

Special Operations Forces



Industry Conference

Product Line Manager - SIGINT

SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION



Joint Threat Warning System (JTWS)

- Signals Intelligence (SIGINT) And Precision Geo-Location For Ground, Air, And Maritime Applications

Acquisition Strategy

- Spiral Development And Evolutionary Technology Insertions

Period of Performance

- In Sustainment, Continuous Capital Equipment Replacement

Milestones

- Post-Milestone C, Sustainment And Capital Equipment Replacement

Point of Contact

- (813) 826-7486

Funding

- FY12: \$72.2M
- FY13: \$62.8M

Current Contract/OEM

- Multiple - Contact TILO



SIGINT Product Line Manager Responsibilities

- **Develops, Integrates, And Tests SIGINT Solutions For Users**
- **Provides Technical Conduit Between Users And Programs of Record**
- **Maintains SIGINT Capability Based Assessment Of Current Operational Systems**
- **Collaborates With Users To Forecast Technology Requirements**
- **Continuously Surveys The Market To Monitor State Of-The-Shelf Technologies**



Technology Areas of Interest

- **Improved Direction Finding (DF) And Geo-location (GEO) Antenna Arrays (Airborne/Maritime/Mobile/Body Worn)**
- **Networked Tactical SIGINT Systems**
- **Lightweight, Adaptable Tactical SIGINT Systems**
- **Exploit Modern Communication Systems**
- **Unmanned Aerial System Payloads**



What We Need From Industry

- **Improved DF and GEO Antenna Arrays**
 - **Current State Of The Technology**
 - » Bulky, Narrowband, Limited-Accuracy DF Antennas
 - **Ongoing Efforts**
 - » Phased Array And Beam-Steering Antennas; Body-Wearable DF
 - **Where We Want To Be**
 - » Wideband High-Gain Antenna Systems; Flexible Multi-Platform High-Accuracy DF And GEO Antenna Systems; Body-Wearable, Concealable DF Antennas; All-Azimuth/Elevation
 - **Potential Game Changers**
 - » Phase-Coherent DF Systems; Beam-Steering Antenna Design; T/FDOA Signal Measurements



What We Need From Industry

- **Networked Tactical SIGINT Systems**
 - **Current State Of The Technology**
 - » Techniques For Collaborative DF And Geo-Location Operations
 - **Ongoing Efforts**
 - » Networking Concepts And Devices To Communicate Between Tactical SIGINT Operators
 - **Where We Want To Be**
 - » DF And Geo-Location Of Signal Sources Using All Available Overhead, Air, Maritime And Ground SIGINT Assets
 - **Potential Game Changers**
 - » Lightweight VHF-UHF Mesh Networking Radios; Miniature Communications Devices; JICD 4.0 Collaborative Geo-Location Messaging; Time/Frequency Difference Of Arrival (T/FDOA) Sensors; Geo-Location Algorithms



What We Need From Industry

- **Lightweight, Adaptable Tactical SIGINT Systems**
 - **Current State Of The Technology**
 - » Heavy, Power-Hungry, Inflexible Products; Focused Use
 - **Ongoing Efforts**
 - » Reduce Equipment Size, Weight And Power (SWAP); Expand Platform Integration; Versatile HW/SW
 - **Where We Want To Be**
 - » Common Low-SWAP Adaptable SIGINT Equipment
 - **Potential Game Changers**
 - » Miniature T/FDOA-capable Receivers; Versatile Antenna “Toolkits”; Low-Profile And Body-Wearable DF Antennas; Flexible Industry-Standard Equipment Interfaces And Software Applications



What We Need From Industry

- **Exploit Modern Communications Systems**
 - **Current State Of The Technology**
 - » **Collection, Exploitation Of Current Communications Signals**
 - **Ongoing Efforts**
 - » **Develop Collection And Exploitation Techniques For New Emerging Systems**
 - **Where We Want To Be**
 - » **Worldwide Collection And Exploitation Of Advanced Communications Systems**
 - **Potential Game Changers**
 - » **Advanced Signal Processing Algorithms; Demodulation And Decryption Techniques; Versatile, Wideband Tactical SIGINT Systems**



What We Need From Industry

- **Unmanned Aerial System Payloads**
 - **Current State Of The Technology**
 - » One Platform Payloads, Inflexible Products; Focused Use
 - **Ongoing Efforts**
 - » Reduce Payload Size, Weight And Power (SWAP); Expand Platform Integration; Versatile HW/SW
 - **Where We Want To Be**
 - » Common Low-SWAP Adaptable SIGINT Equipment
 - » Same Payload That Is Adaptable Across Multiple Platforms
 - **Potential Game Changers**
 - » Miniature T/FDOA-capable Receivers; Versatile Antenna “Toolkits”; Integrated SIGINT & FMV payloads

A grayscale, high-contrast image of a globe showing the Americas. The image is centered on the continent of North America, with the Atlantic Ocean to the east and the Pacific Ocean to the west. The globe is rendered in a dark, almost black color, with the landmasses appearing as bright, white outlines. A grid of small, white circles is overlaid on the lower portion of the globe, resembling a grid of latitude and longitude lines. The word "Questions?" is written in a bold, black, sans-serif font in the center of the image.

Questions?