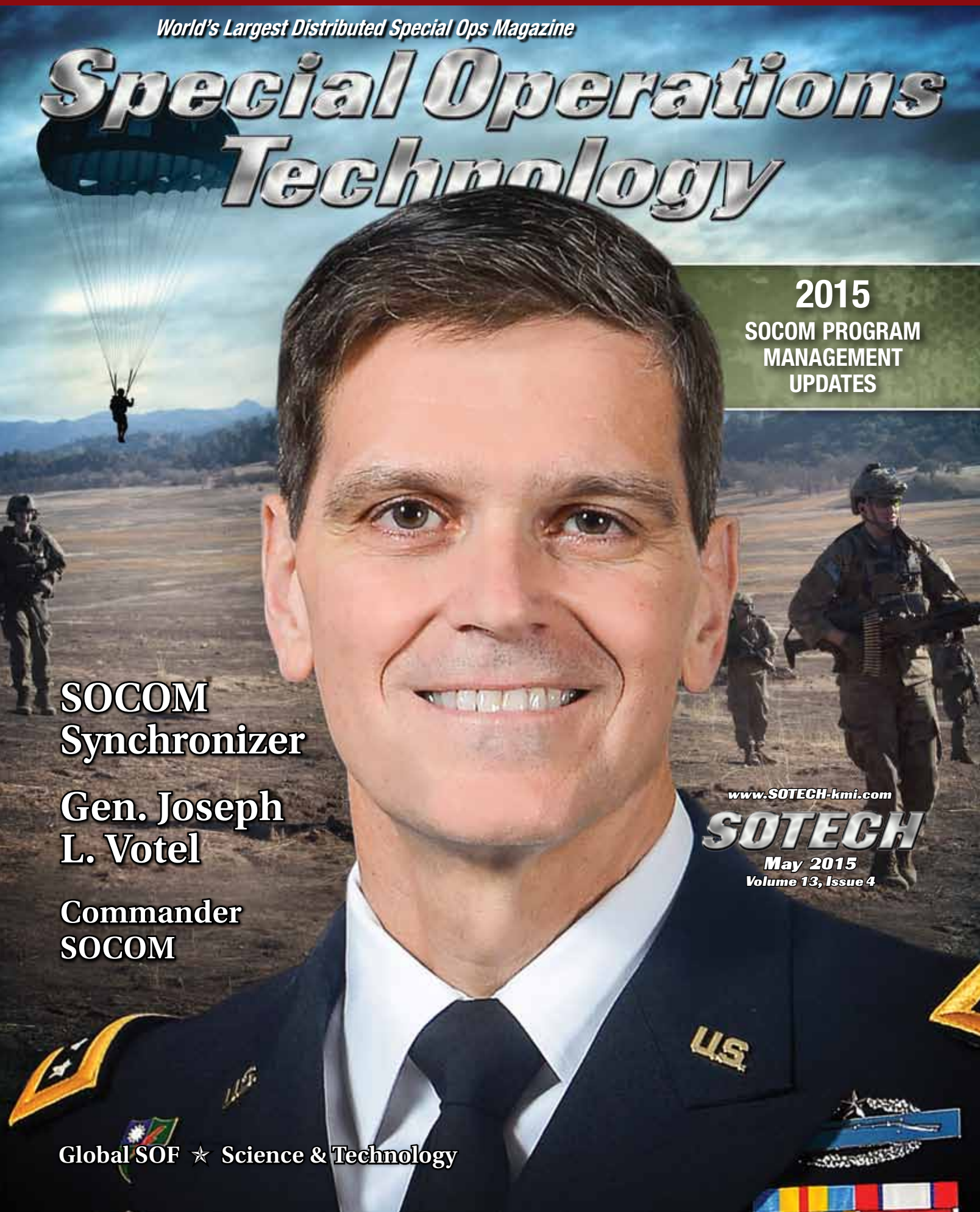

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2015 SOCOM PROGRAM MANAGEMENT UPDATES

SOCOM Synchronizer

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Features

2015 SOCOM PROGRAM MANAGEMENT UPDATES

Special Operations Forces Acquisition, Technology and Logistics and their team had another great year. Their success showed the determination, expertise, superiority, vigor and creativity every member provided in order to support SOF operators worldwide.

BUILDING PARTNERSHIPS FOR EFFICIENCY

SOCOM Science and Technology organization and business processes exist to "discover, enable and transition technologies to provide an asymmetric advantage for special operations forces." It is impossible to succeed in those areas without close partnerships with industry, academia and other government organizations.

BY ANTHONY DAVIS

MOVING BEYOND "JOINTNESS"

At its core, modern warfare is no longer defined by full-scale, interstate clashes, but by asymmetric conflict. The primary threats to national security and national interests faced by the United States and our allies manifest in terrorist networks, transnational criminal organizations, rogue states and the intersections and nodes of cooperation among these malicious actors.

BY MEAGHAN KEELER-PETTIGREW AND TESS DEBLANC-KNOWLES

Cover / Q&A

GENERAL JOSEPH L. VOTEL
Commander
SOCOM

Departments

Industry Interview

ANDREW RUSZKOWSKI
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EDITOR'S PERSPECTIVE

Chris McCoy
EDITOR

Major General James B. Linder, the former commander of Special Operations Command Africa, recently took command of the U.S. Army John F. Kennedy Special Warfare Center and School (JFKSWCS) from Major General Eric P. Wendt. Wendt is assuming the position of chief of staff, U.S. Pacific Command, at Camp H.M. Smith in Hawaii.

"No Army Special Operations officer can match the accrued knowledge and expertise of Major General Wendt," said USASOC commander Lieutenant General Charles T. Cleveland. "There is no doubt Eric will leave his mark on U.S. security before he leaves uniform."

Wendt had his own praises for the institution and people of JFKSWCS.

"I'd like to take this opportunity to thank the members of the U.S. Army John F. Kennedy Special Warfare Center and School for their tremendous innovations and world-class work over the last year and for upholding the highest standards," said Wendt. "I praise the people and the institution of the U.S. Army John F. Kennedy Special Warfare Center and School, and also thank the local communities and associations that have provided so much support to the Special Warfare Center and School in the last year."

Linder then recounted a story from his previous command that explained how relationships between African soldiers partnering with U.S. Green Berets resulted in support from the host population facing the threat of Boko Haram's brutality.

He had the following message prior to the end of the ceremony:

"Ladies and gentlemen, welcome to the Special Warfare Center. This is where the U.S. Army's Special Operations warriors are built," Linder said. "Today, we pause briefly to recognize the contributions of Major General Eric Wendt and the extraordinary men and women of this magnificent command. At the conclusion of this ceremony, we return to the business of securing the idea of liberty. We return to the business of defeating violent extremists. We return to the business of building Army special operations warriors."

As usual, feel free to contact me with questions or comments for *Special Operations Technology*.

A U.S. Army CH-47 Chinook helicopter moves toward land to pick up Green Berets with the 7th Special Forces Group (Airborne) participating in helocast training. [Photo courtesy of the U.S. Army/by Specialist Stephen K. Young]

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ON A PERSONAL NOTE...

When L-3 employees were asked what attracted them to the company and to serving the USSOCOM customer, a common thread emerged: commitment to the SOF warriors and to the mission. That commitment was felt at every level for reasons that were deeply personal.

In their own words, here is what some L-3 team members had to say:

Jennifer Napper

VP, Deputy General Manager for Defense Solutions

"The members of the Special Operations Forces are always on point, doing the most difficult missions the nation asks of our military, so **it's critical to make sure we protect them** from growing cyber threats. I wanted to bring what I learned as a leader at CyberCom to the SOF mission, and it was clear to me that the leadership of L-3 is equally dedicated to that mission."

Keith Linthicum

VP, Director, Special Missions Services

"During one of the most dangerous times in history, it has never been more important to provide complete, accurate and timely intelligence support to SOF. We're here to help ensure their mission success and lower the risk to operators. I spent 16 years on active duty with SOF and even more time serving them as part of L-3. **I'm honored that USSOCOM continues to look to us as a trusted partner** to continue the mission."

Dana Tankins

Deputy Program Manager,
SITEC Distributive Computing Managed Services (DCMS)

"It's been so great to reconnect with my SOF family – I feel like I'm back home now. I spent 10 years in SOF, then returned to 'Big Army' for several years and just recently joined the L-3 team in Tampa. **I was really impressed by L-3's focus on doing the right thing** to support mission success. I know one of the most powerful weapons you can have in the field is your cell phone, so I'm looking forward to sharing some of the lessons learned from the Army LandWarNet with the SOF community."

Colleen (Kelly) McCue, Ph.D.

