

Special Operations Forces



Industry Conference

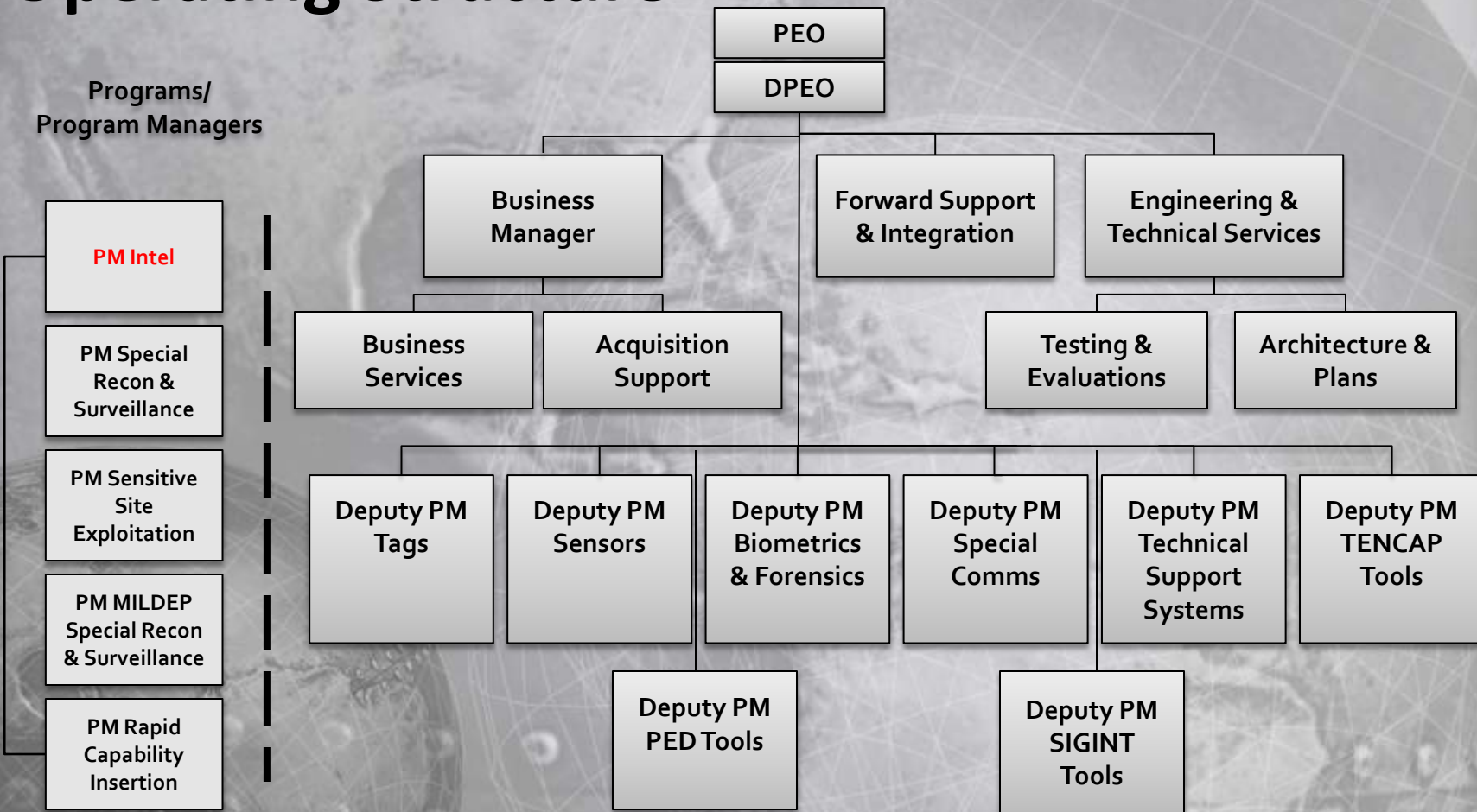
Program Manager
– Intelligence Systems



SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION



Operating Structure





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

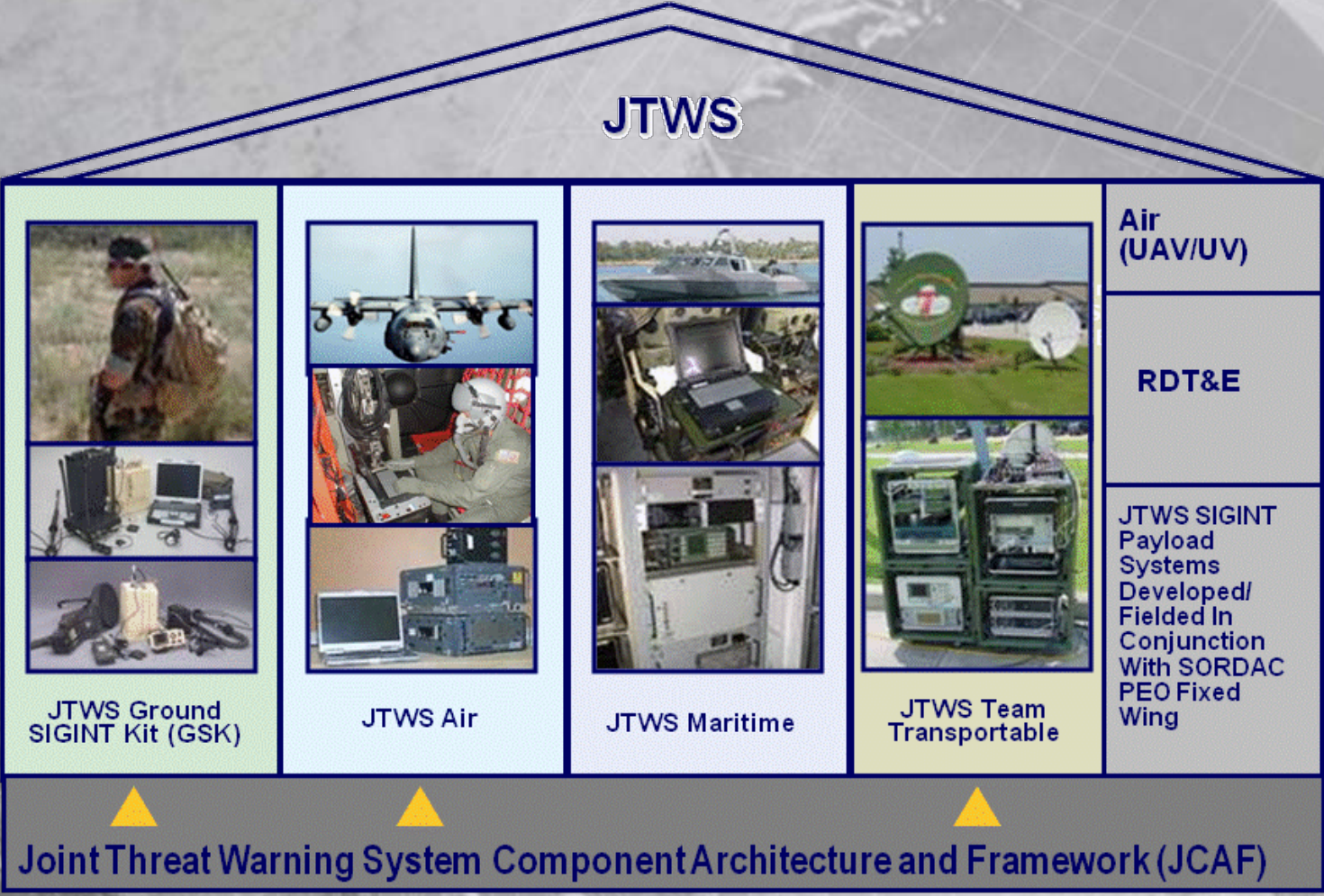
Funding

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

Current Contract/OEM

- Multiple - Contact TILO

JTWS Family Of Systems



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

Milestones

