



# InnoVision Overview

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Precision Strike Annual Programs Review





# Functional Manager for NSG RDT&E

InnoVision is the Functional Manager for the National System for Geospatial Intelligence Research, Development, Test, and Evaluation (NSG RDT&E). Our mission is to advance basic and applied research and development (R&D) of leading-edge science and technology and accelerate the incorporation of results into the operational environment.





# R&D Partners working with InnoVision



*Creating The Future...*



# Vision for the NSG Future State

Users have as-needed access across phenomenologies, platforms, space and time to the customized geospatial intelligence data, information, tools and knowledge they need to:

**Anticipate, Understand, and Respond**  
to events, trends and developments of national security importance

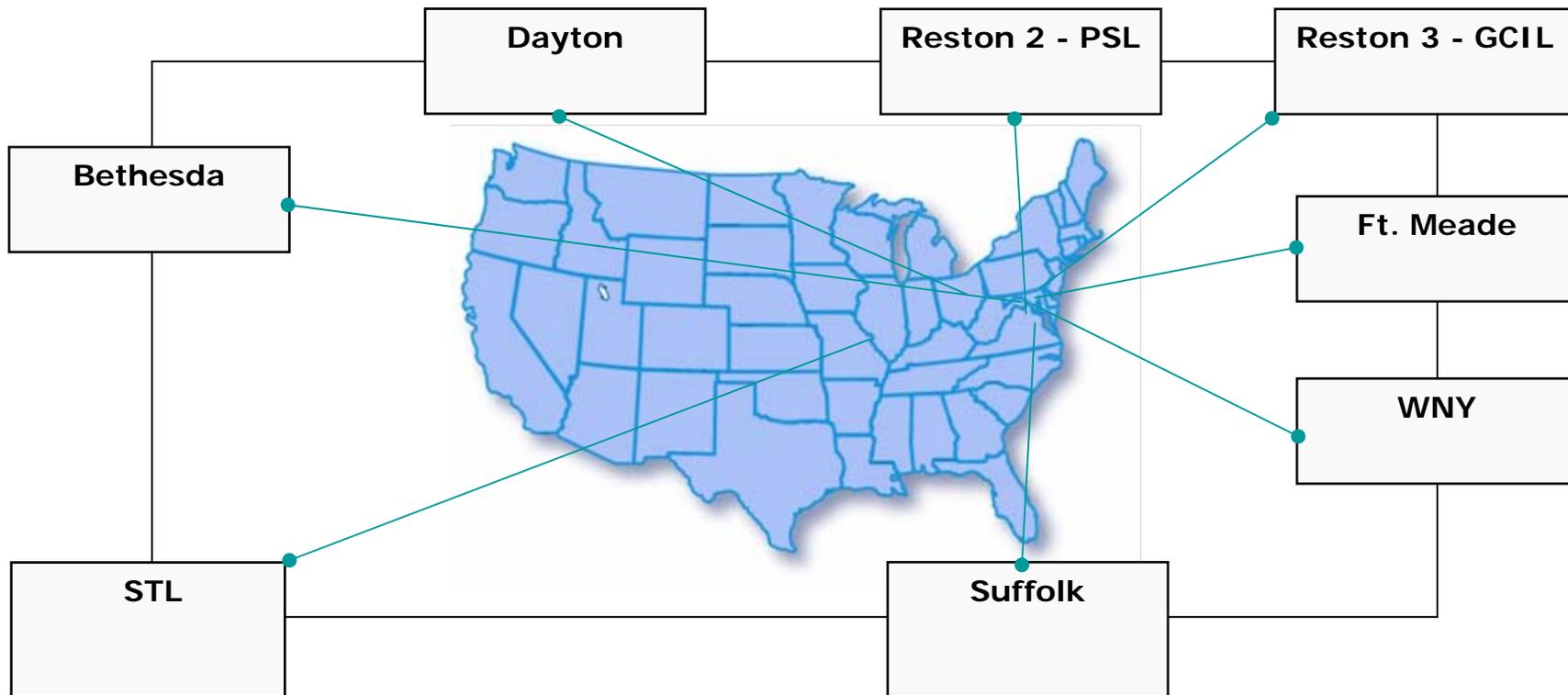


# NGA Focus Areas

1. Look outward and be the most collaborative partner with the IC and Warfighter
2. Invest in our people, with a commitment to diversity, to preserve our Nation's GEOINT advantage
3. Strengthen quality of analysis in concert with other IC partners
4. Develop and execute a comprehensive commercial imagery strategy
5. Integrate airborne with NTM and other sources
6. Implement an information technology structure to provide access and discovery of GEOINT
7. **Advance basic research and development of leading edge science and technology**
8. Achieve front-end—back-end alignment extending from collection platforms, to building a foundation knowledge base, to providing comprehensive access to and assimilation of NGA products and services
9. Build new and enhance enduring international partnerships
10. Transform mission performance through the New Campus East and further development of our facilities in the West
11. Maintain the highest Standards of Conduct
12. Strengthen governance and performance management

