

GLOBAL SOF: ***THE ASYMMETRIC STRATEGIC OPTION FOR A VOLATILE WORLD***

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SCIENCE & TECHNOLOGY DEEP DIVE

SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

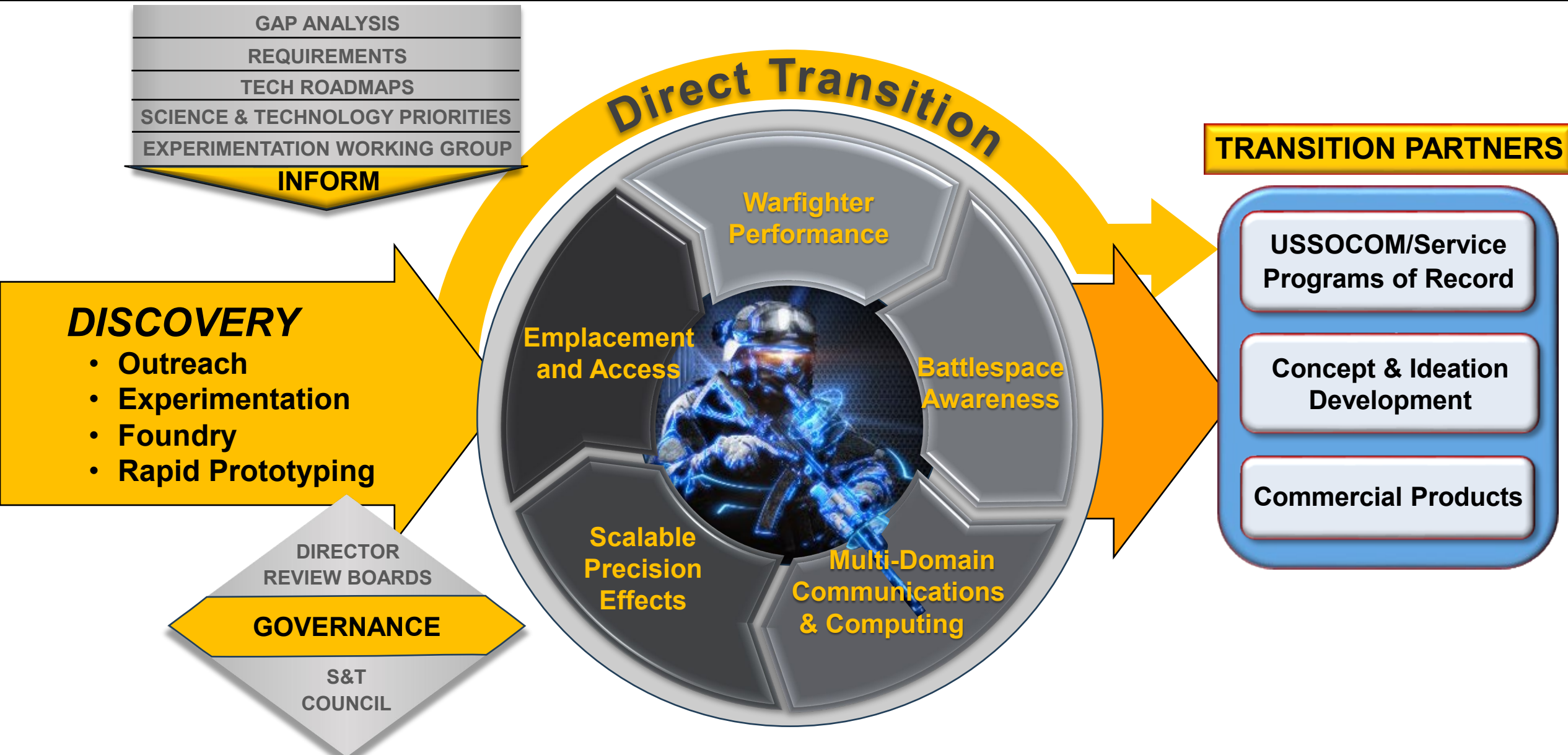


SOF AT&L-ST VISION**Innovate for Future Threats**

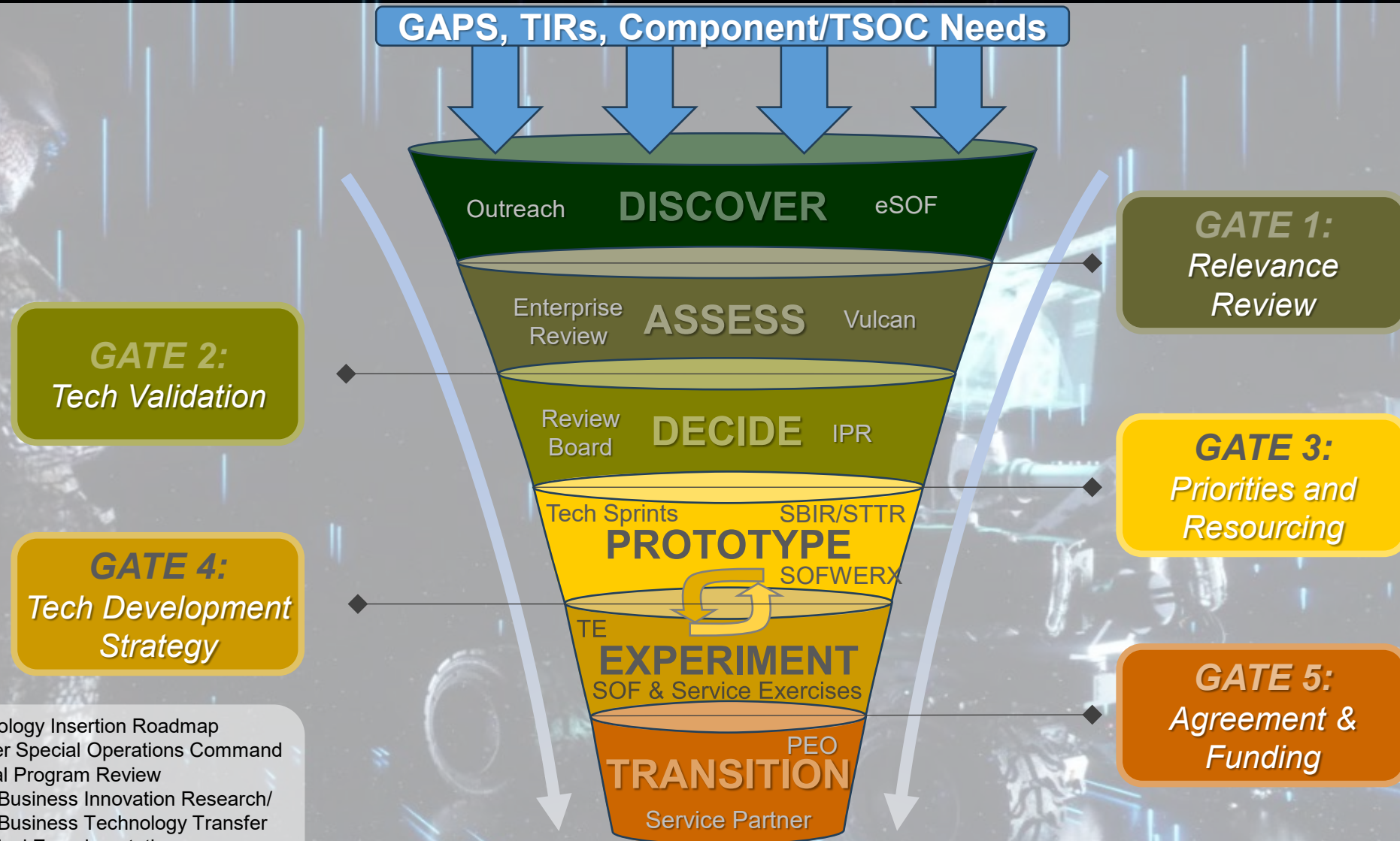
**Relentlessly Discover, Develop, Adapt
Special Operations-Peculiar Advances in
Technologies that Create Asymmetric
Advantages for SOF Integrated Deterrence
Across the Full Spectrum of Conflict**

Modernization of SOF – Prepare Today to Win Tomorrow

SOF S&T CAPABILITY PATHWAYS



SCIENCE & TECHNOLOGY OVERVIEW



TIR: Technology Insertion Roadmap
TSOC: Theater Special Operations Command
IPR: Internal Program Review
SBIR/STTR: Small Business Innovation Research/
 Small Business Technology Transfer
TE: Technical Experimentation
PEO: Program Executive Office

S&T BROAD AGENCY ANNOUNCEMENT (BAA) PROCESS

Step 1

- 5 Year BAA, Expires Dec 2030
- Amendments updated in 3rd QTR for following FY source selections through tasking to Components and USSOCOM Program Executive Offices (PEOs)
- Amendments uploaded by Contracting Officer to Sam.gov

