# National Air and Space Intelligence Center

# Advanced Technical Exploitation Contract

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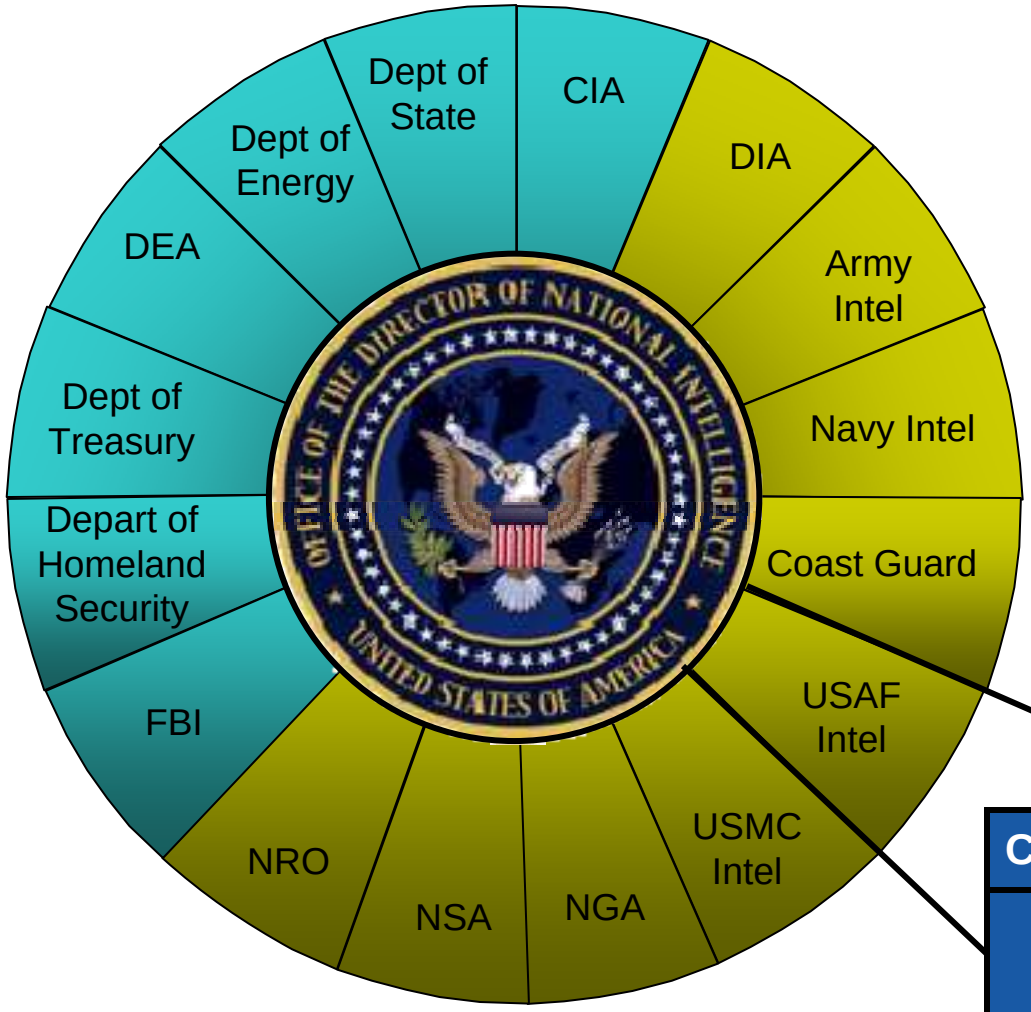
**This Briefing is:**

**UNCLASSIFIED//FOUO//**

# Overview

- Background
  - Intelligence Community
  - NASIC Data Exploitation History
- NASIC GEOINT/AGI Missions
- NASIC MASINT Missions
- Contract Support
- Acquisition Strategy – Past & Present
- Contacts