Data Scientist

"I find SOF personnel to be incredibly focused problem solvers. There is an intensity to the mission you can't find anywhere else. They intuitively understand how to apply data science concepts to operations, and they're very willing to innovate, which makes my job incredibly energizing. Social media is one area where our adversaries are particularly agile and adept and where we intend to focus our energies."

"I'm looking forward to using data science to anticipate our adversaries' moves and change outcomes in the new social media battlespace."

Colleen (Kelly) McCue, Ph.D.

Jason Cook

Program Manager,
SITEC Specialty Services

"I went to Iraq in 2003 on one of the first airlifts into Baghdad. That experience put me in the position of really understanding what's needed in the tactical environment and how to prioritize and manage the services we provide. **We're talking about a mission in motion – you have to be adaptable.** L-3 has always supported my efforts to look for well-rounded people who have the right skills and a serious can-do attitude to support my customers."

Edward (Eddie) Hall

Program Manager, Special Missions Services

"I grew up in SOF – I spent over 18 years in the community – so I have a lot of friends serving. **My friends' lives depend on the quality of service they receive.** I like that L-3 has so many different components and not just one niche capability, and I chose L-3 because we share the same cultural values as the SOF community. Our solutions are driven from the 'bottom up' and not the 'top down,' and that's the way it's supposed to be."

To find out more, please visit our website at L-3NSS.com.

Building Partnerships for Efficiency

How to Do Business with SOCOM Science and Technology.

By Anthony Davis

SOCOM Science and Technology (S&T) organization and business processes exist to "discover, enable and transition technologies to provide an asymmetric advantage for special operations forces." But it is impossible for us to succeed in those areas without close partnerships with industry, academia and other government organizations. This article will discuss the various venues, mechanisms and opportunities for forming and building those partnerships and how best to leverage them to do business with SOCOM S&T.

First is the area of technology discovery. This is the area in which we've historically partnered the least effectively. The majority of our past scouting efforts have been focused on visits to various locations in an attempt to find the latest and greatest technologies across a vast number of interest areas. Realizing that was unrealistic, we've built a series of options for exposing a technology to the right subject-matter experts (SMEs). Descriptions of those options, what type and maturity of technology fits best into each and additional details about entry points are listed below.

Technology & Industry Liaison Office (TILO)

Frequently misunderstood, the TILO is SOCOM's major face to industry. The charter of TILO is to receive white papers and presentations from industry and academia, distribute them to the right SMEs across the command, and then either set up follow-on meetings or presentations or provide feedback about why that type of follow-on isn't desired. The target technology readiness level (TRL) for TILO is more mature technologies, generally in the TRL 6-9 range.

This is an extremely important function, as it relieves industry and academia from trying to determine the right person to send their information to, and it also provides a single point-of-entry control for the command. However, the TILO is a very small office. They receive a tremendous amount of information, and their ability to respond is only as good as the information they receive from the SME reviewers across the command.

TILO's contact info is tilo@socom.mil. A best business practice is not to send anything into the TILO blind. Know your business area; know the program managers (PM) and program executive officers (PEO) who may be interested in your technology or capability; prep the battlespace at trade shows or other events; and follow up to ensure they've seen your input and are reviewing it.

Technical Experimentation (TE)

TEs are events held three to four times per year at various field venues across the United States. They are generally a week to 10 days in duration, and have one or two focused technology "themes" to allow stakeholders to better align their participation. The sweet spot for TE is low to mid-TRL levels (4 to 6 or 7), and active experimentation or collaboration is highly encouraged.

The intent of TE is not to provide a venue for a field "trade show," but to support experimentation and demonstration of new technologies and ideas in a relevant field environment with the active participation of SOF operators. The major opportunity and business value of TE is intended to be getting direct, hands-on feedback from SOF operators early enough in the design and development process that it provides substantive input into choices and decisions on form, fit or function.

Topics and schedule for TE events are posted in requests for information (RFI) on the FedBizOpps website at https://www.fbo.gov/. Additional information and schedule are available at http://www.socom.mil/sordac/Pages/ExpWithUS.aspx and on the TE LinkedIn group SOCOM Technical Experimentation.

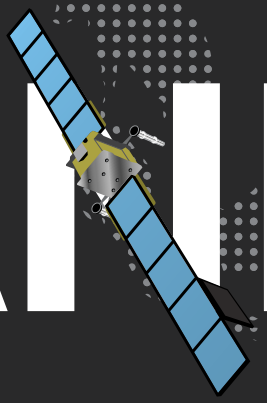
Tactical Assault Light Operator Suit (TALOS)

The TALOS project is SOCOM's top-priority research and development (R&D) initiative to deliver a next-generation combat suit while pioneering innovative acquisition processes. TALOS has evolved significantly in its second year of operation, and is organized as a Joint Acquisition Task Force (JATF). The JATF was established in November 2013 to achieve the command's vision to fully protect and enhance the capability, lethality, safety and stealth of the SOF operator, with a first-article integrated prototype scheduled for delivery in August 2018. We receive lots of questions about how best to contribute to TALOS. The best advice we can give is to monitor the S&T overarching broad agency announcement TALOS appendices for updated needs and new TALOS requests for information. The team is also working on a series of challenges and rapid prototyping events (RPEs), but the schedule is evolving daily.

Special Operations Forces Industry Conference (SOFIC)

SOFIC is a once-per-year event at the Tampa Convention Center, co-sponsored by the National Defense Industrial Association (NDIA). SOFIC has two primary agendas for the week: first is an opportunity to hear directly from all the major constituencies within the command on SOF's challenges, trends and interests and how industry partners can help support these areas. This includes briefings from the top down, including the commander, SOCOM;

LOUD AND CLEAR



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the commanders of our service components and theater special operations commands (TSOCs); and all levels of the SOF Acquisition, Technology and Logistics organization from the acquisition executive to the individual PM. SOFIC is held in May each year, and more information can be found at http://www.sofic.org.

Technology Domain Awareness (TDA) and Project Vulcan

A recent study by the Center for Strategic and International Studies (CSIS) documented numerous barriers to identifying and accessing "outside" innovation (i.e., looking beyond R&D conducted or sponsored by DoD). Project Vulcan is a DoD Information Analysis Centers (IACs) pilot effort to improve SOCOM's TDA. It is an effort to better connect SOF operators and acquisition professionals with their counterparts in the global high-tech market, enabling application-level innovations (novel uses of existing technology). Project Vulcan will prototype a number of business process, tools and incentives relevant to the broader TDA mission. This effort is in its infancy, but should be an exciting partnership and add new opportunities for collaboration inside and outside the department.

Combustion Chambers

S&T has been watching, engaging and supporting various innovation "combustion chambers" across the country and in the local Tampa Bay area. These have started to spring up in various areas, often developed by industry, academia or local or state governments, to create a venue and climate to encourage innovation. Our interest in them is threefold: 1) as a place we can engage and collaborate innovative thinkers, doers and nontraditional DoD partners; 2) as a place we can participate in various innovation-centered events like challenges and demonstrations; and 3) a place that's easy for non-DoD people to access. An example of this is our Unclassified Test Bed (UTB) in St. Petersburg, Fla. The UTB is a commercially operated facility with much lower barriers to access than bringing people/equipment into a DoD facility. This allows us to use it for meetings, equipment demonstrations and other events with much less upfront planning and gyrations. For information about the UTB, see http://info.soutb.com/.

Second is the broad area of enabling technology development. We specifically chose the verb "enable" because SOCOM's ability to directly invest in technology development is relatively constrained in comparison with the wide array of technologies and capability efforts we need to influence, mature and integrate in order to continue providing a technology advantage for our SOF operators.

Broad Agency Announcements (BAA)

BAAs have historically been, and will continue to be, the principal way S&T contractually engages with industry. The major change in this area is that we've recently moved to an overarching, five-year, enduring BAA (called USSOCOM-BAAST-2015 on FedBizOpps). The idea is that instead of watching for and anticipating five to 10 uncoordinated BAAs from different offices at SOCOM, we'll give you one unified vehicle. When our requirements change, or we have clarifications or additions, we will release an appendix to the BAA. Thus far we've released two appendixes, and have a third one in pre-release staffing. Appendix C lists the TALOS requirements, and lays out a schedule for quarterly review of white papers. Appendix D lists the first two technology interest areas from the PEO Technology Insertion Roadmaps (more about that shortly), and appendix E will be added soon detailing the core S&T needs for fiscal year 2016 investment. You can find the BAA here: https://www.fbo.gov/spg/ODA/USSOCOM/SOAL-KB/USSOCOM-BAAST-2015/listing.html.

