

Special Operations Forces



Industry Conference

Director Science & Technology
Directorate

SCIENCE & TECHNOLOGY



Agenda

- **S&T Funding**
- **Special Operations Advanced Technology Collaborative (SOATC)**
- **S&T Needs**
- **Technical Experimentation & Request For Information (RFI)**
- **S&T Broad Agency Announcements (BAAs)**

SCIENCE & TECHNOLOGY



Applied Research (BA2) and Advanced Technology Development (BA3)

- **BA2**
 - TRL 3-5
 - Studies, early lab hardware, software development models
- **BA3**
 - TRL 5-7
 - Prototypes, demonstrations

Acquisition Strategy

Various (competition, IDIQ, CRADA, etc.)
Leverage External Acquisition (Services, Labs, OGA)

Period of Performance

Project dependent: SORDAC-ST is putting increased interest on 'revolutionary' technology development efforts

Milestones

Project dependent

Point of Contact

SORDAC-ST

Funding

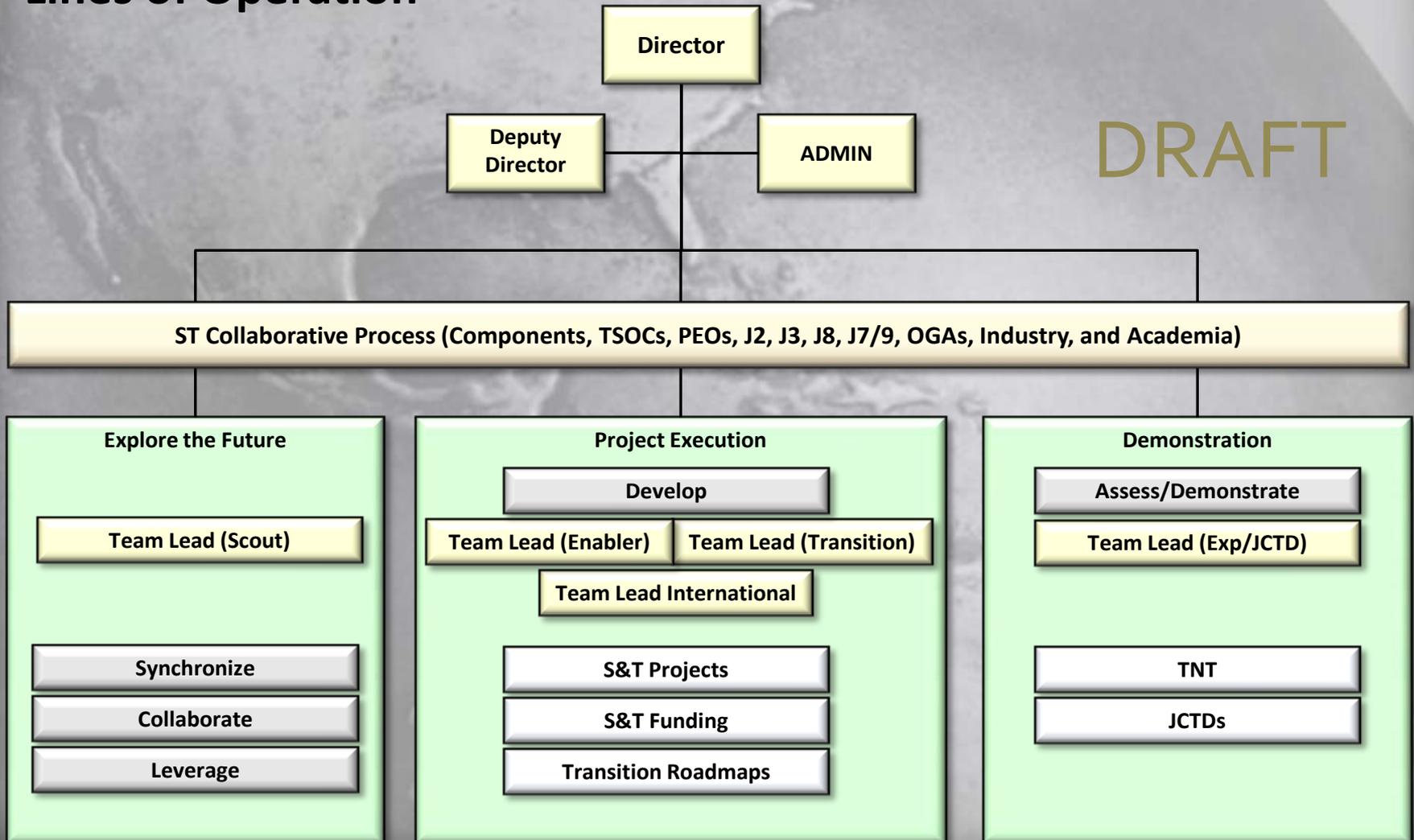
FY12: \$39.646M
FY13: \$30.163M

Current Contract/OEM

Various

Special Operations Advanced Technology Collaborative (SOATC)

Lines of Operation





Opportunity Areas

- **Signature Management**
- **Warrior Systems**
- **Human Performance**
- **Mobility**
- **C4**
- **Power & Energy**

Signature Management

- **Multispectral signature reduction for the SOF operator and his equipment in all environments**
- **Radar cross-section**
- **Visual, Near IR, Shortwave IR, Midwave IR, Longwave IR**
- **Acoustic**



