


IARPA Video LINGS

Capabilities Overview

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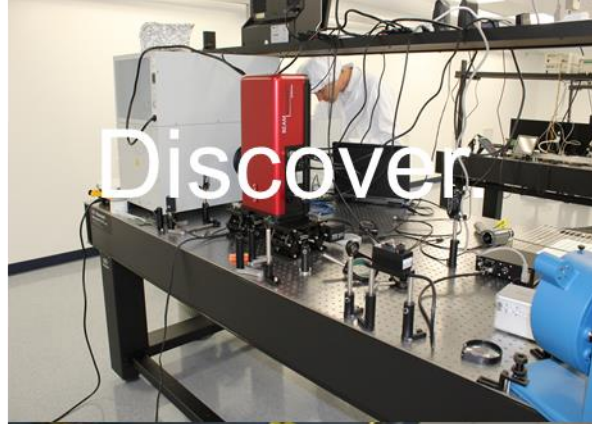


EXCELLENCE

- An **integrated innovation engine** that provides exceptional value
- A multi-disciplinary, **world-class workforce** that solves problems in original ways
- **Ethical, professional, client and problem focused**

CORE COMPETENCIES

- Detecting weak signals in heavy clutter with **low false alarms**.
- **Low-SWaP sensors** with real-time fusion for multiple domains
- **Merging AI with Physics-based domain understanding**
- **Extracting maximum performance from systems**



Overview

DESCRIPTION

- Employee-Owned w/ Small Business status
- 350 employees, 70% w/ advanced degrees
- Eight Locations: AL, AZ, CA, CO, FL, VA: six SCI or TS capable
- 250K sq.ft. lab/office/production capacity; QMS is AS9100/ISO-9001 Certified.
- > 40 years of government experience

APPROACH

- **Rapid, creative, end-to-end development**
- **Discover:** A science and technology engine advancing state-of-the-art sensing: over 40 patents in force; 30+ Active SBIRs
- **Develop:** A responsive collaborator rapidly maturing prototype system solutions for new and existing sensors
- **Deliver:** Reliable producer of high-performance systems; typically low-SWaP

Northridge, CA (HQs)