# Intelligence Community Overview




UNITED STATES INTELLIGENCE COMMUNITY

U.S. AIR FORCE

**Chain of Command**

**AF/A2**
**AF ISR Agency**
**NASIC**

**= Non-DoD**

**= DoD**

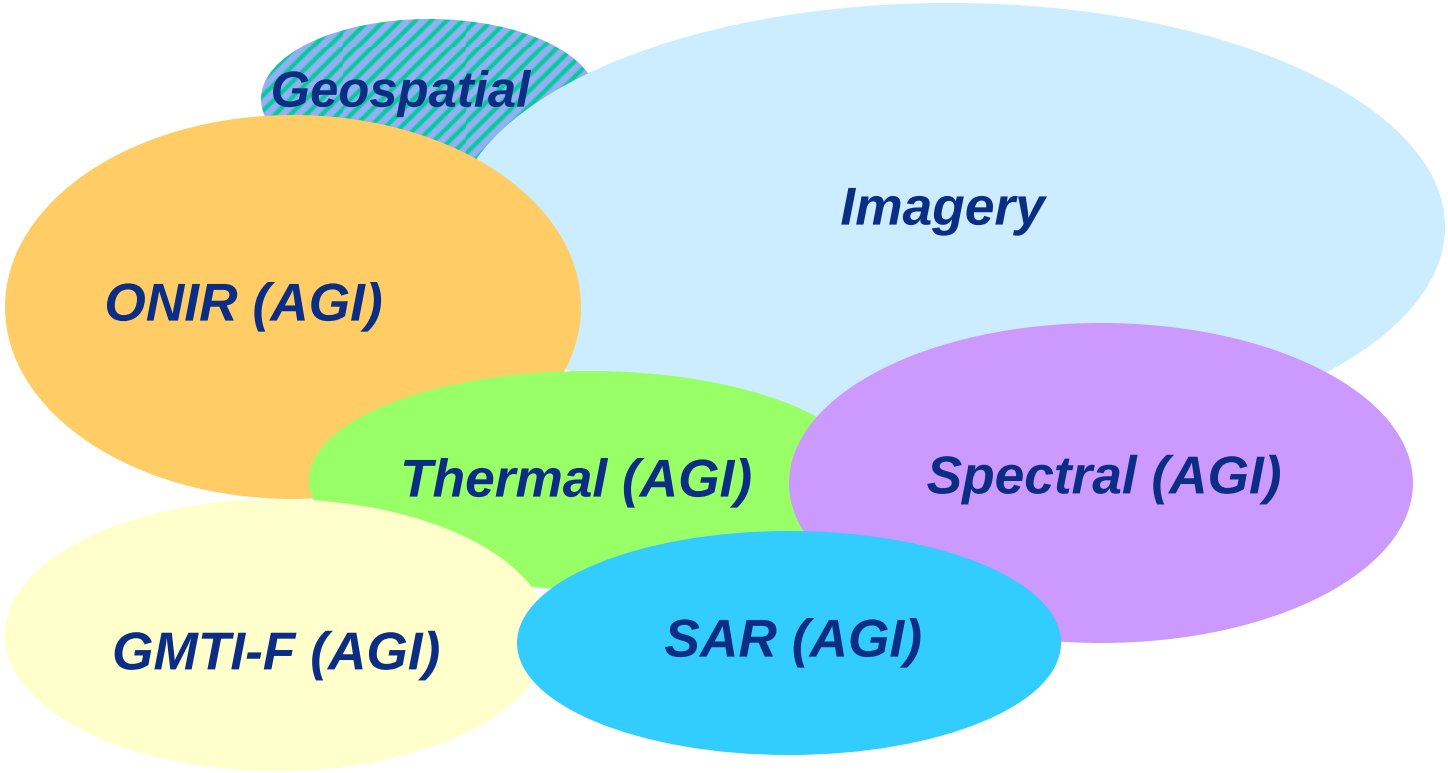
# National Air & Space Intelligence Center
## Data Exploitation History 1917-1970

