AGENDA

• S&T Strategic Vision
• TDWG Process
• S&T RDT&E / TRLs
• BAAs / RFIs
• CRADAs
• S&T Needs
• S&T Programs / Funding
Provide Revolutionary Game Changing Technology to Reduce/Remove SOF Capability Gaps
ACHIEVING THE VISION

Paths/Processes

1. Understand the Gap
   - Priority
   - User/Customer
   - Mission Area

2. Tech Exploration
   - ID Existing Research
   - Determine Applicability
   - Evaluate Constraint
     - $$
     - Technology
     - Time
     - Authority

3. Strategy Development
   - ID Potential Partners
     - Tech Providers
     - Co-Users
     - Resources ($$/People)
     - Transition Path
   - Balance
     - Risk (Tech, $$, Time)
     - Reward (Value to SOF)
     - Impact (Breadth)

Products

OUTPACE THE ENEMY’S ‘OODA Loop’

X  Art of the Possible  =

Categorized Solution Set
Aligned to Component & TSOC Gaps

- High Priority/SOF Unique
- Co-Develop/Planned Improvement
- High Priority/Externally Funded
- Co-Develop Revolutionary

Products

We can’t do X that is:
- Mission Critical
- Mission Enhancing
- Game Changing

We’re Doing Y as a Work Around (Not Value Added)
- Substantial Mission Impact
- Substantial Resource Management
S&T – MOVING FORWARD

FOCUSED SOCOM
S&T PRIORITIES

Tech Insertion Process
Materiel Non-Materiel

Tech Scouting
- Government Developed
- DoD Industry Developed
- Academic Research
- Social Media
- Discovery Forums

Project Execution
- Applied Research
- Development
- Transition

Demonstration/Experimentation
- Technical Experimentation (TE)
- Exercises
- Open Challenges
- DoD Events

A Balanced Approach to Address SOF Needs Now and in the Future
TECHNOLOGY DEVELOPMENT WORKING GROUPS (TDWGs) TASK/PURPOSE

• Provide collaborative venue for stakeholders to express Science & Technology (S&T) priorities, monitor S&T project progress, and to distribute knowledge and outcomes
BEHAVIOR & EXECUTION

Command Prioritization

S&T GAPS
- Directed
- Derived
- PEO Roadmaps
- Tech Scouting

Continual Evaluation of Priorities

Status Monitoring

TDWG Deliverables
- Focus Areas of Interest
- Potential Tech Approaches
- Potential Partners
- Acquisition/Resourcing Strategies
- Transition Strategies/Paths
- Rank S&T Gaps/Problem Sets (Low, Med, High)

TDWGGs

Biometrics
Biomedical Optics
C4
Human Performance
Human Protection
Mobility
Power & Energy
Fires

Actions
- Annual S&T BAA
- Project Funding
- Portfolio Management
- Tech Scout Emphasis
- Tech Experimentation Focus
UNCLASSIFIED

TECHNOLOGY READINESS LEVEL (TRL)
Metric/measure used to assess the relative maturity of evolving technologies (materials, components, devices, etc.) prior to incorporating that technology into a system or subsystem.

- TRL 3-5
- TRL 5-7
- TRL 7+

POST MILESTONE B: ACQUISITION PROGRAMS OF RECORD

ST Budget Activity 2 (BA 2)
Applied Research
- Studies, investigations, and non-system specific technology efforts
- Systematic study to understand the means to meet a recognized and specific need short of system development
- Breadboard laboratory prototypes

ST Budget Activity 3 (BA 3)
Advanced Technology Development
- Development of subsystems and components and efforts to integrate them into system prototypes
- Proof of technological feasibility and assessment of subsystem and component operability and producibility
- Field experimentation and/or tests in a simulated environment

EXECUTABLE?

TCOF Unique?

Technically Feasible?
BROAD AGENCY ANNOUNCEMENTS/RFIs

- S&T, TALOS BAAs are focused on targeted capability gaps
- TE, TALOS, and Collaborative Planning Sessions RFIs
- Participate in OSD Rapid Innovation Fund (RIF) BAA
- USSOCOM/USAMRAA Biomedical Research and Development BAA
COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS (CRADAs)

• **What…**
  – Provide a mechanism for technology transfer
  – A legal document. No money can be exchanged.

• **Why we use them…**
  – Provide resources in support of non-federal entity RDT&E efforts
  – Allow non-federal entity to expend IR&D to support cooperative development
  – Save time and money
  – Increase communications and focus technology development

• **SOCOM S&T CRADAs…**
  – SORDAC-ST-12-01 Battelle Memorial Institute “S&T Cooperative R&D”
SOF S&T NEEDS

- Comprehensive Signature Management (CSM)*
- Human Performance*
- First Pass Accuracy and Lethality
- Small Unit Dominance (SOFSUD)*
- Intelligence, Surveillance, & Reconnaissance (ISR)
- Tagging, Tracking, & Locating (TTL)
- C4 Revolutionary Capabilities
- Electro-optics, IR & Lasers
- Military Information Support Operations (MISO)
- Scalable Effects Weapons (SEW)
- Anti-Access/Area Denial (A2/AD)*
- Battlespace Awareness*
- Leap Ahead Energy & Power Systems
- Sensitive Site Exploitation (SSE)

* FY15-19 Science and Technology Integrated Priority List (STIPL)
**APPLIED RESEARCH (BA2) & ADVANCED TECHNOLOGY DEVELOPMENT (BA3)**

- **BA2** – Studies, Early Laboratory Hardware, Software Development Models, Concept Exploration: Technology Readiness Level (TRL) 3-5
- **BA3** – Prototypes, Demonstrations, Operational Leap Ahead Capability: TRL 5-7

### Acquisition Strategy
- Various (Competition, IDIQ, CRADA, etc.)
- Leverage External Acquisition (Services, Laboratories, OGAs)

### Period of Performance
- Project Dependent
- S&T is emphasizing Technology Discovery and longer term technology development efforts

### Funding
- FY14 BA2/3: $14.142M / $14.414M
- FY15 BA2/3: $24.854M / $25.663M
  Note: 15PB, TTL not included

### Milestones
- Project Dependent

### Point of Contact
- 813.826.9482 (TILO)

### Current Contract/OEM
- Various

**SCIENCE AND TECHNOLOGY**
S&T CAPABILITIES TO THE SOF OPERATOR

Other Government Labs/Agencies & Industry

USSOCOM HQs

Acquire & Deliver

Operational Enhancements

Needs & Requirements

Operational Enhancements & Other Tech Insertions

Science & Technology

S&T Development

Special Operations Research, Development and Acquisition Center (SORDAC)

Joint Acquisition Task Force (JATF)
SOF Warrior (PEO-SW)
Special Reconnaissance, Surveillance & Exploitation (PEO-SRSE)
Maritime (PEO-M)
Rotary Wing (PEO-RW)
Fixed Wing (PEO-FW)
Command, Control, Computers, and Communications (PEO-C4)
SOF Support Activity (PEO-SOFSA)
Services (PEO-SV)

UNCLASSIFIED