Step 2

- S&T Capability Area Leads notified upon vendor quad submission
- S&T Capability Area Leads determine if disruptive or incremental

Step 3

- Disruptive quads sent to components for evaluation and prioritization
- Incremental quads sent to PEOs for evaluation against Technology Insertion Roadmaps

Step 4

- White Papers requested for selected submissions
- White papers evaluated
- Submission prioritized to meet SOF needs

Review Process and Source Selection

- There are two reviews conducted during the BAA process
 - Initial review Quad Charts
 - Final Review White Papers
- Both review periods cover 30 days and White Paper reviews go through same steps (1-4)
- For both review periods a down select of submissions are prioritized with Enterprise stakeholders.
- For the final review, those selected submissions will be source selected.
- For submitters not chosen through either review process, an email is sent notifying and providing them guidance for other avenues to do business with USSOCOM and enable them to update submissions for next BAA cycle.

FINANCIAL: Executes RDT&E funding (approx. \$20M annually) to provide the Operator increased survivability, competitive advantage, and optimize the human weapon system

The diagram consists of two vertical columns of boxes. The left column contains three boxes: 'Brain Health' at the top, 'Damage Control Resuscitation' in the middle, and 'Prolonged Field Care' at the bottom. The right column contains three boxes: 'Improved Sleep' at the top, 'Performance Nutrition' in the middle, and 'Cognitive Performance' at the bottom. A fourth box, 'Environmental Medicine', is positioned at the bottom left, below 'Prolonged Field Care'. A vertical line connects 'Brain Health' to 'Improved Sleep'. A vertical line connects 'Damage Control Resuscitation' to 'Performance Nutrition'. A vertical line connects 'Prolonged Field Care' to 'Cognitive Performance'. A diagonal line connects 'Environmental Medicine' to 'Cognitive Performance'.

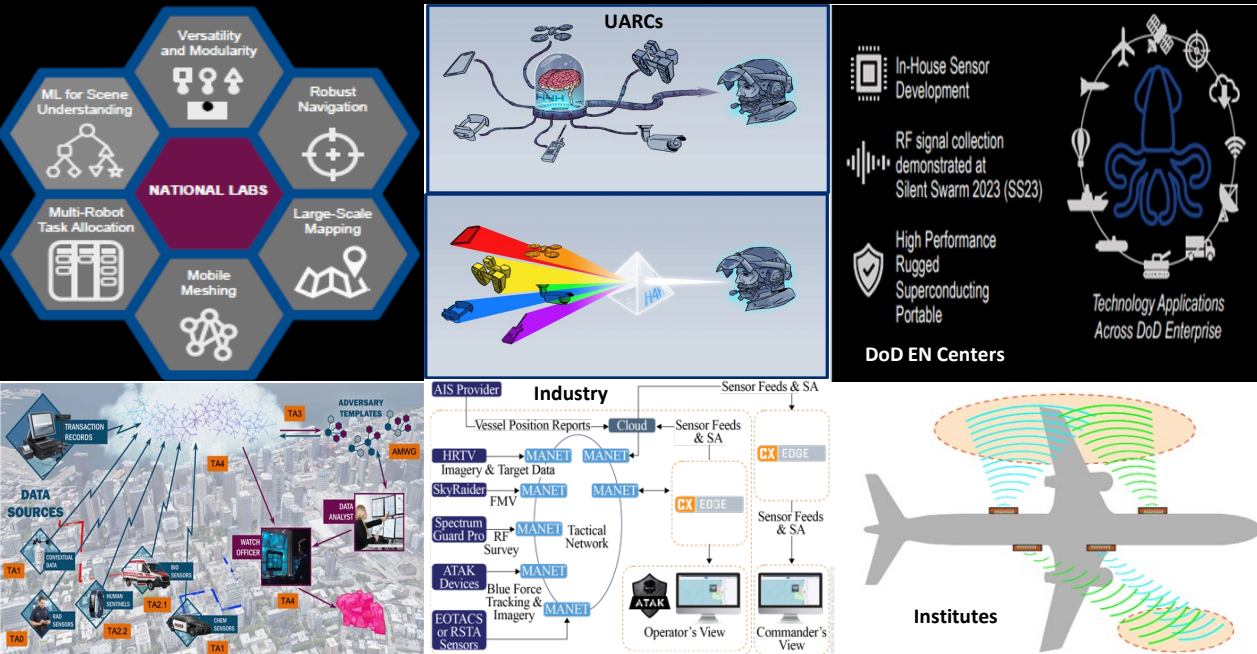
Brain Health	Improved Sleep
Damage Control Resuscitation	Performance Nutrition
Prolonged Field Care	Cognitive Performance
Environmental Medicine	Physical Performance