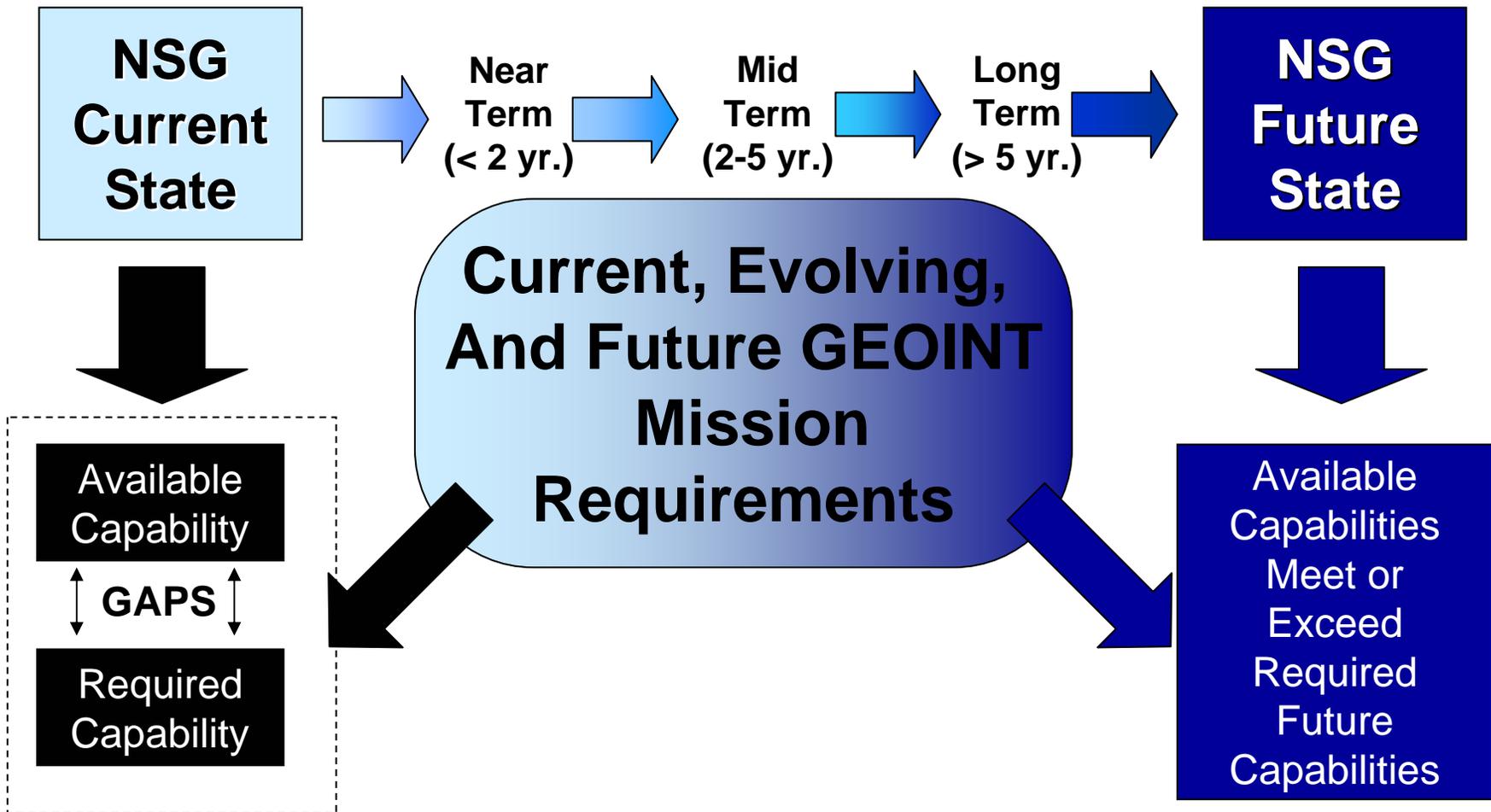


# InnoVision Locations



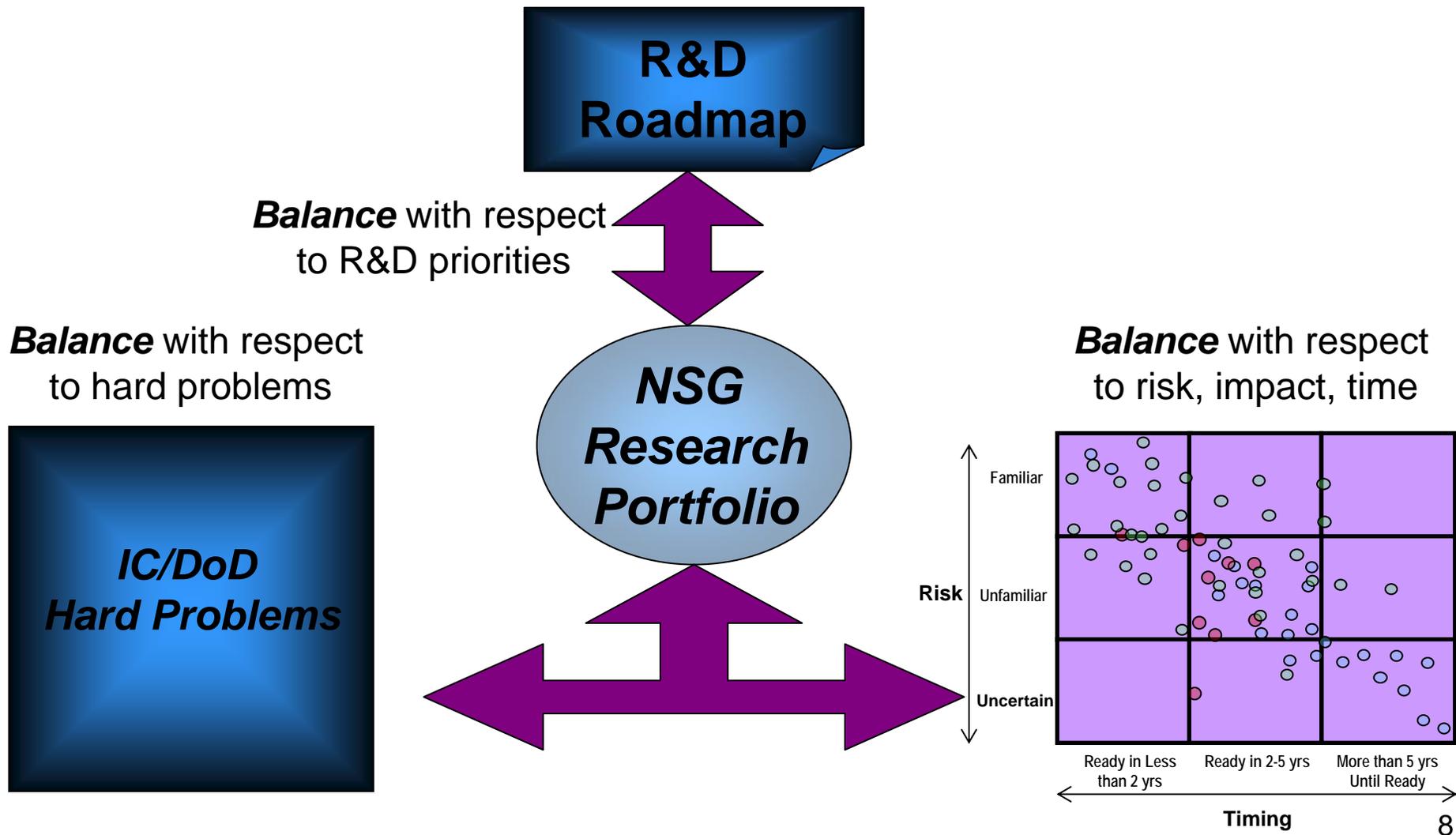


# Moving the NSG to a Future State that Meets Future GEOINT Mission Requirements





# R&D Strategic Management: Ensuring Balance Across All Dimensions





# InnoVision R&D Portfolios

- **EXPLORATION OF NEW PHENOMENOLOGIES** – Exploiting the potential of new phenomenologies for meeting critical partner needs. These include hyperspectral, light detection and ranging (LIDAR), overhead non-imaging infrared (ONIR), motion video, moving target information, sensor networks, gravity gradiometry and geochemistry.
- **GEOSPATIAL INTELLIGENCE ANALYTICS** – Developing new approaches to GEOINT analysis and, more broadly, intelligence analysis that result in significant improvement in analytic capabilities. These approaches will exploit research in geospatial knowledge discovery and knowledge management, in how analysts think about spatial and temporal analysis and interact with spatial and temporal data, and in applications of economic and social geography to solving hard intelligence problems.