San Diego, CA

Longmont, CO

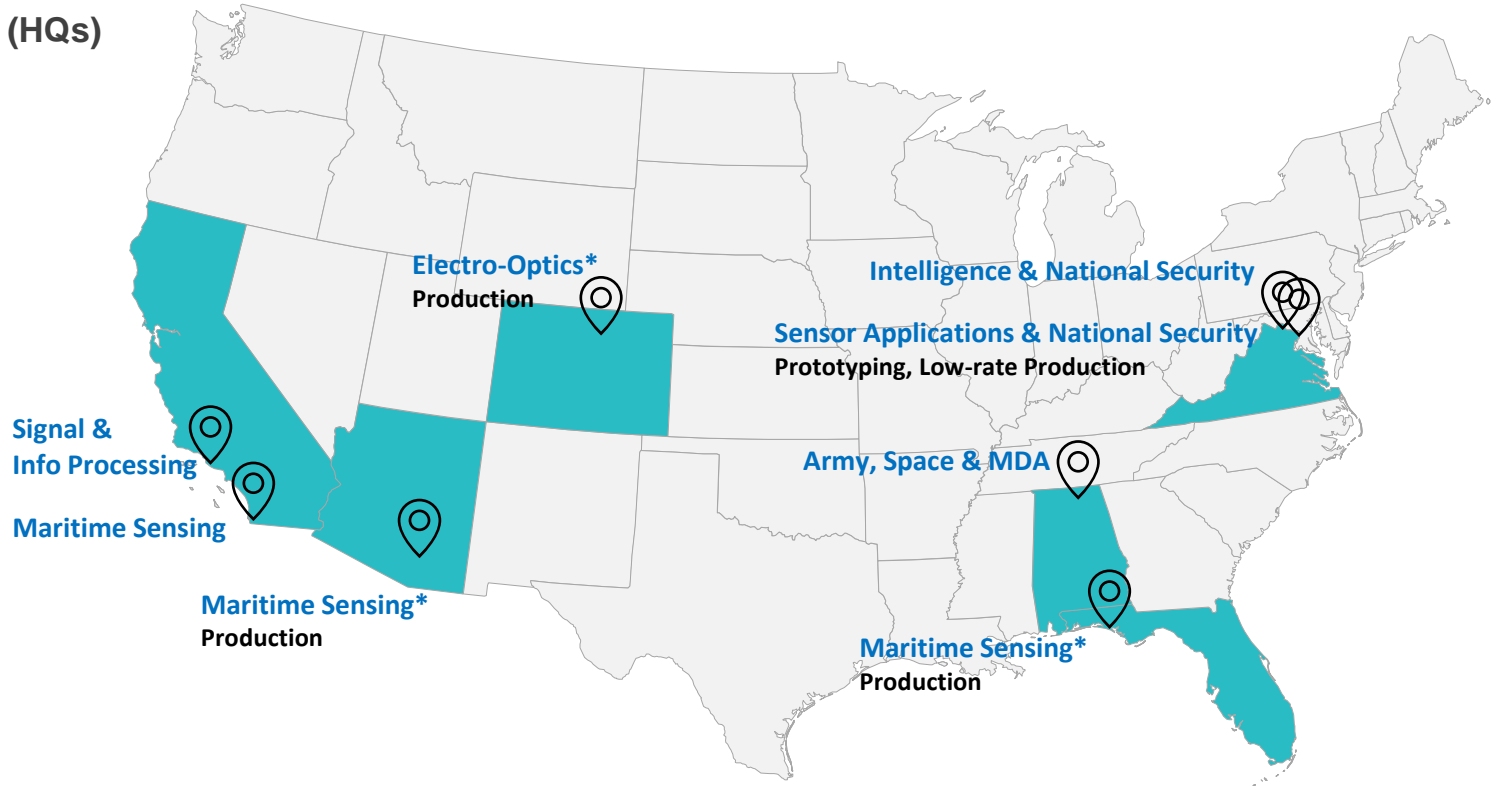
Tucson, AZ

Valparaiso, FL

Huntsville, AL

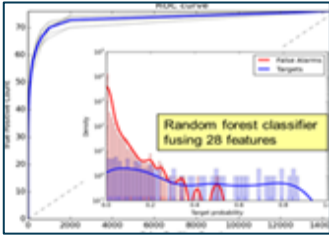
Chantilly, VA

Arlington, VA



* AZ, FL, CO Locations: Quality Management System (QMS) is AS9100D & ISO-9001 Certified

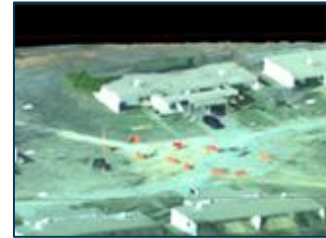




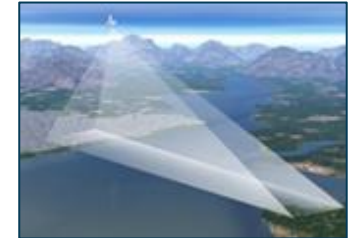
Artificial Intelligence



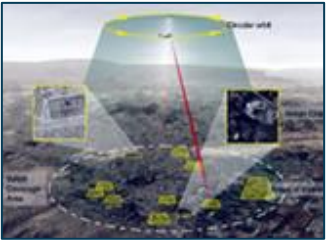
Low Size, Weight, Power Sensors



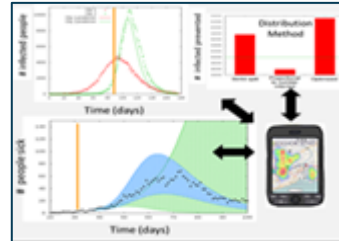
Real-Time Processing



Remote Sensing



Deep Analytics



Networked Surveillance



Weak Signals Intelligence Applications



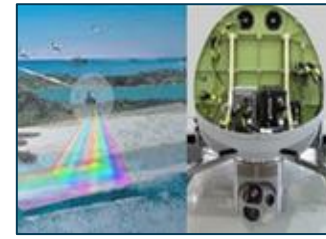
Models and Simulation



Field Tests & Measurements



Rapid Prototyping



System Integration



Production

- Currently have capabilities in
 - Deep Learning predictive analytics applicable to Re-identification
 - Future pose in hypothetical sensor
 - Likelihood of future georeferenced location
 - Track kinematic trajectory analysis for subtle behavior identification
 - Pairwise behavior extractions give indication between object interactions and intent
 - Maintaining object custody between locations, sensors, and modalities
 - Software for real-time target tracking and kinematic extractions
- Seeking teaming with complementary capabilities in
 - Systems Integration
 - Transportation Science
 - Agent-based Modeling
 - Truthed video data collection and annotation