- Biomedical RDT&E Advisory Group (BRAG) / Board of Command Surgeons (BOCS)
- Human Performance RDT&E Advisory Group (HPRAG) / POTFF Roundtable
- Tactical Combat Casualty Care (TCCC) Program of Record Integrated Product Team
- USSOCOM S&T Council Meetings
- USSOCOM Force and Family Council

FFRDC: Federally Funded Research and Development Center

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UARC: University Affiliated Research Center

BATTLESPACE AWARENESS CAPABILITY AREA



FOCUS: SOF multi-domain dominance effects through autonomous sensor placement and Artificial Intelligence/Machine Learning (AI/ML)-enhanced sensor fusion, enabling tactical and theater data processing & analysis to support mission planning and execution. Battlespace Awareness focuses on collaborative autonomy systems to increase and enhance SOF's ability to anticipate and act on threats in contested environments, deliver an on-the-move ability to learn, and communicate knowledge for advanced awareness in peer/near-peer environments

TECHNOLOGY AREAS OF INTEREST: Autonomously delivered and placed sensors providing persistent LPI/LPD reporting of battlespace awareness for AI/ML-enhanced evaluation, analysis, prediction mission planning, and battle damage assessment

TRANSITION: PEO-Tactical Information Systems, PEO-SOF Warrior, PEO-SOF Digital Applications, PEO-Maritime, PEO-Fixed Wing, USSOCOM Components, Services

REQUIREMENT(S): SOF AT&L PEOs, USSOCOM Directorate/Component/TSOC Gap Inputs, Integrated Priority Lists (IPLs), Commander's Priorities

FINANCIAL(S): Executes RDT&E funding (approx. \$26M annually)

FOCUS AREAS

Collaborative Autonomy

Unmanned ISR Systems

Collection, Processing, Exploitation, Dissemination

Tactical Sensor Fusion and Analysis

Theater Analysis and Mission Planning

Artificial Intelligence/Machine Learning

SEA, AIR, LAND, CYBER AND SPACE

KEY EVENTS:

- Technical Experimentation
- Industry Conference (SOF WEEK)
- Foundry & Rapid Prototyping Cycle
- Other Government Experimentations
- SOF AT&L PEO Engagements
- FFRDC Cooperative Visits

KEY PARTNERSHIPS:

- SOF AT&L PEOs
- USSOCOM Components/TSOCs
- DoD & DoE Labs (DEVCOM)
- Universities, UARCs, FFRDCs
- Industry/Commercial Partners
- SOFWERX

KEY USSOCOM WORKING GROUPS:

- USSOCOM ISR Council Meetings
- USSOCOM S&T Council Meetings
- Project Review Boards

ISR: Intelligence, Surveillance, and Reconnaissance
PEO: Program Executive Office
FFRDC: Federally Funded Research and Development Center
TSOC: Theater Special Operations Command
UARC: University Affiliated Research Center
LPI/LPD: Low Probability of Intercept/Low Probability of Detection

MULTI-DOMAIN COMMUNICATIONS & COMPUTING CAPABILITY AREA



FOCUS: Provide capabilities to Special Operations Forces for a continuous and real-time gateway for situational awareness and staff functions in a highly competitive future and disruptive environment with the overall objective of providing operational dominance, to the SOF Operator, in multiple domains

TECHNOLOGY AREAS OF INTEREST: Transformative technology development in the areas of Artificial Intelligence (e.g., Machine Learning, deep learning, Natural Language Processing, neural networking), cyber operations, and LPI/LPD communications to enhance decision-making and reduce cognitive loading at the tactical edge, while ensuring connectivity for communications and navigation in contested or denied areas

TRANSITION: PEO-Tactical Information Systems, PEO-SOF Warrior, PEO-SOF Digital Applications, PEO-Maritime, PEO-Fixed Wing, USSOCOM Components, Services

REQUIREMENT(S): SOF AT&L PEOs, USSOCOM Directorate/Component/TSOC Gap Inputs, Integrated Priority Lists (IPLs), Commander's Priorities

FINANCIAL: Executes RDT&E funding (approx. \$17M annually)