Cooperative Research and Development Agreements (CRADA)

Our CRADA program is growing into a substantial portion of how we partner with industry and academia. CRADAs are very flexible, and allow us to provide our partners virtually anything, with the exception of funding (as it isn't a contract). This includes access to personnel, facilities, equipment, test or experimentation venues, intellectual property, etc., in order to further the work or collaboration we've agreed to. The agreement also facilitates the industry or academic partner similarly contributing materials, equipment, facility, staff, etc., to further the work plan we've agreed on. If you believe this is of interest, send a note to ocrada_sof@socom.mil and we'll start the discussion.

Industry Outreach

This is our newest enabling effort, and perhaps still in search of the right name. But it is a methodical effort to increase S&T's engagement with industry's internal R&D (IRAD) investment. We're starting with our CRADA partners as our initial scope, but the intent is to better understand each company and academic institution's IRAD process and how they select, manage and prioritize their portfolio. In return, we're offering up to one day per year where S&T will attend the review, expo or other meeting you believe is best to understand your IRAD portfolio, and provide you feedback on our technology priorities. Ultimately, we believe the earlier and more informed our interaction with your IRAD planning is, the greater chance you will develop a technology of interest. We have yet to establish a process for selecting/scheduling these interactions, so in the interim sending them to our CRADA email address will get them in our queue for action.

Last, but not least, S&T is spending significant effort on technology transition. By this we mean minimizing the "valley of death" and ensuring our technology development projects transition into a program of record. Without including the resources available in the big services or other external programs, the ratio is greater than 40:1 of funds that SOCOM PEOs execute to acquire capabilities for our operators versus the funds that S&T can directly apply to technology development. It is hugely important to our collective success that we maximize the return on that investment. Below are some of the means we've developed for improving the odds of successful transition.

PEO Technology Insertion Roadmaps (TIRs)

The SOCOM PEOs have always had capability roadmaps, which show in broad terms where their portfolios and major platforms are headed over time. What we've done recently is to decompose each of those capabilities into the technologies required to make them successful, and then show those technologies across time on a TIR. Those roadmaps were coordinated with our various stakeholders, and will be added to each PEO's SOFIC briefings this year. This effort has accomplished three things for us: 1) developed a tool for identifying these technology needs to potential developers; 2) allowed

S&T to identify technologies that are ripe for investment now; and 3) supported SOF AT&L internal cross-leveling to ensure these needs are identified, and we have a strategy in place for attacking each of them. This was a very interesting analysis, and we look forward to sharing the results with you at SOFIC.

S&T Transition Expectations Page

The simplest and likely most significant thing we've done to bridge the "valley of death" is to build a transition page on our SOF AT&L portal. This page identifies for each of the 70-plus projects in the S&T portfolio which PM in what PEO is expected to receive the technology transition, whether there is funding in place for the transition, planned transition timeframe, etc. While this information is internal to our government portal, we wanted you to be aware that this conversation was taking place, as we believe the end result will be many more projects that successfully transition into production. This is an obviously positive outcome from both the government perspective and the technology developer.

TALOS Technology Spinoffs

Last, but not least, the TALOS prototyping efforts have already begun to deliver several very promising technology spinoffs. We're working to put a process in place to identify those, identify the appropriate transition path, and then transition them into a SOF or service program of record for acquisition and sustainment. We believe this side product of TALOS will yield tangible value to SOCOM over the five-year development and integration effort.

Conclusion

This article discussed the various tools and processes SOCOM S&T uses to "discover, enable and transition technologies to provide an asymmetric advantage for special operations forces." Throughout all the various options for doing business with us, the common theme is partnership and collaboration with industry, academia and other government organizations. Hopefully, this article has introduced you to some new options and refreshed you on some you already knew of, and better equipped you to use them to do business with SOCOM S&T. ★

Anthony Davis

Anthony Davis is director of S&T at SOCOM.

For more information, contact *SOTECH* Editor Chris McCoy at chrism@kmimediagroup.com or search our online archives for related stories at www.sotech-kmi.com.

Compiled by KMI Media Group staff

Predator B Achieves 1 Million Flight Hours

General Atomics Aeronautical Systems Inc. (GA ASI), a manufacturer of RPA systems, radars, and electro-optic and related mission systems solutions, announced that its Predator B/MQ-9 Reaper RPA fleet has achieved a historic milestone of 1 million cumulative flight hours, with almost 90 percent of all missions flown in combat.

Additionally, GA-ASI announced that its Predator/Gray Eagle-series aircraft family set a company record and historic industry feat in 2014: more than 500,000 flight hours flown, which is the equivalent of flying 1,370 hours around-the-clock every day.

"GA-ASI works diligently to deliver solutions to meet our customers' requirements, and these two achievements wouldn't be possible without the dedication and commitment of our employees," said Frank W. Pace, president, aircraft systems, GA-ASI. "These records are a testament to the reliability and durability, as well as the remarkable operational flexibility, of GA-ASI's RPA family."

Predator B achieved this record on February 20 after flying 78,606 sorties. Its first flight occurred at GA-ASI's Gray Butte Flight Operations Facility in Palmdale, Calif., on February 2, 2001. Predator B flight hours now account for approximately one-third of GA-ASI's 3.2 million total flight hours and are increasing at an average rate of over 22,000 hours a month.

Predator B aircraft are currently logging over 700 hours a day supporting the U.S. Air Force, U.S. Department of Homeland Security, NASA, the Italian Air Force, the Royal Air Force, the French Air Force and other customers. Missions include direct support to warfighters in world hot spots; assisting border agents in monitoring the nation's borders; aiding first responders in the wake of natural disasters; and supporting scientists in performing earth science missions. GA-ASI has delivered more than 230 Predator B aircraft to date and is currently building three aircraft per month, with the capacity to more than double production if needed.

GA-ASI RPA flight hours continue to increase exponentially each year. The aircraft family logged 1 million flight hours between 1994 and 2010. It later accrued an additional 2 million flight hours between 2010 and 2014, bringing the total to over 3 million hours flown.

Kimberly Kasitz;
kimberly.kasitz@ga-asi.com

Next-Generation Software Enables Greater Mission Flexibility

L-3 Unmanned Systems has announced the release of its next-generation Insyte 5.0 video processing and exploitation software. Insyte is the baseline operational software used in all VideoScout intelligence exploitation systems. The new 5.0 version provides several significant enhancements over previous releases, including the ability to support an unlimited number of video streams, multiple concurrent recording capabilities and a database-driven library with tagging, geo-location and metadata location searching. The software also features a redesigned communications interface. Insyte 5.0 is designed to support front-end tactical collection and integrate with enterprise systems.

"Insyte software has a reputation in our customer community as having a very user-friendly video exploitation interface," said J.R. Gear, vice president of strategic development at L-3 Unmanned Systems. "With the new 5.0 version, we have retained its easy-to-use interface while increasing collection and real-time viewing capability. This advancement will increase the performance of our VideoScout products, both for land and sea operations, and support the continuous demand for comprehensive decision-level intelligence."

Insyte 5.0 will provide simultaneous mapping functions, including mapping multiple videos at once (via Google Earth or FalconView). It will also provide unlimited video streaming, allowing operators to monitor multiple streams simultaneously for real-time mission operational viewing and perimeter surveillance.