- AF Service Intelligence Center (SIC)
  - Emphasis on Scientific & Technical Intelligence
- Data Exploitation Center
  - Large data infrastructure
- Leader in developing algorithms, tools and data exploitation processes
  - SIGINT
  - OSINT
  - MASINT
  - IMINT

# National Air & Space Intelligence Center
## Data Exploitation History 1970-Present

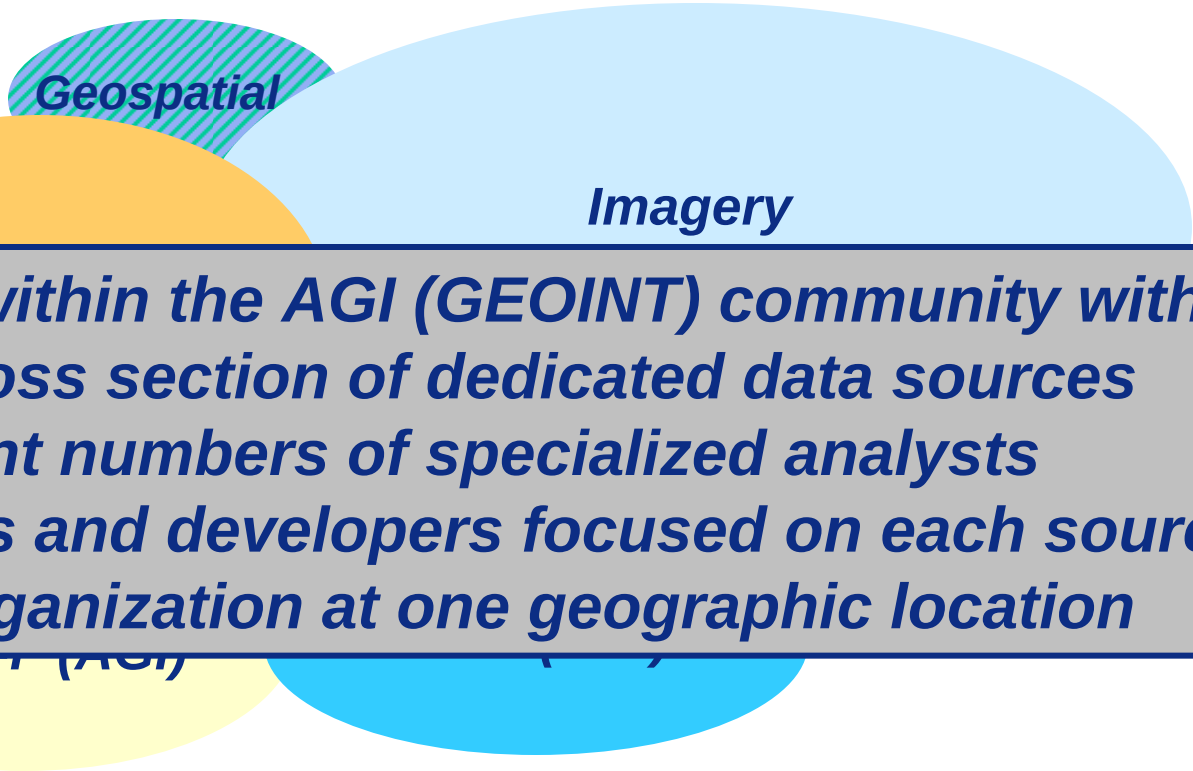
- **Defense Intelligence Agency (DIA) MASINT Executive Agent**
- **National Geospatial-Intelligence Agency (NGA)**
  - **Imagery Derived MASINT- Advanced Geospatial Intelligence (AGI)**
  - **Air Force Tech Sensor Program - MASINT**
- **DIA Executive Agent & NGA National Center of Excellence**
  - **Tasking, Processing, Exploitation & Dissemination (TPED)**
    - **AGI & MASINT**
    - **~ 600 Personnel**

