Special Operations Forces

Industry Conference

Program Manager
– Intelligence Systems

SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION
Operating Structure

Programs/Program Managers

- PM Intel
- PM Special Recon & Surveillance
- PM Sensitive Site Exploitation
- PM MILDEP Special Recon & Surveillance
- PM Rapid Capability Insertion

PEO

DPEO

Business Manager

Forward Support & Integration

Engineering & Technical Services

Testing & Evaluations

Architecture & Plans

Deputy PM Tags

Deputy PM Sensors

Deputy PM Biometrics & Forensics

Deputy PM Special Comms

Deputy PM Technical Support Systems

Deputy PM TENCAP Tools

Deputy PM PED Tools

Deputy PM SIGINT Tools
Joint Threat Warning System (JTWS)

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

**Acquisition Strategy**
- Spiral Development & Evolutionary Technology Insertions

**Period of Performance**
- In Sustainment, Continuous Capital Equipment Replacement

**Milestones**
- Post-Milestone C, Sustainment & Capital Equipment Replacement

**Point of Contact**
- (813) 826-7486

**Funding**
- FY12: $72.2M
- FY13: $62.8M

**Current Contract/OEM**
- Multiple - Contact TILO
JTWS Family Of Systems

JTWS

JTWS Ground SIGINT Kit (GSK)

JTWS Air

JTWS Maritime

JTWS Team Transportable

Air (UAV/UV)

RDT&E

JTWS SIGINT Payload Systems Developed/Fielded In Conjunction With SORDAC PEO Fixed Wing

Joint Threat Warning System Component Architecture and Framework (JCAF)

SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION
Distributed Common Ground System For Special Operations Forces (DCGS-SOF)

- Operates As Part of Defense Intelligence Information Enterprise & SOF Information Enterprise
- Provides Framework, Data, Services & Applications For SOF Garrison/Deployed Processing Exploitation Dissemination, Advanced Analytics & SOF ISR Enterprise

### Acquisition Strategy
- Partner With SIE & Intelligence Community & DCGS Family Of Systems Programs Of Record; Evolutionary Technology Inserts

### Period of Performance
- Project Dependent

### Funding
- FY12: $33.9M
- FY13: $44.1M

### Milestones
- Milestone C For Enterprise; Sustainment & Capital Equipment Replacement For SIGINT & Full Motion Video PED

### Current Contract/OEM
- Multiple - Contact TILO

### Point of Contact
- (813) 826-7443
Special Operations Forces Planning, Rehearsal, Execution Program (SOFPREP)

- Provides Generation Of Legacy & Common Databases In Support Of SOFPREP (Data Management) Systems

**Acquisition Strategy**
- Evolutionary Technology Insertions

**Period of Performance**
- In Sustainment, Continuous Capital Equipment Replacement

**Funding**
- FY12: $5.8M
- FY13: $6.9M

**Milestones**
- Post-Milestone C, Sustainment & Capital Equipment Replacement

**Current Contract/OEM**
- Multiple - Contact TILO

**Point of Contact**
- (813) 826-7478
## Integrated Survey Program (ISP)
- Technical Surveys & Multi-Media Production

### Acquisition Strategy
- Evolutionary Technology Insertions

### Period of Performance
- In Sustainment, Continuous Capital Equipment Replacement

### Funding
- **FY12:** $1.3M
- **FY13:** $1.4M

### Milestones
- Post-Milestone C, Sustainment & Capital Equipment Replacement

### Current Contract/OEM
- Multiple - Contact TILO

### Point of Contact
- (813) 826-7478
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
Technology Areas of Interest

- Data Discovery And Enrichment In Support Of Intel Analysis
- Advanced Data Management Systems
- Network Multi-Level/Cross Domain Security Services
- Full Motion Video/Motion Imagery (FMV/MI) Exploitation
- Multi-Intelligence Fusion And Correlation
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
What We Need From Industry

• Advanced Data Management Systems

  • Current State Of The Technology
    » Relational Data Base Management Systems (RDBMS)
    » XML Databases
    » Object-oriented Databases

  • Ongoing Efforts
    » SIDMS

• Where We Want To Be
  » Enable The Effective/Efficient Management Of Unstructured Data
  » A Distributed Data Management System That Reduces The Overhead And Complexity Of Current RDBMS

• Potential Game Changers
  » Advanced XML Databases At A Maturity Level Of RDBMS
What We Need From Industry

• Network Multi-Level Security/Cross Domain Security Services
  • Current State Of The Technology
    » Cross Domain Solutions Are Complex, High In Cost, And Lack Operational Flexibility In Addressing User Needs
  • Ongoing Efforts
    » Evaluating Solutions –E.G., Trusted Virtual Environment (TVE)
  • Where We Want To Be
    » Enable SOF Users To Exchange Information, Collaborate On-Demand, And Utilize SOF Required Applications Between Security Domains
  • Potential Game Changers
    » Certified/Accredited Classification Labels To Unstructured Data Types
    » Flexible And Robust Algorithms That Enable Current Cross Domain Guards To Support Complex Data Types
What We Need From Industry

• Full Motion Video (FMV) Exploitation
  • Current State Of The Technology
    » Human Analysis, Few Automated Tools
  • Ongoing Efforts
    » High Definition (HD) FMV Upgrades To PED Cells
    » Content/Semantic Based Search Capabilities
    » Change /Activity/Object Detection Within FMV Files To Support Video Processing, Exploitation, Dissemination (PED) Processes
  • Where We Want To Be
    » Enable Detection of Objects and Activities Of Interest Within Real-Time and Archival Video
  • Potential Game Changers
    » Object/Activity Auto-Tagging In High Definition Video
What We Need From Industry

- Multi-Intelligence Fusion And Correlation
  - Current State Of The Technology
    » Multi-INT Data Collections Using Single-INT Stove-Piped Systems And Processes—Limited Post-collection Fusion
  - Ongoing Efforts
    » Support To SENSORWeb Joint Capability Technology Demonstration (JCTD)
  - Where We Want To Be
    » Improve Target Geo-Location/Identification Accuracy, Confidence And Speed
    » Enable Cross Cueing Of Intelligence, Surveillance, And Reconnaissance (ISR) Collection Assets – SENSORWeb Capability
- Potential Game Changers
  » Automated, Real-Time Detection, Identification, And Geo-location Of Target Of Interest, Auto-Project/Predict Movements
  » Cloud-to-Cloud Communications
  » Stand-Alone All Source Intelligence Fusion (ASIF) capability
Questions?