Greg Martz;
greg.martz@l-3com.com

Extreme Watch

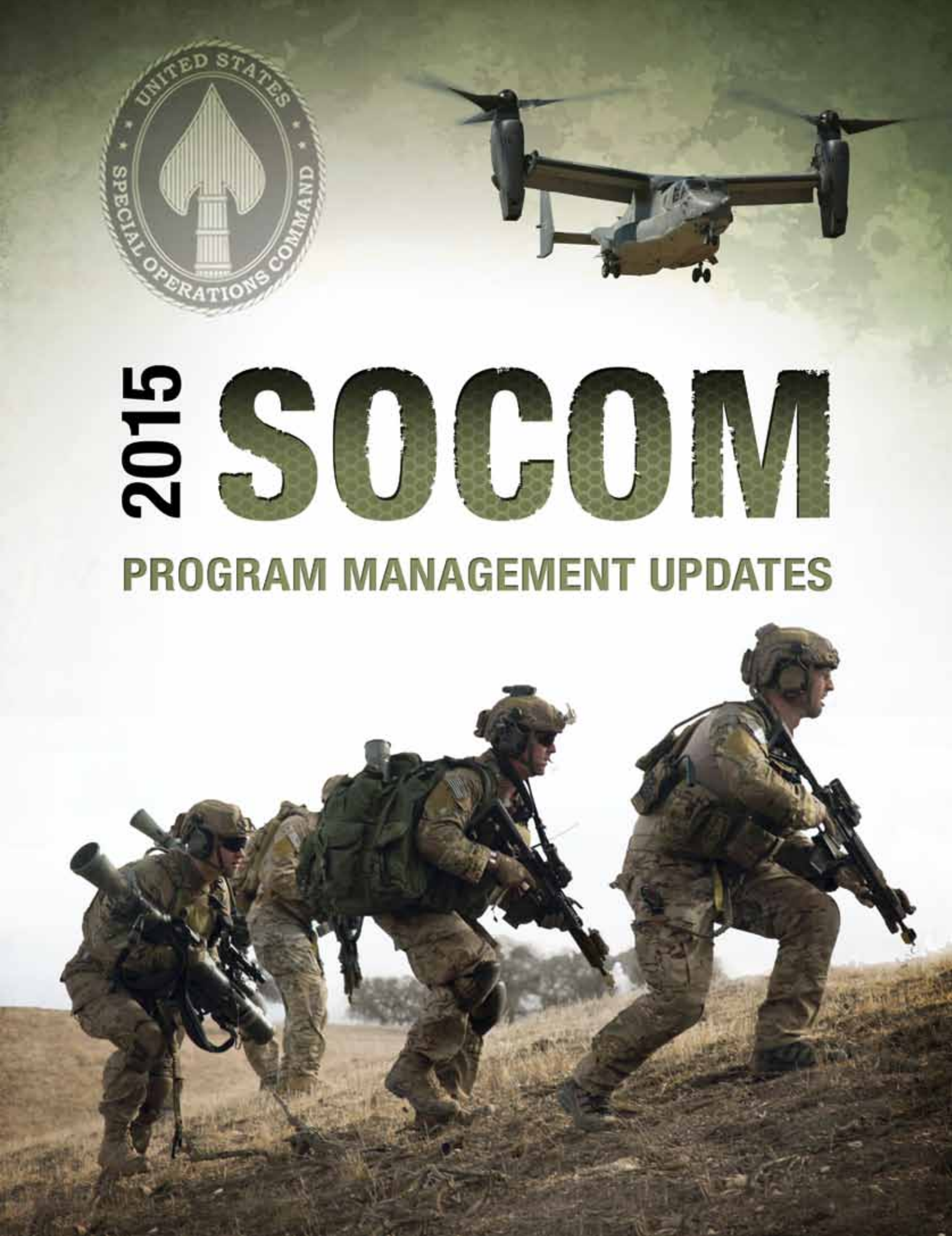
According to the company, when MTM introduced the Seal series back in 2005, it was considered revolutionary. It was the first dive watch with a fluid-filled titanium case, tritium gas tube-lighted hands and index to be considered 'water-proof.'

Today's edition of the Seal series is manufactured to the strictest tolerances available and raises the bar from earlier versions.

"No detail in its design has been overlooked, nothing short of perfection accepted, in the development of this highly anticipated timepiece," said the company. "True to the philosophy of MTM, only the highest quality materials available were used in its design and fabrication."

The Seal's dial is composed of carbon fiber and its glass is an extra-thick, anti-glare, scratch-resistant sapphire crystal.

The crown is a screw-down locking type while the bezel is counter-clockwise ratcheting and unidirectional. All of these specifications are powered by a specially calibrated Swiss quartz movement. From its 100 percent titanium case and band, to its tritium gas-filled tubes, to its 1,000 meters water with automatic helium release valve resistance—everything about the new Black Seal says "extreme!"



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U.S. Special Operations Command

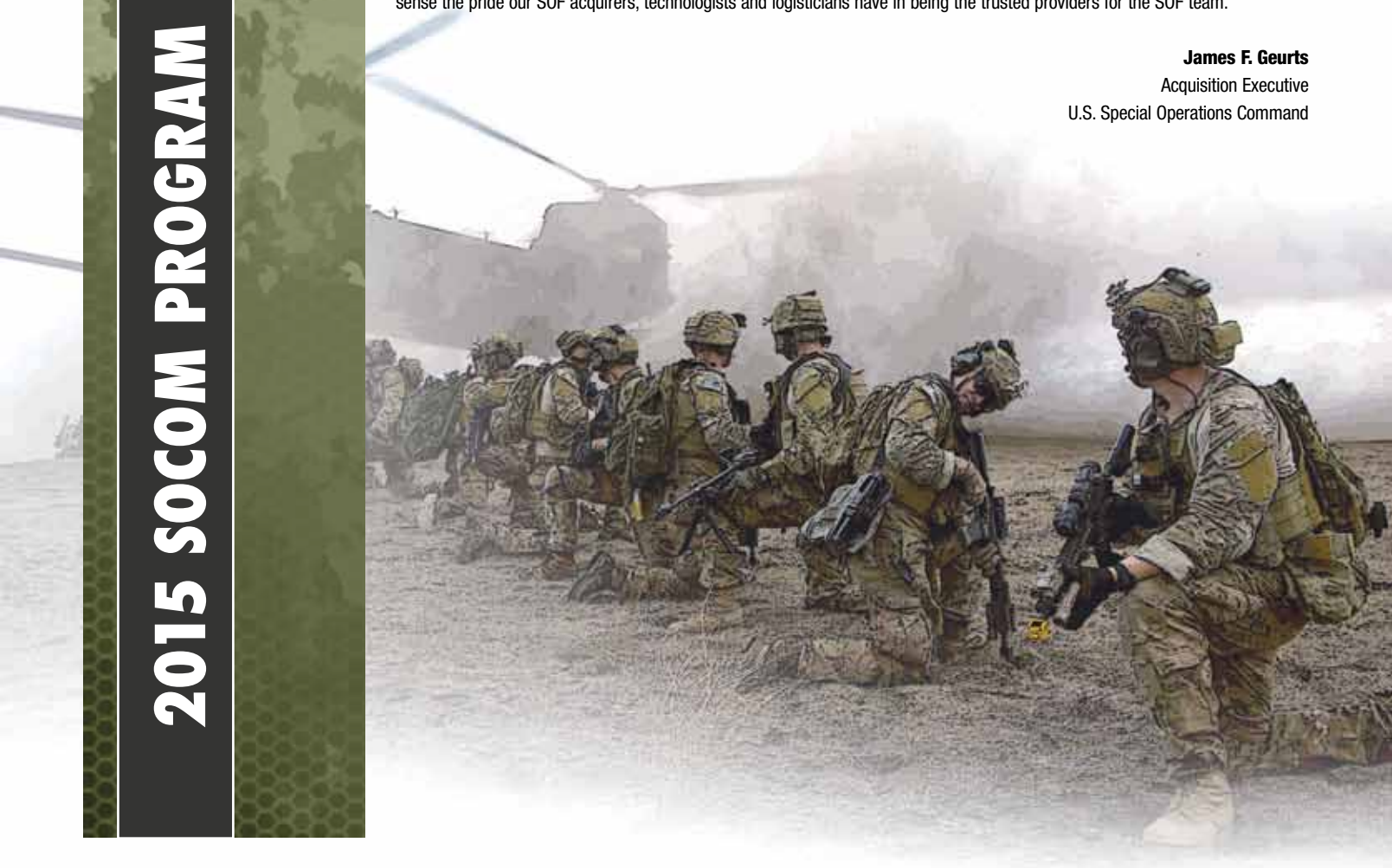
Special Operations Forces Acquisition, Technology and Logistics

Special Operations Forces Acquisition, Technology and Logistics (SOF AT&L) and our outstanding team of professionals, the SOF acquirers, technologists and logisticians, had another great year. Our success once again showed the determination, expertise, superiority, vigor and creativity every member of our team put toward meeting our mission of providing rapid and focused acquisition, technology and logistics to our SOF operators.

SOF AT&L exists in a complex environment of ever-changing operational budgets, requirements, processes, laws and oversight. Our dedicated team of experts, through collaboration with the services and our international and industry partners, continues to successfully equip and support the SOF operator. The program executive offices managed wide-ranging, multibillion-dollar portfolios composed of hundreds of programs in such areas as intelligence, surveillance and reconnaissance; weapons; body armor; visual augmentation systems; ground mobility platforms; fixed- and rotary-wing aircraft; maritime platforms; command, control, communication and computer systems; ammunition; service contracts; contracted logistics; and many more areas. Our Science and Technology team persistently and quickly helped identify and develop war-winning technology solutions for the forces. SOCOM J4's operational and strategic support to SOF worldwide and the Procurement Directorate's rapid and responsive contract solutions continue to exceed the command's requirements. These achievements reflect our pride in ensuring special operations forces are equipped to accomplish the SOCOM mission—and none of this would have been conceivable without the excellent support from the entire SOF AT&L workforce.