- **AUTOMATED IMAGE AND GEOSPATIAL DATA UNDERSTANDING** – Developing new approaches to automated or assisted understanding of imagery and geospatial data that hold the promise of order-of-magnitude improvements in processing time, throughput and information extraction and conflation. This work will also revolutionize the way NGA maintains and updates the NSG's foundation data.



## InnoVision R&D Portfolios (continued)

- **MULTI-SOURCE AND MULTI-INT FUSION** – Developing new capabilities for fusing information from multiple sensors, from multiple sources, and from multiple INTs in ways that dramatically improve our ability to detect, locate, and track objects.
- **INTEGRATED PROBLEM-DRIVEN COLLECTION** – Developing capabilities for problem-driven collection strategies that seamlessly draw on all sources of information relevant to solving the problem at hand.

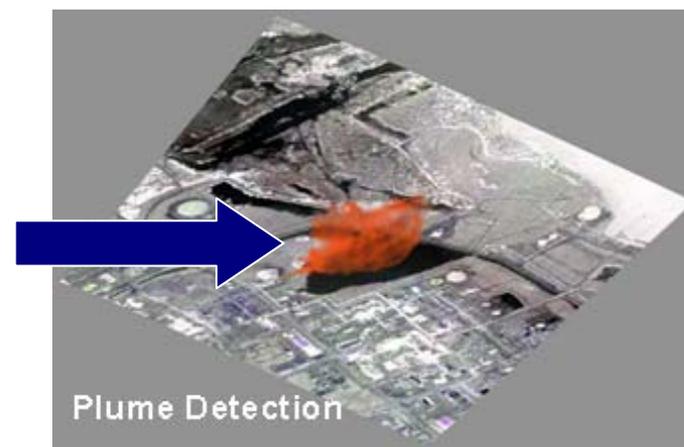
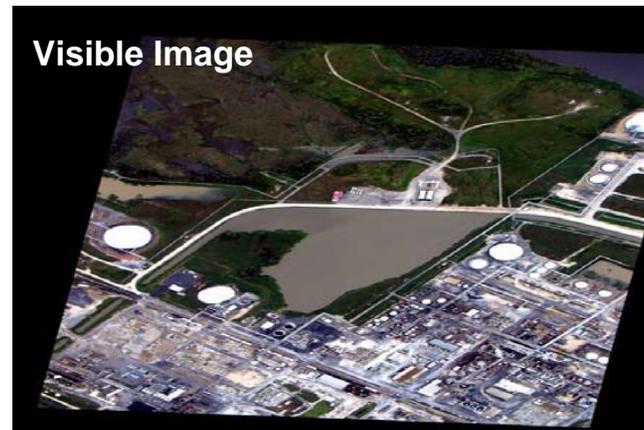


# Ongoing Initiatives



# Airborne Sensors Support of Disaster Relief Efforts

- Flew airborne spectral missions post 9/11, Hurricanes Rita and Katrina
- Found leaking gases used to direct response team to important areas of concern



Airborne sensors can be diverted to support disasters



# Deployed Interoperable Node for GIAT Operations (DINGO)

- **Easily transported and installed**
- **System Description:** 2 Windows/Linux (dual boot) workstations, 1 Solaris (UNIX) workstation, 1 Network Attached Storage device (2 TB or better), 1 Windows based computer to ingest/convert/archive full motion video (Predator, etc), 4 hardware video encoders, 4 tape playback units (for video), 2 routers, 1.8m SATCOM dish (quick deploy), additional SATCOM gear (operates on Ku or C band, up to 6 Mbps data rate), Secure wireless hardware, etc, as needed
- **Capability:** Runs the gamut - full ArcGIS, ERDAS Imagine, Rainstorm (w/ Z-screen), Socet Set/GXP, MET, Remote View, Google Earth client (not server), etc.





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# Questions?

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