# NASIC GEOINT Missions
## AGI Sub-disciplines



# NASIC GEOINT Missions

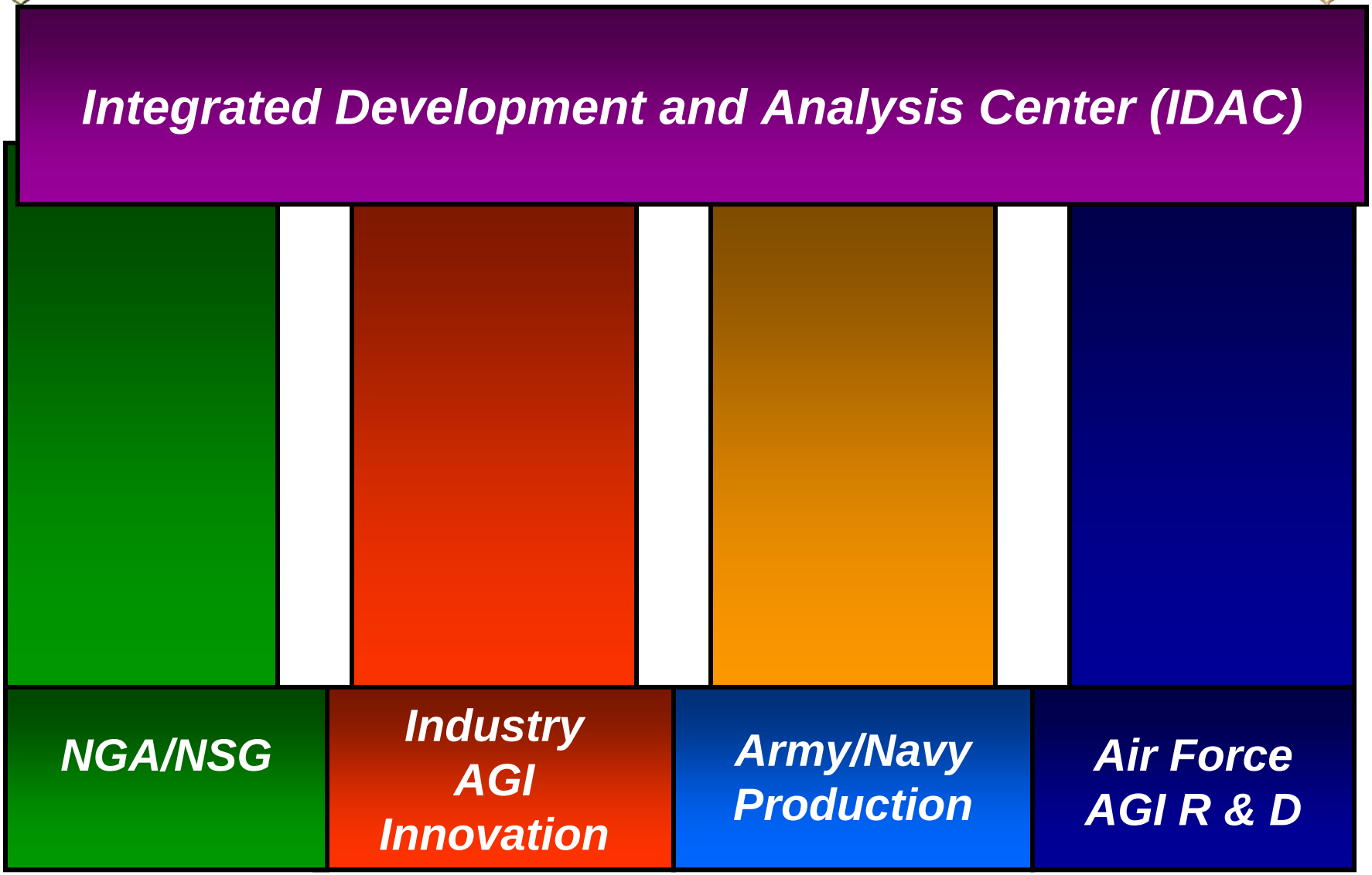
## AGI Sub-discipline



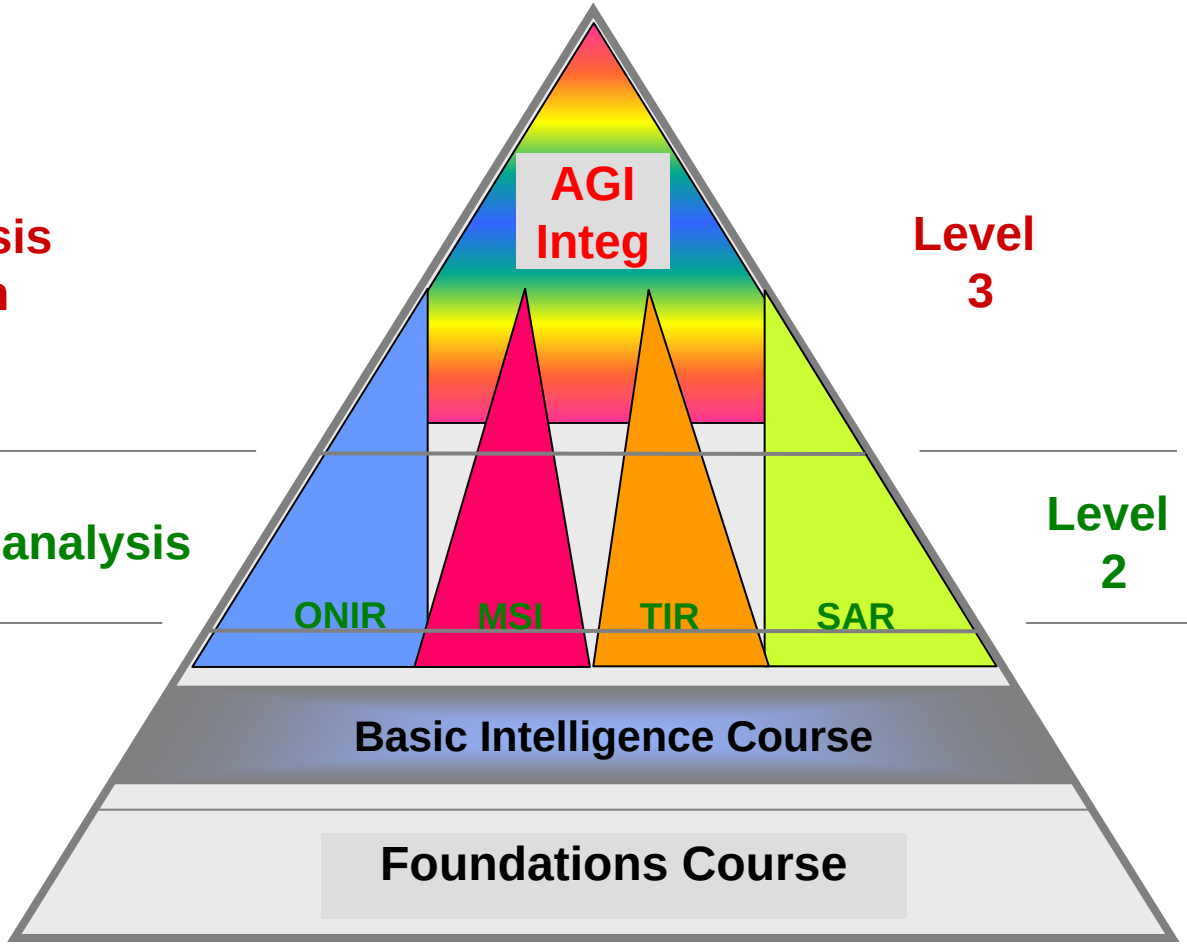

***Lead Center within the AGI (GEOINT) community with:***

- ***Broad cross section of dedicated data sources***
- ***Significant numbers of specialized analysts***
- ***Scientists and developers focused on each source***
- ***Single organization at one geographic location***