As you read our program executive officers' and directors' articles and reflect on their many notable accomplishments, you'll sense the pride our SOF acquirers, technologists and logisticians have in being the trusted providers for the SOF team.

James F. Geurts
Acquisition Executive
U.S. Special Operations Command



PROGRAM EXECUTIVE OFFICE FOR COMMAND, CONTROL, COMMUNICATIONS AND COMPUTERS

Deborah J. Woods leads the Program Executive Office for Command, Control, Communications and Computers (PEO-C4). PEO-C4 manages the research, development, acquisition, fielding and sustainment of C4 systems that collectively form the SOF information environment (SIE). The SIE is an extension of the DoD network that provides additional special operations-peculiar capabilities and extends those capabilities to remote, austere locations. It allows garrison and tactical users to reach back to access national assets, allowing SOF elements to operate with any force combination in multiple environments.

PEO-C4's portfolio consists of 15 programs with a budget of more than $2.8 billion across the Future Years Defense Plan. It includes three primary capability areas: 1) enterprise networks and military information support operations (MISO) systems, 2) network transport systems and 3) tactical communications.

PEO-C4 will continue to focus on the integration of state-of-the-art technologies and standardization across the enterprise. An additional priority includes ensuring voice, video and data—regardless of the source—can be properly accessed, processed and stored and made available immediately to SOF users across the globe. PEO-C4's efforts emphasize the utilization of commercial off-the-shelf products and the leveraging of DoD and other government agency programs to supplement SOF capabilities.

Enterprise Networks and MISO Systems

The Program Management Office for Enterprise Networks and MISO Systems is responsible for designing, acquiring, fielding and sustaining the garrison and tactical network automation infrastructure systems. The division manages nine programs: 1) Special Operations Command Research, Analysis and Threat Evaluation System (SOCRATES); 2) C4 Automation Systems (C4AS); 3) Tactical Local Area Network (TACLAN); 4) Media Production Center (MPC); 5) MISO-Print (MISOP); 6) Fly-Away Broadcast System (FABS); 7) Next-Generation Loudspeaker System (NGLS); 8) Long-Range Broadcast System (LRBS); and 9) Civil Information Management Data Processing System (CIMDPS).

The SOCRATES program is the SOF extension of the Joint Worldwide Intelligence Communications System network and is used to develop, acquire and support garrison automated intelligence system requirements for SOF organizations worldwide. It provides the capabilities to exercise command and control, planning, collection, collaboration, data processing, video mapping, a wide-range of automated intelligence analysis, direction, intelligence dissemination, imagery tools and applications—to include secondary imagery dissemination—and news and message traffic. The system ensures intelligence support to mission planning and the intelligence preparation of the battlespace by connecting numerous data repositories while maintaining information assurance. The system supports Headquarters SOCOM, its component commands, theater special operations commands (TSOCs) and forward-based SOF units. SOCRATES is composed of state-of-the-art networking devices (e.g., firewalls, routers, switches, hubs and modems), servers, storage devices, workstations, associated peripherals and government off-the-shelf/commercial off-the-shelf software.

PEO-C4 manages the research, development, acquisition, fielding and sustainment of C4 systems that collectively form the SOF information environment. [Photo courtesy of SOCOM]

C4AS provides garrison infrastructure for unclassified and classified (secret) networks and services. It also provides a seamless and interoperable interface with SOF, DoD and service information systems. The systems provide the capabilities to exercise command and control and collaboration, process and share data and facilitate mission planning and operational planning of the battlespace connecting numerous data repositories.

The TACLAN program provides SOF operational commanders and forward-deployed forces advanced automated data processing and display capabilities to support situational awareness, mission planning and execution and command and control of forces. The program consists of suites, mission planning kits (MPKs) and field computing devices (FCDs). Each suite consists of three easily transportable integrated networks, 60 general use laptops and 10 intelligence laptops. MPKs consist of four general use laptops and ancillary equipment used by SOF teams for detailed mission planning support. FCDs are small, handheld computing devices used by the most forward-deployed SOF teams to automatically interface with the suite via tactical communications. Full-motion-video distribution hub-light (FMV VDH-L) consists of enhanced encoders/decoders for ingestion of high-definition video into the SIE.

The MPC program is a family of systems consisting of a fixed installation (MPC-H) at Fort Bragg, N.C., with worldwide deployable subsystems (MPC-M and MPC-L). MPC is a set of independent but inter-related multimedia production and editing capabilities providing MISO forces and other select organizations with options for imagery, audio, animation and audio/video products of varying degrees of technical complexity and operational responsiveness. Its output is multimedia products that are compatible with foreign country, commercially available and/or contracted electronic dissemination systems and with U.S. Army MISO organic dissemination assets.

The MISOP program is a family of print systems designed to support the MISO print requirements of a geographic combatant command using the latest commercial digital press technologies. This family of systems (FoS) supports small units up to an entire theater of operations. The MISOP FoS consists of four variants: 1) tactical MISOP-Light, 2) MISOP-Medium (Fixed), installed at a fixed site OCONUS supporting CENTCOM operations, 3) deployable MISOP-Medium version and 4) strategic MISOP-Heavy at Fort Bragg.

The FABS program provides a modular and highly deployable radio, television and cellular broadcasting system able to transmit on a wide range of frequencies and spectrums, including AM, FM, SW, VHF, UHF and Global System for Mobile Communications cellular in both digital and analog formats.

The NGLS program provides a family of loudspeaker variants, each optimized for a specific operational environment that can transmit live or recorded audio messages to diverse sets of target audiences in a variety of tactical environments.

The LRBS is a modular MISO broadcast asset capable of providing AM, FM, TV UHF/VHF and cellular MISO broadcasts to foreign target audiences in permissive, semi-permissive and denied environments with broadcast systems integrated into long-loiter UAVs.

The CIMDPS program provides an automation capability to assist active civil affairs and others engaged in civil-military operations to collect, process, analyze, maintain, mine and deliver civil information and analysis products in support of military operations.

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The Program Management Office for Enterprise Networks and MISO Systems is an important contributor to realizing some of the SOCOM Chief Information Officer's key initiatives for efficient and effective delivery of enterprise services to all SOF users worldwide, including consolidation of services to reduce total ownership costs. The programs operate in an evolutionary technology insertion mode through incremental development, acquisition and implementation of next-generation technology solutions.

Network Transport Systems

The Network Transport division is responsible for developing, acquiring, fielding and sustaining the SIE transport systems. It manages three programs: 1) SOF Deployable Node (SDN), 2) Product Distribution System (PDS) and 3) SCAMPI (which not an acronym).

SDN is a family of deployable, super high-frequency, multiband, satellite communications (SATCOM) systems providing deployed SOF users with the transport path for access to the SIE for high-capacity, voice, data, video teleconference and video at all levels of classification. It consists of SDN subprograms, transport for intelligence variants, technology insertions and capital equipment replacement.

The PDS program provides the SATCOM transport path for the worldwide MISO architecture. It consists of fixed, heavy, medium and light variants. Each variant is used at different levels of command: from the media operations complex to the tactical MISO teams to link planners with review/approval authorities, production facilities and dissemination elements.

The SCAMPI program is the telecommunications system that provides real-time voice, data and video teleconferencing capabilities at various classification levels to worldwide deployed and garrison SOF locations. SCAMPI includes support to airborne ISR data transports efforts.

Tactical Communications

The Tactical Communications division is responsible for acquiring, fielding and sustaining the tactical communications segment of the SIE. The division manages three programs: 1) Joint Tactical C4I Transceiver System (JTCITS), 2) Radio Integration System (RIS) and 3) SOF Tactical Communications (STC).

The JTCITS provides portable video receiver terminals for receipt of tactical full motion video from unmanned aerial systems. JTCITS Increment II expands transceiver capability with Type-1 encryption and internet protocol for video and telemetry data in dismounted form factor for handheld or manpack use.

The RIS is an evolutionary acquisition program procuring the most current tactical command and control communications system for deployed and forward-based SOF and TSOCs. The procured solution consists of a full-scale deployable transit case variant, a downsized deployable transit case variant and a fixed base station variant. All variants are capable of integrating existing and future radios into one integrated command and control suite that provides a base station for deployed SOF.

