEC HQ
0-1-1-2

- 1 - CW2 - GEOSPATIAL INFO TECH - 215D
- 1 - SFC - SR TERRAIN DATA SGT - 21Y40

Deployable

DATA MGT
0-0-14-14

- 1 - SSG - SQUAD LDR - 21Y30
- 3 - SGT - TERRAIN DATA SGT - 21Y20
- 5 - SPC - TERRAIN DATA SPEC - 21Y10
- 5 - PFC - TERRAIN DATA SPEC - 21Y10

DATA GEN
0-0-4-4

- 1 - SSG - SQUAD LDR - 21Y30
- 1 - SGT - TERRAIN DATA SGT - 21Y20
- 1 - SPC - TERRAIN DATA SPEC - 21Y10
- 1 - PFC - TERRAIN DATA SPEC - 21Y10

8TSC

130EN



65th En Bn
(Combat Effects)



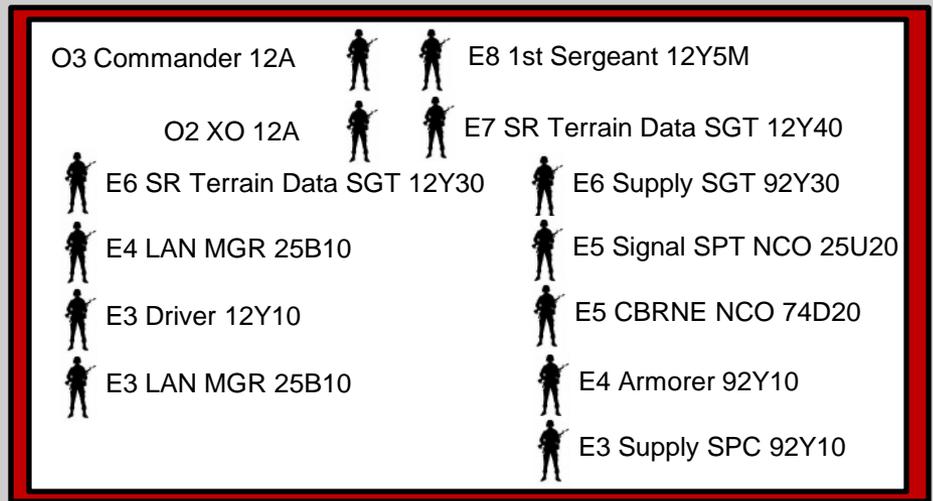
G2

5th En Det (GPC)

USARPAC

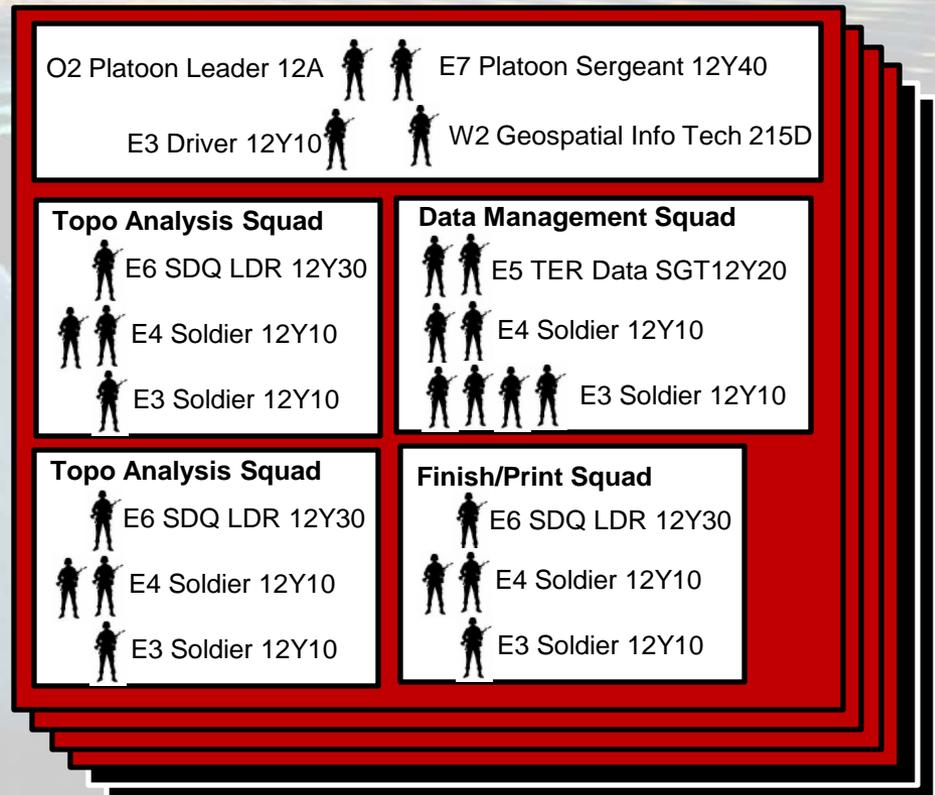
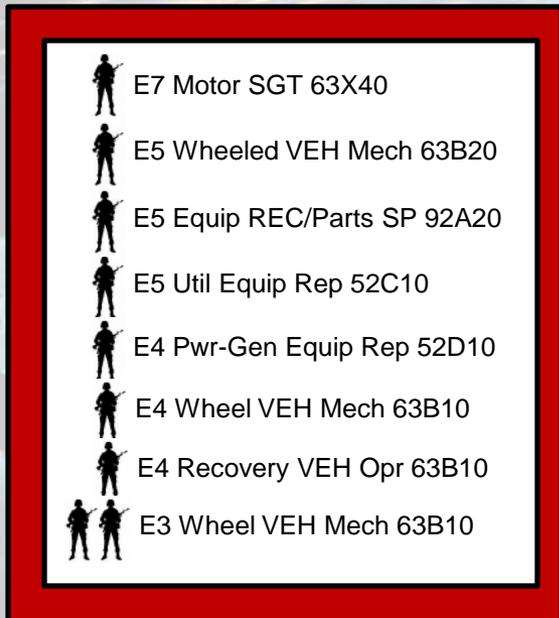
Topo Co Organization

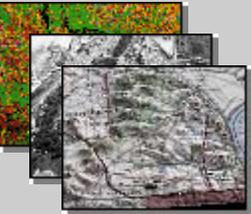
1 x HQ



4 x Geospatial Platoons

1 x Field Maint Team





GeoInt Cell



- Imagery Analysts and Geospatial Engineers working together
 - BCT
 - Division



COMBAT TERRAIN INFORMATION SYSTEMS (CTIS)



- CTIS consists of the:
 - DTSS-Light (DTSS-L) [HMMWV] Brigade through EAC
 - DTSS-Deployable (DTSS-D) [COTS/Transit Cases]
 - DTSS-Base (DTSS-B) [COTS/Garrison]
 - DTSS-High Volume Map Production (DTSS-HVMP)
 - Automated Integrated Survey Instrument (AISI)
- Development efforts also being accomplished include:
 - Army Map Server
 - ENFIRE
- DTSS-L, DTSS-D, and DTSS-B capabilities migrate to Distributed Common Ground System – Army (DCGS-A)



Army Map Server



ENFIRE



DTSS-L



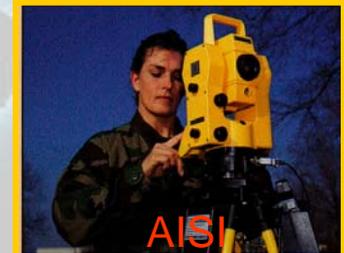
DTSS-D



DTSS-B



DTSS-HVMP



AISI