

SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE *Win* • *Transform* • *People*

Ms. Lisa Sanders *Director, Science & Technology* **SCIENCE & TECHNOLOGY** Engagements and Opportunities



SOF AT&L-ST Vision



Science & Technology Budget

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

- **BA2**: Studies, Early Laboratory Hardware, Software Development Models, Concept Exploration. Technology Readiness Level (TRL) 3-5
- **BA3**: Operational Prototypes, Advanced Technology Demonstrations, Technical Experimentation, Technology Insertions. TRL 5-7

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES
 Various (Competition, IDIQ, CRADA, Prize Challenges, etc.) External Leveraging (OGAs, Services, Laboratories) 	 Project Dependent Emphasizing Tech Discovery, PEO TIRs needs, and game-changing technology development 	• Project Dependent
POINT OF CONTACT	FUNDING	CURRENT CONTRACT/OEM
 USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482 	 FY18 BA2/BA3: \$19.05M/\$71.62M = \$90.67M FY19 BA2/BA3: \$20.36M/\$51.58M = \$71.94M 	• Various

S&T Portfolio Challenge



S&T Portfolio Analysis



S&T Futures Process



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SOF Hard Problems

USSOCOM_____

SCIENCE AND TECHNOLOGY - PREPARING FOR THE FUTURE 2020-2030



SPECIAL OPERATIONS COMMAND WANTS YOUR HELP SOLVING THEIR HARD PROBLEMS



United States Special Operations Command's Science and Technology (S&T) Directorate has developed three Special Operations Forces (SOF) Hard Problems that are of critical importance to SOF missions. They are: **Small Unit Dominance, Mission Assured Communications, and Signature Management**. The three SOF Hard Problems are available for download at: https://www.socom.mil/SOF-ATL/Pages/SOF-Hard-Problems.aspx.

If you think you've got a solution that can help USSOCOM's S&T Directorate solve some or all of the SOF Hard Problems please reply via their **Hard Problems mailbox** also located on that same website. Please feel free to distribute this information to interested parties that could provide potential solutions to these S&T SOF "Hard Problems."

S&T Main Focus Areas

Tactically Relevant Situational Awareness

- Next Generation Identification and Characterization comprehensive and verifiable location of targets across various sensor systems
- Applicable in all environments not just airborne assets in uncontested environments
- Includes means to turn information into decision quality data Artificial Intelligence (AI)/Machine Learning (ML)
- Includes human-machine interface to make the data accessible and usable to all SOF echelons operator through Tactical Operations Center (TOC) Commander

Communication and Navigation in all Environments

- Global Positioning System (GPS) Denied regardless of cause
- Hostile, contested, and Crowded Electromagnetic Spectrum
- Low Signature

Tailored Lethality

- Counter-materiel & Counter-personnel
- Incorporates scalability and reversibility

Biotechnologies

- Understand and counter adversary Weapons of Mass Destruction (WMD)/terror/effect
- Explore means to optimize SOF warfighter capability/performance throughout their career





Hyper Enabled Operator



From Reactive to Predictive, in Front of the OODA Loop

FY19 S&T Virtual Symposium

- Future Operating Environment
- SOF Challenge Areas:
 - Next Generation Identification and Characterization
 - Contested Environment Situational Awareness
 - Countering Autonomous Systems
 - Strategic and Tactical Signature Management
 - Tactical Communication and Navigation
 - Tactical Remote/Autonomous Systems and Human Machine Interface



Science & Technology Directorate Virtual Symposium

REGISTER AT: <u>https://www.socom.mil/SOF-ATL/Pages/TDWG-Virt-Symp.aspx</u>

Technical Experimentation (TE)

- TE 18-3, 17-21 July 2018 at Fort A.P. Hill, VA
 - Experimentation Focus: C4, Cyber, ISR, Mobility, and Small Unmanned Aerial Systems (SUAS)
- TE 19-1, 5-9 November 2018 at Avon Park Air Force Range, FL
 - Experimentation Focus: Hyper Enabled Operator
- Public Link:

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

• Linked in Group: SOCOM Technical Experimentation









Vulcan-Technology Scouting Application

- Web-based platform that enables anyone to quickly describe technology and upload supporting documentation to a secure, shared, searchable, central database
 - Information is entered into a "Scout Card"
 - Scout Cards can be easily disseminated across the SOF Enterprise to individuals or teams
 - Enables everyone in SOF to be a Tech Scout
- Government users can remotely "poke" the organization or individual who originally entered the data to provide updates/respond to comments
- Vulcan supports evaluation/assessment/scoring of submitted technologies, and sharing of results
- Each time a Scout Card is interacted with it has an associated timeline showing technology maturation across events

Go to https://www.vulcan-sof.com and register





Vulcan provides an <u>exponential</u> increase in efficiency and effectiveness over existing business processes for gathering, disseminating, searching, assessing and <u>acting on</u> technology related information.