The STC procures the next-generation SOF communication system and replaces most of the currently fielded SOF suite of radios. The capability will consist of five basic form factors: 1) a manpack device that will be a multiband device capable of being carried by an individual or being mounted on various SOF platforms; 2) a fixed configuration that will be a multiband and/or high-frequency device designed for implementation into air/ground/sea platforms or base stations; 3) a high-frequency device in a manpack configuration that will be capable of being mounted on various SOF platforms; 4) a handheld device that will include both an urban and a maritime variant; and 5) an individual device that will be a small handheld device to provide intra-team communications capability of voice, data and video; the system will introduce additional capabilities to SOF to improve current situational awareness capabilities and performance on SOF platforms.

PROGRAM EXECUTIVE OFFICE FOR FIXED WING

Air Force Colonel Eric N. Forsyth leads the Program Executive Office for Fixed Wing (PEO-FW). The PEO-FW mission is to deliver special operations-peculiar (SO-P) manned and unmanned fixed-wing airpower capabilities to effectively enable and equip SOF. To execute this mission, PEO-FW partners with the SOF operators as well as several development and support organizations to synchronize acquisition activities while fielding a state-of-the-art array of advanced technology sensors, defensive countermeasures, advanced avionics and mission training systems. The PEO-FW acquisition process ensures SOF fixed-wing aircraft can successfully accomplish assigned missions in likely threat environments and address supportability challenges of an aging legacy fleet.

SOCOM's manned and unmanned fixed-wing aircraft provide the backbone for SOF airborne mobility, aerial refueling support, airborne precision engagement and aerial surveillance capabilities. They provide critical infiltration and exfiltration, and they resupply capabilities for SOF in and out of hostile territory through weapon systems such as the MC-130J Commando II, MC-130P Combat Shadow, MC-130H Combat Talon II and CV-22 Osprey aircraft. The AC-130H Spectre, AC-130U Spooky and AC-130W Stinger II are all providing critical precision engagement and close-air support. Several PEO-FW-managed manned and unmanned systems are currently delivering real-time aerial surveillance of the battlefield for the individual soldier, sailor, airman, Marine and task force commander.

The low-density, high-demand nature of the SOF fixed-wing fleet is a key driver in the acquisition approaches used by PEO-FW for continual system improvements while sustaining the force. The high operational tempo of these aircraft systems requires innovative methods to incorporate capability enhancements and sustainment improvements while maintaining full on-site mission capability for the warfighters.

Unmanned Aircraft Systems

Unmanned aircraft systems (UAS) range from the small hand-launched aircraft to large remotely piloted aircraft and carry sensors providing real-time intelligence, surveillance and ISR capabilities for many different requirements across the SOF component commands.

The small unmanned aircraft system (SUAS) program utilizes the RQ-20A Puma All Environment, hand launched and controlled by SOF ground forces providing local real-time reconnaissance, surveillance and target acquisition capabilities.

The medium endurance unmanned aircraft system (MEUAS) program contracts operators and maintainers to fly the catapult-launched and wire/net-captured Scan Eagle and Aerosonde systems providing intermediate-range ISR for SOF. The MEUAS III proposal has been published, and SOCOM anticipates contract award by end of 1Q FY16. This proposal is seeking contractor-operated and contractor-owned solutions in more than one UAS category.

The multimission tactical unmanned aircraft system will be a program of record in FY16. SOCOM will transition existing Scan Eagle equipment procured from a joint urgent operational needs statement to a program of record in support of the Naval Special Warfare Command. SOCOM PMUAS will manage this program starting in FY16.

The medium-altitude, long-endurance tactical (MALET) program equips MQ-1s and MQ-9s with modifications and kits enabling SO-P ISR and precision strike capabilities. MALET has modified more than 40 aircraft and their associated ground control stations with capability kits to meet evolving SOF mission performance requirements. SOF is slowly moving toward an exclusively MQ-9 fleet.

SOF UAS have proven their value as an unblinking eye in a wide range of operations: from locations close to operating ground forces to regional coverage and theater-wide deployment. Deploying SO-P ISR payloads are required to address critical capability for current operations and those of the future.

U-28A

In response to an escalating need for ISR, PEO-FW procured six Pilatus PC-12 aircraft in 2005. These aircraft were modified with a suite of military communications and sensor equipment and were subsequently fielded as U-28A aircraft in 2006.

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The aircraft was selected for its versatile performance and ability to operate from short and unimproved runway surfaces. Weight reduction and mission enhancement modifications were implemented on these aircraft in 2007, extending their operational range and effectiveness. Nine additional aircraft were procured in 2007 for subsequent delivery during 2008. Through DoD supplemental funding in 2008, SOCOM procured another six aircraft to meet increased operational demands and standardize the entire fleet. The final aircraft delivered in January 2010, and the fleet-wide modifications were completed in September 2010. As part of an Air Force Special Operations Command force restructure, the non-standard aviation (NSAV) PC-12 aircraft will be converted to the U-28 configuration. Funding for converting the first seven aircraft was sourced, and the contract subsequently awarded in September 2012. Two of the seven were delivered in 2013, and the remaining five delivered in 2014. Funding to convert the remaining three aircraft has not been sourced.

RC-26B

SOCOM partnered with the National Guard Bureau to support SOF objectives for overseas contingency operations. Six RC-26B aircraft were expeditiously modified and fielded with a SO-P communication and sensor suite. These aircraft provided critical, manned, persistent ISR capabilities for SOF operations. Two aircraft supported a training mission in the continental United States, and four assets were continuously deployed for immediate real-world operations. In 2012, the aircraft moved from Iraq to Afghanistan. The aircraft concluded their support in June 2013 and, following a maintenance inspection cycle, returned to their respective assigned home stations. Two aircraft were further modified in late 2013, and the aircraft were deployed to Southern Command for eight months in 2014.

Non-Standard Aviation

The NSAV mission provides dedicated intra-theater airlift and contractor logistics support for the geographic combatant commander's theater special operations commands. The NSAV program, along with the derivative Aviation Foreign Internal Defense (AvFID) program, delivered 21 light aircraft (11 Pilatus PC-12s and 10 C-145As—formerly M-28 Skytrucks) and 17 medium aircraft C-146As (formerly Do-328s) to support command mobility requirements worldwide. All NSAV aircraft are modified with a common suite of military communications equipment.

The 11 PC-12s were procured and delivered to the 318th Special Operations Squadron at Cannon Air Force Base, N.M. NSAV initial operational capability was met when two of the PC-12s successfully deployed with full contractor logistics support in mid-2008. All PC-12 aircraft were transferred to the U-28 program in 2013.

The C-145As have been delivered to Cannon Air Force Base (5) and Duke Field, Fla. (5). An additional five M-28s were ordered in 2012 and were delivered to Duke Field during 2013 following mission modifications. The C-145As at Cannon moved to Duke Field in May 2013, and the entire fleet was officially transferred from NSAV to the AvFID mission. Six aircraft were upgraded to the Block 10 configuration during 2014. The Block 10 configuration includes an NVG cockpit, a digital intercom system, and static line personnel jump capability. Maintenance responsibility transferred from contractor to military personnel during 2014.

The C-146A aircraft procurements began in 2010. All 17 medium C-146A aircraft have been procured and delivered to the 524th Special Operations Squadron at Cannon. Ten aircraft were upgraded to the Block 20 configuration in 2014. The Block 20 upgrade includes a night-vision-goggle (NVG) cockpit, soft smoke barrier and additional storage capabilities.

AC-130J Ghostrider—AFSOC's Next-Generation Gunship

In 2011, SOCOM began a program to replace the aging AC-130H gunship fleet with new AC-130J aircraft. The AC-130J program integrates the precision strike package (PSP) on MC-130J aircraft provided by the Air Force. PSP includes a medium and large caliber gun, electro-optical/infrared sensors, crew workstations, fire control system, mission management software, precision guided munitions and a communications suite. AC-130J is an Acquisition Category (ACAT) II program and began flight test of the first gunship (AC1) in early 2013. The program is on track to complete developmental testing and start initial operational testing and evaluation (IOT&E) in 2015. AC2 will be the IOT&E test article and is currently undergoing modifications from the MC-130J configuration. AC2 is slated to be completed in June 2015.

In 2011, SOCOM began a program to replace the aging AC-130H gunship fleet with new AC-130J aircraft. [Photo courtesy of SOCOM]

The program office will satisfy the objective direct-fire capability by adding the 105mm cannon beginning with AC3. AC3 is anticipated to complete post-production modifications in late 2016. This capability enhancement follows the acquisition strategy of leveraging AC-130W capability upgrades as a risk reduction measure for AC-130W. A demonstration of a 105mm gun capability on AC-130W was completed as risk reduction for future integration on the AC-130W and AC-130J platforms. AC-130J will add two primary crew stations in 2016 to decrease crew workload and increase operational effectiveness.