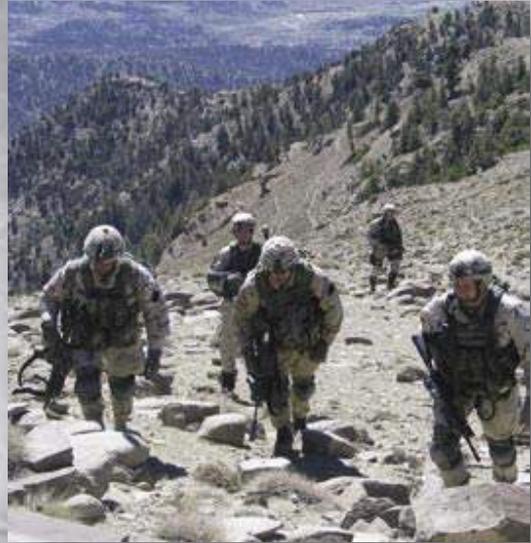
Warrior Systems

- Reduced SWaP & cost
- Advanced materials for armor and weight reduction
 - Reduced weight & cost with increased ballistic performance
 - Transparent & opaque (flat & curved)
- Scalable Effects Weapons (SEW)
 - Personnel Incapacitations with Duration
 - Vehicle / Vessel Stopping
 - Clearing a Facility Remotely
 - Area Denial / Objective Isolation
- Digital solution to night vision devices
- Fusion
 - Multiple bands to enhance lethality and situational awareness
 - Simple and intuitive presentation without loss of content/context
 - Real-time, low power computing and displays
 - Data import and export



Human Performance Program (HPP)

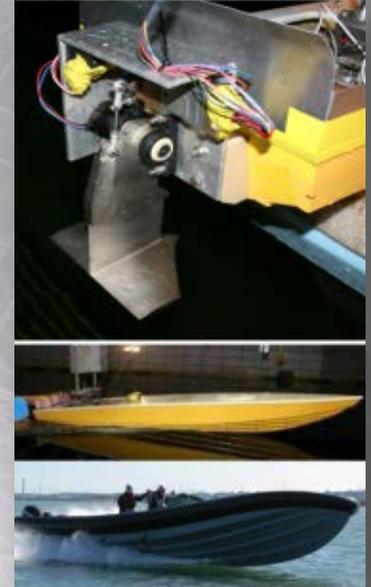
- Improved performance for the SOF Warrior Athlete
- Novel ideas for Rehabilitation / Rehabilitation of SOF Operators
- Injury / degraded performance prediction and prevention
- Enhancing War-fighter physical / mental effectiveness
- Understanding of the Neuro-cognitive interface
- Physiological monitoring for mission effectiveness



Mobility

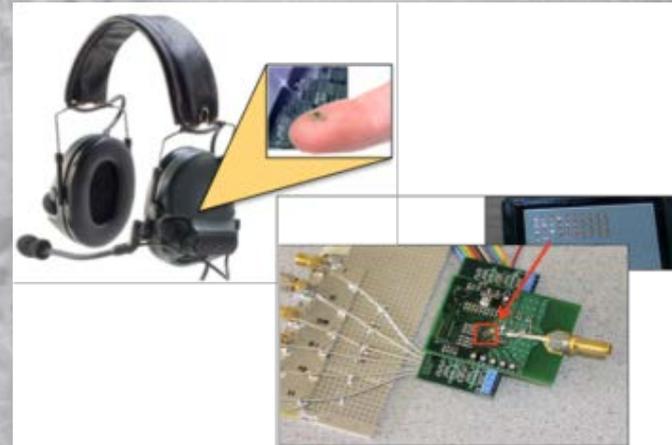
Go Anywhere, Undetected, and Return Safely

- **Enhanced Freedom of Maneuver**
 - Durability, speed, extended range
 - Occupant comfort, signature management
- **Improved Force Protection and Survivability**
 - Armor improvements
 - Active countermeasures
- **Improved Situational Awareness**
 - Sensors, 360° vision
 - Integrated bridge systems, secure communications



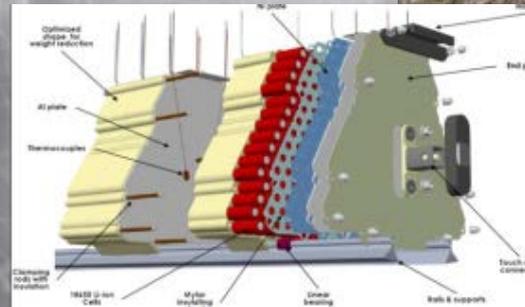
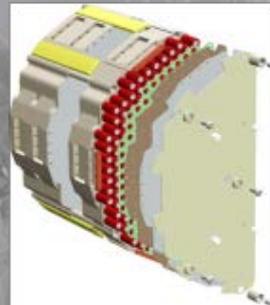
Command, Control, Communications, and Computers (C4)

- Miniature SATCOM antennas (Ka, Ku)
- Concealable / conformal embedded antennas
- Radio aware routing / cognitive rules
- Software defined Type I encryption for wireless devices
- Small logistical footprint BLOS communications
- Radio over Internet Protocol (IP)



Power & Energy

- Rechargeable greater energy density small batteries
- Man-portable energy storage and generating methods
- Multi-fueled engines
- Hybrid power
- Sustainable energy
 - Increased efficiency in photovoltaics
 - Fuel cells



Technical Experimentation

- Venue to rapidly assess, develop, counter & exploit emerging capabilities to address immediate warfighter needs
- Tactical Network Testbed Collaboration RFIs posted on www.fbo.gov
- Experimentation Venues
 - Camp Roberts CA, Avon Park FL, & Camp Atterbury IN
- Pay-Off
 - Opportunity for technology developers to interface with operational personnel
 - Identify solutions to high priority, high-value SOF mission deficiencies
 - Increased awareness of current technology maturity



S&T Broad Agency Announcements (BAAs)

- S&T BAA (expected 3rd QTR 12)
- Scalable Effects Weapons (SEW) BAA
- www.fbo.gov





Questions?