USSOCOM CRADAs

OVERARCHING CRADA

- Formulated to provide general access to USSOCOM gaps/needs to foster collaboration – must be consistent with missions of organization
- Allows for the formulation and execution of Individual Work Plans (IWP) between the Collaborator PEO/Directorate within SOF AT&L
- Collaborator may request meetings with appropriate personnel to discuss IWP development – through the SOF AT&L Technical POC
- SOF AT&L Acquisition Executive signed company coordination and acceptance – generally 30 days

SPECIFIC (TRADITIONAL) CRADA

- Formulated to provide a collaboration on a specific technology
- Follows USSOCOM Directive 70-1 Appendix Q procedures
- Standard Template
- Specifically between collaborator and single PEO/Directorate
- Writing and staffing is generally 90 to 120 days





S&T Engagement Tools

S&T ACTIVITY	OPPORTUNITY	ENGAGEMENT
SOF Futures Foundry Events POC: Shawn Martin 813-825-4578, <u>shawn.martin@socom.mil</u>	 S&T has developed an S&T Futures Process S&T conducts "Futures Foundry" events to enable SOF's ability to accomplish their missions 10-15 years in the future 	 S&T plans to conduct 1-2 SOF Futures Foundry Events per Fiscal Year Innovation Foundry events will provide opportunities for attending and injecting disruptive technology solutions for SOF
Small Business Innovation Research (SBIR)/ Small Business Technology Transfer (STTR) POC: Mr. Anthony Aldrich 813-826-9150, <u>anthony.aldrich@socom.mil</u>	 S&T manages SOCOM's SBIR/STTR programs Stimulates innovation for small businesses 3 Phases, Phase I is a Study (\$150K), Phase II Prototype (\$1.5M), Phase III Commercialization 	 <u>https://www.socom.mil/SOF-ATL/Pages/sbir.aspx</u> USSOCOM participates in three SBIR/STTR Topics Call per year (April, August, and December timeframes)
Technical Experimentation (TE) Events POC: Mr. Dan Bernard 813-826-9917, <u>dan.bernard@socom.mil</u>	 Conducts 3 US-based events every fiscal year each with different theme(s) Industry opportunity to engage and demonstrate technology/concepts and get direct feedback from SOF Operators/Acquisition Professionals 	 Normally 1 TE Event/QTR, TE Request for Information (RFI) posted on <u>FBO.gov</u> for each TE Event Go to <u>https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx</u>
Cooperative Research & Development Agreements (CRADA) POC: Mr. Howard Strahan 813-826-1267, <u>howard.strahan@socom.mil</u>	 SOCOM employs Overarching and Specific (Traditional) CRADAs Legal agreement to provide general and specific access to USSOCOM needs 	 Allows for the formulation and execution of Individual Work Plans (IWP) between the Collaborator – PEO/Directorate within SOF AT&L
Broad Agency Announcements (BAA) POC: Mrs. Damian Guinn 813-826-7416, <u>damian.guinn@socom.mil</u>	 SOCOM S&T Directorate/PEOs develop and post BAAs to <u>FBO.gov</u> that provide Areas of Interest (AOI) to Industry and other External Organizations 	 S&T BAA once per year in April TALOS BAA once per year in January Biomedical BAA once per year in February through US Army
Vulcan POC: Mr. Howard Strahan 813-826-1267, <u>howard.strahan@socom.mil</u>	 Web-based platform that enables anyone to quickly describe technology and upload supporting documentation to a secure, shared, searchable, central database 	 Vulcan supports evaluation/ assessment/scoring of submitted technologies, and sharing of results Go to <u>https://www.vulcan-sof.com</u> and register
Technology & Industry Liaison Office (TILO) POC: Mrs. Shelvin Watts 813-826-1269, <u>shelvin.watts@socom.mil</u>	 Conduit for the SOF AT&L Enterprise Matches your company's product/service/capability to the appropriate personnel within the command and schedules discussions or demos 	 Go to <u>https://www.socom.mil/SOF-ATL/Pages/submit-your-idea.aspx</u> for information and link to USSOCOM Areas of Interest and for the TILO Submitting Your Idea Form

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QUESTIONS?

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