The program office continues to evaluate innovative contracting and logistics strategies to accelerate aircraft delivery while ensuring the system is safe, suitable, sustainable and effective throughout its useful service life. A renewed emphasis on evaluating alternatives to contractor logistics services and competitive acquisition strategies are areas of specific concentration. The team is working diligently with contracting and logistics experts to ensure Air Force Special Operations Command's next-generation gunship provides the best possible value for years to come.

AC-130W Stinger II—SOF's Precision Strike Aircraft

The Stinger II is equipped with a modular PSP using enhanced electro-optical/infrared sensors, a trainable 30mm cannon, the Stand-Off Precision Guided Munition (SOPGM) family of missiles, and a networked battle management system. These modifications provide the Stinger II with the capability to execute close-air support and air interdiction missions for deployed SOF operations. In addition to supporting immediate combat operations, the Stinger II's modular PSP provides a risk reduction platform for SOCOM's AC-130J program. The PSP configuration release IV (CR IV) upgrade now being incorporated on the AC-130W is the same configuration that will be providing initial combat capability onboard the AC-130J. In addition to the current array of PSP capabilities, the CR IV upgrade adds the 105mm large caliber gun, synthetic aperture radar, Hellfire missile and full-laser small-diameter bomb (LSDB) capabilities against maneuvering targets along with enhanced pilot situational awareness by incorporating a helmet-mounted display capability. AC-130W CR IV equipped aircraft will be fielded during 3Q and 4QFY16.

PEO-FW is also responsible for the procurement and integration of SOPGM variants for use on the AC-130W Stinger II, AC-130J and other SOF aircraft. The SOPGM provides a small, lightweight precision guided weapon for irregular warfare. The

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Griffin missile is a SOPGM that utilizes the common launch tube and government-developed battle management system. An improved Griffin Block III SOPGM has been fielded since 2013, providing increased seeker sensitivity for conducting combat operations. Another SOPGM, the LSDB, was fielded on the AC-130W in 2014 and has seen extensive operational use. The LSDB is a modified small diameter bomb that utilizes a semi-active laser seeker to allow for more precise engagements of both static and moving targets. It is released from modified-wing pylons. Additional SOPGM candidates for integration include hellfire missiles and other glide weapons.

C-130—Backbone of the SOF Fixed-Wing Fleet

PEO-FW continues to face the mounting challenges of sustaining the low-density, high-demand legacy SOF C-130 fleet while simultaneously satisfying roadmaps for modernization. PEO-FW manages numerous SOF C-130 sustainment, modification and modernization programs.

SOCOM, in conjunction with the Air Force, is procuring 37 new MC-130J aircraft through a joint program with Air Combat Command's combat search and rescue community to recapitalize the aging MC-130E/P tanker fleet. Through the 4Q of 2014, a total of 24 MC-130J aircraft have been delivered. In 2014, one MC-130J aircraft was modified to a SO-P Increment 3 configuration, which includes a combat systems officer station in the cockpit. Increment 3 includes a special mission processor sub-system that will enable SOF to quickly integrate future capabilities into the aircraft architecture.

Ongoing operations continue to stress the legacy SOF C-130 fleet. In 2014, SOCOM achieved two significant milestones to enable continued operations through 2023. The Mission Computer Replacement Program successfully completed software development and has begun modifications of the first MC-130H aircraft for flight testing. Additionally, the MC-130H terrain following radar service life extension program completed flight test and has begun production of replacement hardware. The AC-130U and MC-130H have completed all replacements of the center wing box. Additionally, the Robins Air Force Base depot is continuing to monitor life expectancy on the C-130 outer wings, with replacements as necessary.

The consolidated, low-cost modification program continues to address ongoing minor modifications to SO-P equipment to improve reliability and maintainability, correct deficiencies, address obsolescence, and incorporate mission enhancements. Low-cost modifications during 2014 included enhanced situational awareness, high-definition video recorders, increased gunship electrical power and GPS improvements.

CV-22 Osprey—SOF's Long-Range Insertion Platform

The CV-22 fulfills the requirement for high-speed, long-range insertion and extraction of SOF in hostile or denied territory in a single period of darkness. The range, altitude and speed of the CV-22 provide flexibility, unpredictability and less dependency on staging bases or refueling assets. As a result, the CV-22 can self-deploy worldwide to satisfy current combat operations and higher authority taskings. CV-22s have deployed to multiple locations around the globe and have been actively supporting special operations infiltration, exfiltration and resupply missions. SOCOM has delivered 42 of the programmed fleet of 50 CV-22s. The final production buy of CV-22s was completed in 2014, with a scheduled delivery of 2016.

PROGRAM EXECUTIVE OFFICE FOR MARITIME

Navy Captain Keith W. Lehnhardt leads the Program Executive Office for Maritime (PEO-M) responsible for providing SOF operators with operationally effective and sustainable surface and subsurface maritime mobility platforms. The PEO is composed of three program offices in the undersea portfolio and a single multi-product program office for the surface portfolio. PEO-M partners with Naval Special Warfare Command and their subordinate operational commands to meet the requirements for SOF maritime mobility throughout the world. PEO-M manages more than $925 million of Major Force Program-11 (MFP-11) dollars over the Future Years Defense Plan and coordinates Navy activities in the execution of 16 surface and subsurface acquisition programs and subprograms.

Undersea Programs

Undersea programs include a variety of in-service, in-production and developmental platforms and are further categorized as wet and dry boats. The wet fleet consists of the in-service SEAL delivery vehicle (SDV) and the developmental shallow water combat submersible (SWCS). The dry fleet consists of the developmental dry combat submersible (DCS). The dry deck shelter (DDS) program is an in-service program with significant modifications and pre-planned improvements in progress.

The SWCS is well into the manufacture of an engineering developmental model (EDM) that will be used for test and evaluation as the performance specifications for a production model is planned. The SWCS will be capable of operating from an existing DDS and will replace the legacy SDV. The primary method of launch and recovery will be from a DDS on board a host submarine, but alternative methods are available such as future large ocean interfaces or surface ships. The SWCS program completed two key accomplishments in 2014: a system-level critical design review and a fit check of a full-scale SWCS model inside a DDS.

During FY14, the DCS program successfully achieved significant milestones in assessing technology readiness levels for a future DCS materiel solution. The DCS program used a leased commercially classed submersible (the S301i) to facilitate the validation of testing, training procedures and logistical requirements. Additionally, the undersea systems team is procuring two prototype submersibles (the Button 5.60 and S351). Completion of manufacturing of both government-owned prototypes completed or neared completion in FY14. The Button 5.60 prototype completed construction and initiated factory acceptance testing and at-sea acceptance testing in 4QFY14 with delivery scheduled planned in FY15. Concurrently, the S351 completed pressure hull testing and began final assembly in 4QFY14 with planned delivery in FY15. Of note, these prototype vessels are not planned to be used as a down-select for DCS but, rather, will provide SOCOM insight and validation of technologies relevant to SOF mission requirements and enable a DCS milestone B decision in late FY15.

Surface Mobility Programs

The Surface Systems Program Office is responsible for the acquisition of special operations-peculiar maritime craft and subsystems in support of Naval Special Warfare Command. The program office instituted an aggressive plan to recapitalize the fleet with combatant craft–assault (CCA), combatant craft–medium (CCM) and the combatant craft–heavy (CCH) mobility platforms. Additionally, Surface Systems instituted RDT&E programs to identify and develop the mission equipment required by the surface mobility platforms to maintain a comparative advantage.

Surface Systems continued fielding CCA to the operational community at Naval Special Warfare Group 4. The CCA takes a highly capable product off an existing production line and sends it through post-production modifications to better meet the identified operational requirements. The CCA is becoming well-known in the fleet as possessing unique characteristics ideal for conducting full-spectrum SOF maritime operations.

During FY14, Surface Systems awarded a contract for the low-rate initial production of five CCM Mk1 craft. CCM Mk1 is a surface mobility craft with a mission to insert and extract SOF in medium threat environments. The craft will incorporate enhanced capabilities such as shock mitigation and maneuverability and is scheduled to start operational testing in the near future.

The CCH requirement has been initially met by the transition of a technology demonstration, the SEAL insertion observation and neutralization (SEALION), to an

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operational configuration. The SEALION has been successful in the operational environment and has significantly enhanced the capabilities of the SOF warfighter. The planning for next generation CCH to replace SEALION has been initiated.

Surface Systems also provides acquisition and program management support for various legacy and in-service craft and systems such as the special operations craft riverine (SOC-R), the security force assistance craft, patrol boat-light, the maritime craft air delivery system, and the combatant craft forward looking infrared (CCFLIR) system. The legacy CCFLIR provides SOF surface craft with a day/night, high-resolution and infrared imaging capability. The next-generation replacement of the CCFLIR system has been initiated.