FOCUS AREAS

Artificial Intelligence

Defensive Cyber

Contested Communications

Edge Computing

TACTICAL COMMUNICATIONS AND COMPUTING IN CHALLENGING ENVIRONMENTS

KEY EVENTS:

- Technical Experimentation
- Industry Conference (SOF WEEK)
- Foundry & Rapid Prototyping Cycle

KEY PARTNERSHIPS:

- USSOCOM Components/TSOCs
- DoE & DoD Labs (AFRL, DEVCOM)
- Universities/UARCs
- Industry/Commercial Partners
- SOFWERX, DefenseWERX, Dreamport

KEY USSOCOM WORKING GROUPS:

- SOF AT&L Autonomous Charter
- Gap Analysis Working Group
- USSOCOM S&T Council Meetings
- SOF Data Governance & Management Working Group

PEO: Program Executive Office
TSOC: Theater Special Operations Command
UARC: University Affiliated Research Center
LPI/LPD: Low Probability of Intercept/Low Probability of Detection

SCALABLE PRECISION EFFECTS CAPABILITY AREA



FOCUS: Pursue tactically relevant disruptive and revolutionary technologies designed to bring non-kinetic and kinetic effects against adversaries to ensure SOF dominance in future peer and near-peer great competition environments

TECHNOLOGY AREAS OF INTEREST: Disruptive technologies to include Electromagnetic Warfare and Directed Energy technologies for hard and soft targets, Offensive Cyber, Military Information Support Operations (MISO), non-kinetic technology effects, and Enhanced Kinetic Scalable Effects

TRANSITION: PEO-Tactical Information Systems, PEO-SOF Warrior, PEO-SOF Digital Applications, PEO-Maritime, PEO-Fixed Wing, USSOCOM Components, Services

REQUIREMENT(S): SOF AT&L PEOs, USSOCOM Directorate/Component/TSOC Gap Inputs, Integrated Priority Lists (IPLs), Commander's Priorities

FINANCIAL(S): Executes RDT&E funding (approx. \$12M annually)

FOCUS AREAS

Electromagnetic Warfare

Offensive Cyber

Directed Energy

Military Information
Support Operations (MISO)

Kinetic Effects

Non-Kinetic and Kinetic effects that support the offensive capabilities of the SOF Operator throughout the range of military operations in all environments

KEY EVENTS:

- Technical Experimentation
- Foundry & Rapid Prototyping Cycle
- Discovery Expo

KEY PARTNERSHIPS:

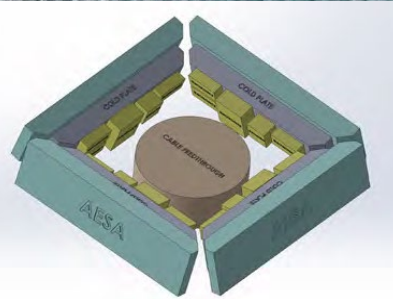
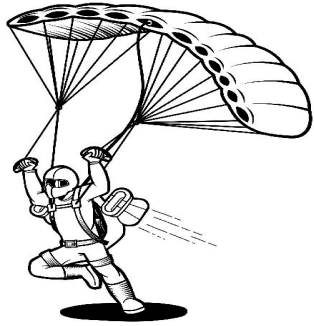
- SOF AT&L PEOs
- USSOCOM Components/TSOCs
- DoD & DoE Labs (AFRL, DEVCOM)
- Industry/Commercial Partners
- DoD Joint Non-Lethal Weapons Program
- SOFWERX

KEY USSOCOM WORKING GROUPS:

- Directed Energy Working Group
- Gap Analysis Working Group
- USSOCOM S&T Council Meetings

PEO: Program Executive Office
TSOC: Theater Special Operations Command
UARC: University Affiliated Research Center

EMPLACEMENT AND ACCESS CAPABILITY AREA



FOCUS: Reduced signature technologies are the primary emphasis with additional focus on Disruptive Technologies aimed at improving capabilities against Near Peer Adversaries in denied environments. Supports Air, Ground, Maritime Surface/Subsurface Technologies, and Digital/Cyber

TECHNOLOGY AREAS OF INTEREST: Visual, Infrared, Radar and Acoustic Signature Reduction Technologies, Digital/Cyber Signature Management, SOF-Unique Manned/Unmanned Mobility Platforms, Autonomy Solutions, Materials/Coatings

