Commercial GEOINT Activity Overview

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A joint National Geospatial-Intelligence Agency (NGA) and National Reconnaissance Office (NRO) effort to ensure that the US Government takes full advantage of legacy and emerging commercial geospatial intelligence (GEOINT) capabilities to satisfy mission needs and maximize the efficiency and effectiveness of the overhead architecture.
Why now?

• Dynamic technology advances—including the commoditization of collection/analysis and automation—are creating new complementary capabilities for commercial GEOINT to support mission needs.

• The need for better coordination requires a centralized focal point between NGA and NRO to assess and to understand the potential of the commercial GEOINT marketplace for our mission needs.
CGA’s Scope

• Engagement
  - Lead industry outreach and support NGA and NRO user community outreach
  - Facilitate the development and deployment of CGA’s assessment infrastructure

• Assessment
  - Conduct two-stage value assessment against NSG user needs and requirements; quarterly refresh
  - Inform synchronized decision-making on the acquisition of commercial GEOINT capabilities

• Policy
  - Anticipate and prepare NGA and NRO for commercial imagery licensing reviews and policy actions
  - Maximize advantages inherent in commercial innovation while protecting national security

Approved for public release (NGA 17-355, NRO 2017-01591)
Aligned Assessment Processes

- Market Research & Engagement
  - CGA Phase 1: Screen Stated Commercial Capabilities
  - Community Review
  - Community Validation: Execute R&D Demonstrations to Validate Capabilities and Mitigate Risks
  - CGA Phase 2: Advise D/NGA D/NRO

Shared Market Research Database

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Assessment Process—First Phase

Vendor Input

External Leaderboard
Operated by OG Systems:
Contractors Self-identify Performance Capabilities

Weight Factors

Perform Prelim Assessment:
- Score = (Profile fit, Risk Rank)
- Mission Utility
- Ease of Integration
- Availability
- Business Maturity

Profile Fit + Risk Rank ≈ Rankings

Internal Leaderboard:
Refer top commercial GEOINT vendors per profile

Gather Additional Product Information for Profile Risk Evaluation

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CGA Leaderboard

- A web-based market research platform
  - Articulates GEOINT needs
  - Enables industry to submit capabilities with instant feedback
  - Serves as a preliminary basis for gov’t understanding of relative capabilities
  - Informs future commercial GEOINT investment and acquisition activities (AoA)
Product Profiles

Imagery

Imagery is composed of primary raw data or processed output from a remote sensing sensor which represents natural or man-made features or objects reproduced electronically or by an optical means on film, electronic display devices, or other media. Imagery is delivered in formats such as NITF and GeoTIFF.

Derived Data

Derived data is machine readable GEOINT data derived from imagery and/or other sources and is best viewed in Geographic Information System (GIS) programs to convey observations about specific areas at discrete points in time or over a period of time. Derived data includes products presented as heat maps or vector overlays and is delivered in raster or vector formats such as JPEG, TIFF, KML, KMZ, and SHP.

Structured Data

Structured data is machine readable GEOINT data which identifies unique observations or features which can be made available in a linked data environment. It conveys specific information and relationships about objects, points, or areas at discrete points in time or over a period of time and can support object-based production (OBP) or structured observation management (SOM) and other related initiatives. Structured data resides in fixed fields within a record or file, is derived from imagery and/or other sources, and is delivered in formats such as GeoJSON or CSV.

Map Products

Map products are finished Foundation GEOINT products delivered to NGA following NGA specifications for Source Foundation production.
### Toggle Views

#### Application
- Mono Image Products
- Ortho Image Products
- Stereo-Pairs Image Products
- Topographic Products
- Maritime Products
- Elevation Products
- Geodesy Products
- Aeronautical Products
- Other
- Unknown

#### Data Source GSD
- < 0.5 m
- < 1 m
- < 2 m
- < 4 m
- < 8 m
- < 20 m
- > 20 m
- N/A
- Unknown

#### Global Refresh
- ~ Daily
- Day - Month
- Quarterly
- < Year
- 1 - 5 Years
- 5 - 10 Years
- > 10 Years
- N/A
- Unknown

#### Regional Refresh
- < Day
- Day - Week
- Week - Month
- Month - Year
- 1 - 5 Years
- N/A
- Unknown

#### Geolocation Accuracy
- < 5 m
- < 10 m
- < 20 m
- < 30 m
- < 50 m
- < 100 m
- > 100 m
- N/A
- Unknown

#### Production
- Tasking
- Pre-emptive
- Order
- Fixed Production
- N/A
- Unknown

#### Quality Assurance
- 0 - 10%
- 10 - 25%
- 25 - 50%
- 50 - 75%
- 75 - 100%
- N/A
- Unknown

#### Delivery Window
- Immediate
- < 1 Hour
- < 1 Day
- 1 - 5 Days
- > 5 Days
- N/A
- Unknown

#### Data Source Origin
- U.S.
- International
- Unknown

#### Data Sources
- Overhead Imagery
- Open Source
- Paid Open Source
- Crowd Source
- GFI
- Other
- Unknown

#### Data Source Diversity
- Optional Sources
- Multi-source
- Single Source
- N/A
- Unknown
Assessment Process—Second Phase

- CGA Assessment Toolbox:
  - Architecture analysis tools
  - CONOP evaluation tools
  - Economic Analysis
- CGA long-term funding recommendations to NGA and NRO acquisition decision boards

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Anticipated Outcomes

- Strengthened GEOINT marketplace
- Modernized data, tools, and algorithms
  - Diversified data sources
Questions?
www.geoint.community/cga