# Dayton GEOINT Enterprise

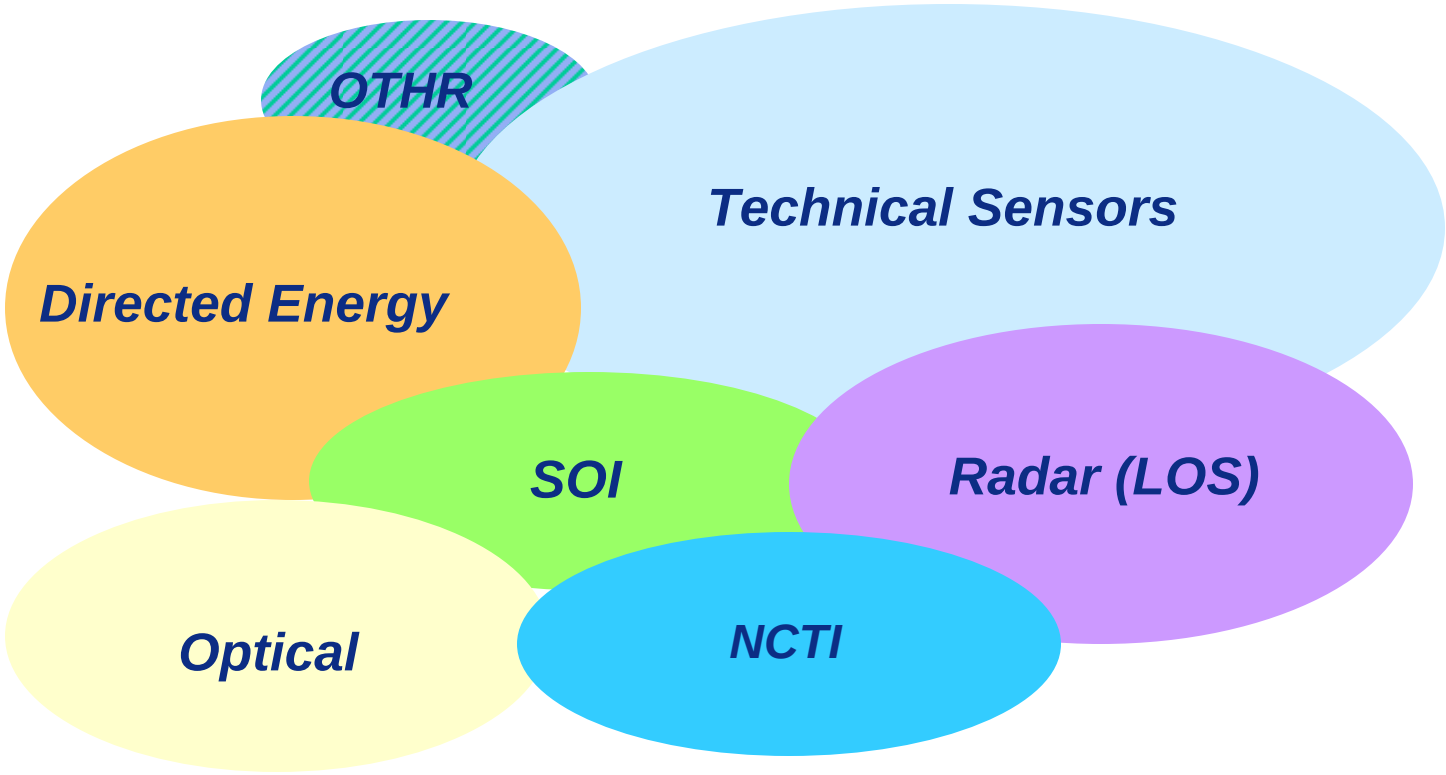


# AGI Analyst Certification Model

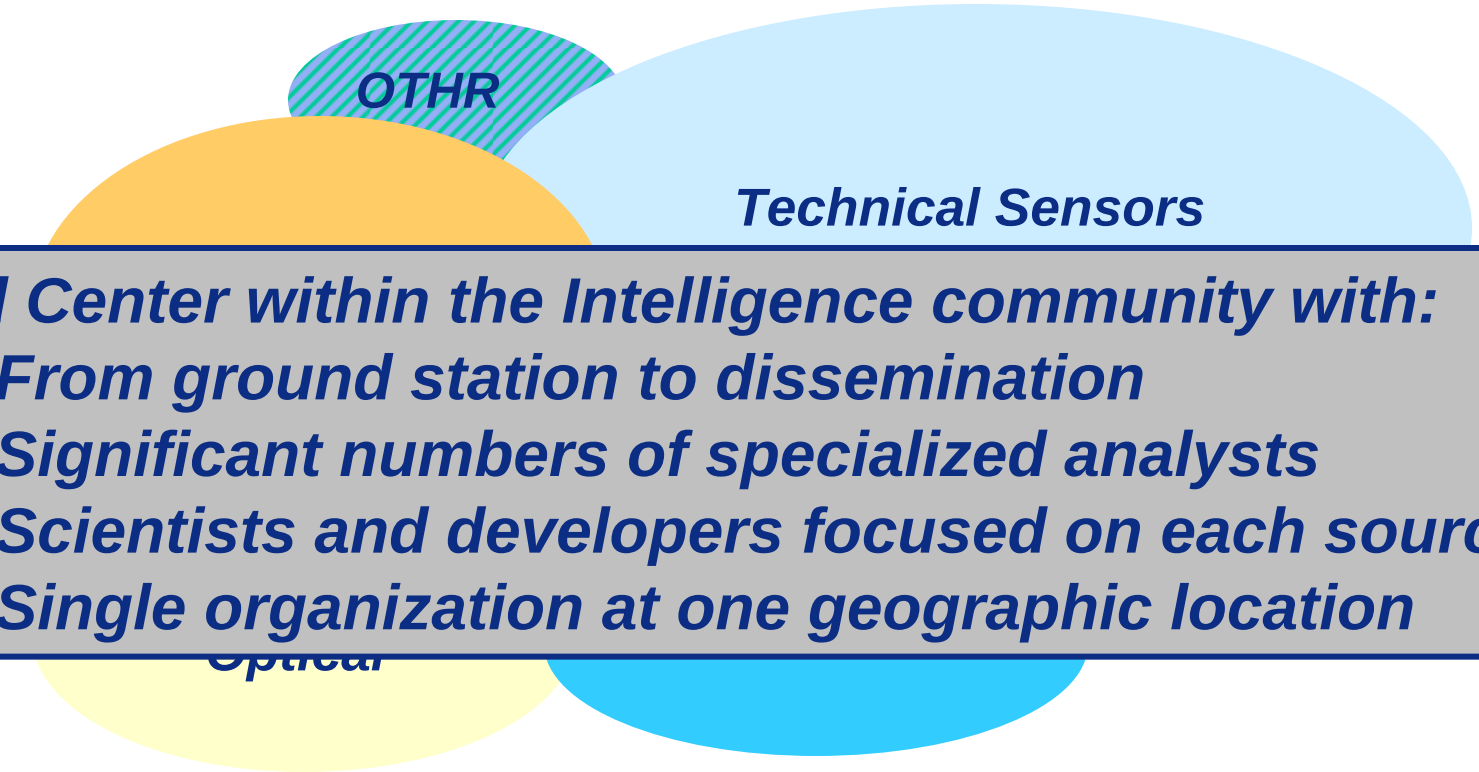


# NASIC MASINT Missions

## Today



# NASIC MASINT Missions
## Today




***Lead Center within the Intelligence community with:***

- ***From ground station to dissemination***
- ***Significant numbers of specialized analysts***
- ***Scientists and developers focused on each source***
- ***Single organization at one geographic location***