TRANSITION: PEO-Tactical Information Systems, PEO-SOF Warrior, PEO-SOF Digital Applications, PEO-Maritime, PEO-Fixed Wing, USSOCOM Components, Services

REQUIREMENT(S): SOF AT&L PEOs, USSOCOM Directorate/Component/TSOC Gap Inputs, Integrated Priority Lists (IPLs), Commander's Priorities

FINANCIAL(S): Executes RDT&E funding (approx. \$24M annually)

FOCUS AREAS

Signature Management

Signature Reduction

Advanced Materials

Mobility Platforms

Concealment

AESA Radar

**Emplacement and Access for SOF
Dominance on the Battlefield**

KEY EVENTS:

- Technical Experimentation
- Industry Conference (SOF WEEK)
- Other Government Experimentations

KEY USSOCOM WORKING GROUPS:

- Gap Analysis Working Group
- USSOCOM S&T Council Meetings
- Personnel Signature Management IPT
- DOD Service Partner Working Groups

KEY PARTNERSHIPS:

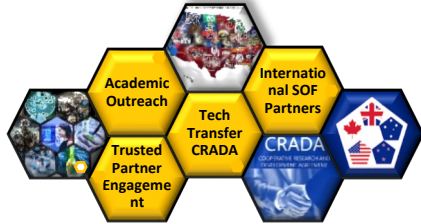
- SOF AT&L PEOs
- USSOCOM Components/TSOCs
- DoD & DoE Labs (AFRL, DEVCOM)
- Universities/UARCs
- Industry/Commercial Partners
- SOFWERX, DefenseWERX
- International Partners

PEO: Program Executive Office
TSOC: Theater Special Operations Command
UARC: University Affiliated Research Center
IPT: Integrated Product Team

SCIENCE & TECHNOLOGY DISCOVERY

Integrates the Functions of TE, Strategic Engagement, Foundry and Rapid Prototyping Cycle
Open the Aperture to Drive Capability Development

SCOUTING



Government Collaboration, Academic Outreach, Cooperative Development, and Industrial Tech Transfer

TECHNOLOGY INTEGRATION & VALIDATION



Leverage Non-Traditional Engineers, Forward Leaning Designers, Trusted Academics and SOF Operators to spark Design Thinking

TECHNICAL EXPERIMENTATION (TE)



Identify & Assess the Latest Technologies of Interest Through Benchtop Demonstrations and Experiments

• Integration with SOF Enterprise Capability Development Process:

- Expanding Technical Experimentation via performing assessments that generate a body of knowledge that will inform gap analysis, requirements generation and investment decisions
- OUSD engagement to include Rapid Defense Experimental Reserve (RDER), Defense Innovation Acceleration (DIA), and Accelerate the Procurement and Fielding of Innovative Technologies (APFIT)
- Integrated across the Center to deconflict/identify redundancies and potential partners

PEOPLE | WIN | TRANSFORM

S&T DISCOVERY EVENTS

UNCLASSIFIED

- **TE 25-3, 8-12 September 2025, North Carolina**
 - Focus: Human Machine Teaming
 - <https://sam.gov/opp/6ecbdf072572404195139a1e67cc0283/view>
(submissions due 26 May 25)
- **TE 26-1 (Tentative), January 2026, Florida**
 - Focus: Multi-Domain SOF Operations
- **TE 26-2 (Tentative), Date and Location TBD**
 - Focus: To be determined by end of CY25

Public Link: <https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx>

- **Rapid Capability Assessment 16, 4-8 August 2025, Location TBD (Tampa)**
 - Topic: Contested Logistics in SOF Future Operations
- **Foundry and Rapid Prototyping Cycle 17, TBD**
 - Topic to be determined by end of FY25 and disseminated via SOFWERX / SAM.GOV

QUESTIONS



PEOPLE | WIN | TRANSFORM

DOING BUSINESS WITH SOCOM

SMALL BUSINESS HELP

POC: Ashley Farrier
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osbp@socom.mil
813.826.9475

SUBMITTING IDEAS AND CAPABILITIES

Engage SOF (eSOF) on Vulcan

Pathway to present SOF relevant
capabilities to USSOCOM
POC: Kimberly Carberry
kimberly.r.carberry.civ@socom.mil
eSOF@socom.mil
www.engageSOF.com
<https://www.Vulcan-SOF.com>

SOFWERX (Unclass, open forum partnering
with industry to solve Warfighter problems)
<https://www.sofwerx.org>

TECHNICAL EXPERIMENTATION

<https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx>