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

Point of Contact

- (813) 826-7443

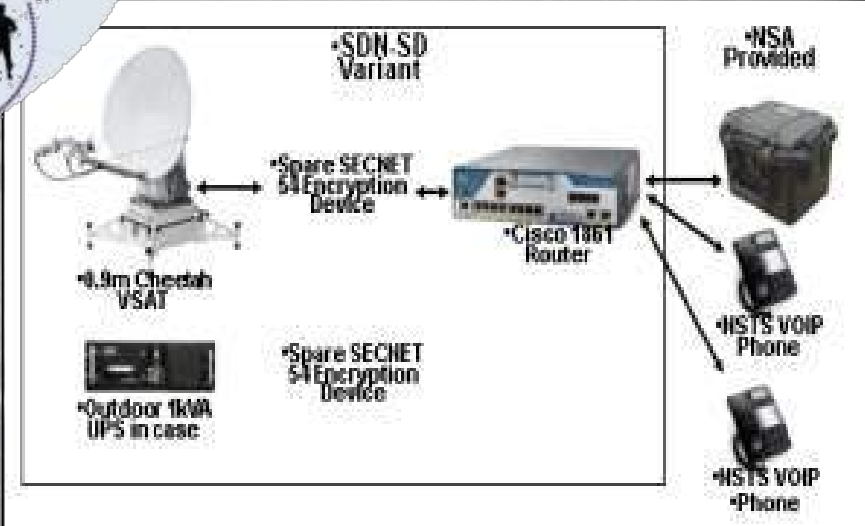
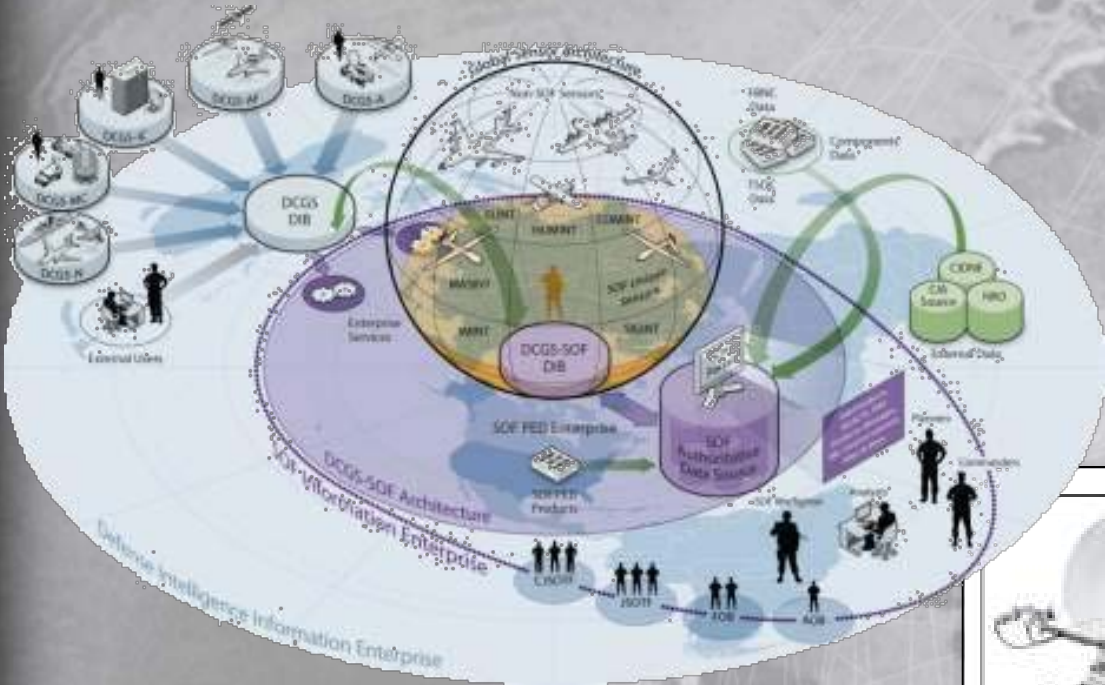
Funding

- FY12: \$33.9M
- FY13: \$44.1M

Current Contract/OEM

- Multiple - Contact TILO

DCGS-SOF



Silent Dagger

SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION





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

Milestones

- Post-Milestone C, Sustainment & Capital Equipment Replacement

Point of Contact

- (813) 826-7478

Funding

- FY12: \$5.8M
- FY13: \$6.9M

Current Contract/OEM

- Multiple - Contact TILO



Integrated Survey Program (ISP)

- Technical Surveys & Multi-Media Production

Acquisition Strategy

- Evolutionary Technology Insertions

Period of Performance

- In Sustainment, Continuous Capital Equipment Replacement

Milestones

- Post-Milestone C, Sustainment & Capital Equipment Replacement

Point of Contact

- (813) 826-7478

Funding

- FY12: \$1.3M
- FY13: \$1.4M

Current Contract/OEM

- Multiple - Contact TILO



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?