# WPMDC

## *Wright-Patterson MASINT/AGI Development Consortium*

- **Basis for Formation**
  - **AFIT, AFRL, and NASIC share complementary MASINT/AGI capabilities development activities**
  - **All located at WPAFB**
  - **Each pursuing leading edge technology for future MASINT/AGI**
- **Research, Thesis & Dissertation**
  - **Lecture series & workshops**
  - **SOCHE**
- **Goals:**
  - **Increase MASINT/AGI collaboration**
  - **Create cadre of MASINT/AGI expertise**
  - **Improve remote sensing & data exploitation for MASINT/AGI**

# Current Contract Support

- **Research & Development**
  - **Tasking, Processing, Exploitation, Dissemination (TPED) on AGI and MASINT data and products**
    - **Develop TPED processes, systems and Tools/Capabilities**
    - **Advanced understanding of phenomenology related to AGI and MASINT disciplines**
- **Production**
  - **Data processing and data exploitation on AGI and MASINT data and products**
    - **Assist in production of ~ 60,000 products per year**
- **Perform "Capability Provider" role**
  - **Fundamental NASIC policy: move TPED capabilities forward to the users and their systems**

***Enabling Intelligence Production***

# Acquisition Strategy

| | Past | Future |
|---|---|---|
| Competition | Full & Open | Full & Open |
| Ceiling | $420M | $500M |
| Duration | 8 Years | 6 Years |
| Award | Dual | Anticipate Multiple |
| Delivery Terms | IDIQ | IDIQ |
| Cost Terms | Time & Materials<br>Cost Reimbursement | Time & Materials<br>Cost Reimbursement<br>CPFF & CPIF |
| Performance | Prime plus team capable in all areas | Prime plus team capable in all areas |
| Start | | 1 Quarter FY09 |

# For Additional Information

- **All MASINT/AGI Program Contract Information will be posted on PIXS (ASC's Preaward Information eXchange System)**

  **https://www.pixs.wpafb.af.mil/**

  - **Scroll down to "Measurement and Signature Intelligence/Advanced Geospatial Intelligence (MASINT/AGI) Program Solicitation Number FA8633-07-R-2600"**

- **PIXS can also be reached from the Federal Business Opportunities (Fed Biz Opps) website**

  **http://www.fbo.gov/**

  - **Type in "MASINT/AGI" to get to PIXS page**

# *Questions?*

# Back up slides

# Data Exploitation Definitions

- *Time Dominant Exploitation (TD):* **Rapid and generally automated exploitation and reporting with adequate human intervention to produce actionable intelligence. This activity ranges from data processing to initial data interpretation to data posting for rapid dissemination/access across the community. It supports current intelligence issues and threats, warning/combat/crisis operations, and cueing other intelligence collectors. TD is typically is performed on the operations floor and is single-INT; however, in some cases the summary reporting can be multi-INT.**
- *Time Constrained/Content-Centric Exploitation (TC3):* **Timely data exploitation combined with more human analysis and interpretation than TD to produce actionable intelligence. The quality of the observable estimates is more accurate than TD reporting. TC3 supports combat/crisis operations and strategic policy decisions. TC3 may require some specialized physical sciences-centric knowledge of GEOINT phenomenology. TC3 can be single-INT, multi-source, and/or multi-INT.**
- *Content Dominant Exploitation (CD):* **Comprehensive signature and metric analysis of complex data sets. CD supports combat/crisis operations, policy/system acquisition decisions, and/or enhancement of collection sensors and exploitation tools/algorithms. In addition to providing content (i.e. analysis of the event or scene), it also provides context (e.g. trends or background information) and is an input to research and development to create new tools and algorithms. CD often requires highly specialized physical sciences-centric knowledge of GEOINT phenomenology. It is almost always a multi-INT product when other data is available.**

# AGI is based on Analysis of Non-literal Images

- **Literal**
  - You can see the object
  - You can generally study the shape or form and size of objects as a means to classify, characterize or identify

- **Non-literal**
  - You are generally interested in all of the information that comprises a pixel
  - You use science and engineering to extract information from a single or a few pixels