Recognizing the need to standardize integrated logistics support for these craft, Surface Systems implemented a major change to the sustainment strategy for the SOC-R. This change was the realignment of contractor logistics support from the original equipment manufacturer to the Special Operations Forces Support Activity. This approach streamlines and standardizes the processes and methods by which users obtain sustainment support for the craft.

PROGRAM EXECUTIVE OFFICE FOR ROTARY WING

Army Colonel John M. Vannoy leads the Program Executive Office for Rotary Wing (PEO-RW), which is responsible for providing the SOF community with the most advanced vertical lift capability available to the U.S. military. PEO-RW continues to transform the rotary-wing fleet by focusing on commonality of platforms and inventory reduction from 11 different platforms to three newer, more capable platforms, while accommodating programmed growth in numbers. The rotary-wing fleet now consists of the MH-47G Chinook, two different models of the MH-60 Black Hawk, and the A/MH-6M Little Bird. Significant emphasis has been placed on science and technology efforts in preparation for planned programs to address aircraft survivability issues to provide the most capable rotary-wing aircraft to the best aviators in the world today: the 160th Special Operations Aviation Regiment (SOAR).

Along with the Technology Applications Program Office (TAPO), Product Manager Mission Enhanced Little Bird (MELB), Product Manager Silent Knight Radar (SKR), and Product Manager SOF Training Systems, the PEO-RW mission is primarily accomplished by developing acquisition plans and aligning strategies to resources that support integration of special operations-peculiar (SO-P) mission equipment packages onto proven U.S. Army helicopter platforms. This acquisition strategy supports the SOF operator while providing SOCOM with a cost-effective method of supplying a SOF platform capable of completing worldwide SO-P missions. Both the U.S. Army and SOCOM benefit from the partnership of merging U.S. Army and SO-P components and technologies. Additionally, PEO-RW is supporting future vertical lift (FVL) development by participating in the U.S. Army-led FVL Integrated Product Team and the Under Secretary of Defense Science & Technology-led FVL Science & Technology Working Group.

MH-47G Chinook

The MH-47G Chinook is the heavy lifter of the SOF rotary-wing fleet. It has a maximum gross weight of 54,000 pounds and the ability to travel at a speed of more than 150 knots. The MH-47G provides SOF with a proven, durable workhorse that fulfills a variety of missions around the world. The MH-47G was first deployed in FY07, and it is currently supporting deployed SOF in multiple locations. The 2010 Quadrennial Defense Review authorized an additional eight aircraft increasing the MH-47G fleet to 69 aircraft. The SOF MH-47G Chinook program team delivered three of eight new-build G-model aircraft consisting of a zero-time monolithic-machined airframe and new dynamic components. The new-build Chinook will have extended range fuel tanks, improved transportability provisions, advanced aircraft survivability equipment, and a new cockpit structure with the common avionics architecture systems.

Most recently, the H-47 BLK II G-model (Renew) program of record was authorized as a SOF recapitalization/modernization initiative to address the aging fleet. The program is being executed in collaboration with the Army's H-47 BLK II F-model effort. The H-47 BLK II provides the Army and SOF an H-47 common-core structural design that reduces cumulative engineering design, production and sustainment costs. The SO-P equipment, dynamics and other applicable items will be recapitalized from the 61 current sheet-metal airframes and will be installed on newly built machined airframes, leveraging the latest H-47 technology.

MH-60M Black Hawk

The MH-60M Black Hawk is a medium assault helicopter supporting two configurations: a troop transport/assault configuration and a defensive armed penetrator configuration. The MH-60M modernization program achieved initial operational capability in 2012 and is on schedule to achieve full operational capability by 2015. Once the replacement of aging MH-60L/K aircraft is complete, the MH-60M program will provide a pure-fleet of 72 MH-60M SOF Black Hawks to the 160th SOAR. The MH-60M SOF modernization program takes Sikorsky's new-build UH-60M aircraft from the U.S. Army and modifies them with SO-P mission equipment. The MH-60M aircraft will feature the following: the common avionics architecture systems, suite of integrated radio frequency countermeasures, wide-chord rotor blades, active vibration reduction and an improved electro-optical sensor system. The most significant modification, however, is the incorporation of two 2,500-shaft horsepower engines, which will give the aircraft a high/hot capability unmatched by any H-60 variant currently fielded.

Recently, the MH-60M Block 1.0 upgrade program was initiated to provide greater directional control safety margins during certain high/hot environmental conditions and various mission equipment enhancements. The mission equipment enhancements include secure real-time video, hostile fire indicator system and other technology insertions.

A/MH-6M Little Bird

The A/MH-6M Little Bird program transforms a civilian aircraft into the MELB through a series of SO-P modifications, including an improved tail boom and tail rotor drive system, a full complement of weapon systems, an enlarged aft cargo door, an increase of the maximum gross weight to 4,700 pounds and Mark IV rails. The Little Bird supports multiple mission configurations and is capable of serving in an attack or assault role. The aircraft is in the final stages of an upgrade to Block 2.0 configuration, which provides an improved mission processor, transponder, Ethernet data bus, embedded global inertial navigation system and new ergonomic crashworthy seats. The Block 3.0 upgrade began in 2012 and addresses improved cockpit avionics, airframe structures and rotor systems and keeps the Little Bird in the fight for the foreseeable future.

Mission Equipment

The Mission Equipment program focuses on a variety of rotary-wing mission equipment improvements to include continued fielding of the suite of integrated radio frequency countermeasures, reduced optical signature emissions solution, hostile fire indicating system, secure real-time video, infrared countermeasures and mission processor upgrades. Additionally, PEO-RW has strong ties to the SOF AT&L Directorate of Science and Technology to manage pre-program science and technology efforts concentrating on future requirements to software, sensors and electronic equipment. These efforts provide a jump-start for new programs and often allow them to start at a more mature level of development.

In addition to the focus on aircraft survivability equipment upgrades, PEO-RW has addressed critical avionics systems and continues to upgrade the mission processors for each aircraft's control display units and multifunction displays. This effort supports the common avionics architecture systems by upgrading system processing power

providing flexibility to add complex software programs that will aid in route selection and flight in degraded visual environments.

The Degraded Visual Environments program builds upon science and technology efforts to address aircraft operations and obstacle avoidance under reduced situational awareness conditions. The program develops a technical solution to one of the most pressing issues in rotary-wing aviation. It will address critical aspects of reduced situational awareness common to all rotary-wing aircraft operations.

Rotary-Wing Flight Test

PEO-RW also manages risk-reduction efforts and supports cooperative research and development agreements using a manned chase aircraft and three Maverick (R-22) unmanned aircraft. This program allows for the low-cost testing of prototype capabilities under difficult and/or dangerous conditions to reduce the risk to pilots and operational aircraft. PEO-RW's program has yielded many successful results and is currently postured to support any government customer in need of testing airborne capabilities in challenging situations.

Silent Knight Radar

The Silent Knight Radar (SKR) program provides SOCOM with an obsolescence replacement for today's aging terrain following/terrain avoidance (TF/TA) multimode radars. The capabilities of SKR includes TF/TA with a low probability of interception and detection features, color displays of weather and weather intensity, high-resolution displays of prominent terrain features and detection and location of other aircraft and ships. The SKR program addresses issues of increased performance requirements, commonality across the SOF aviation community and legacy system obsolescence.

The program completed a successful developmental test readiness review and subsequently initiated developmental flight testing on the MH-47G aircraft, with near concurrent testing on the MH-60M aircraft. To date, developmental flight testing continues on schedule and will enter qualification testing in the spring of 2015. SKR achieved a low-rate initial production (LRIP) I decision in FY13 and is on target for a LRIP II decision in the spring of 2015.

Rotary-Wing Simulation

Rounding out the rotary-wing portfolio is the family of simulators and training devices that support SOF platforms and missions. PEO-RW, along with the SOF Training Systems Product Manager, provides the 160th SOAR with high-fidelity, full-motion training systems, desktop trainers and cockpit procedural trainers for the MH-47E, MH-47G, MH-60K, MH-60M and A/MH-6M aircraft that support SOCOM requirements. The combat mission simulators provide aircrews a real-world capability to practice, validate and verify tactics, techniques and procedures to support training and mission rehearsals.

The simulators and training devices are continuously updated to reflect the latest aircraft modifications and to ensure SOF aircrews are provided training systems that are reliable, technically advanced and concurrent with the operational aircraft on the flight line.

The MH-47E combat mission simulators continue to upgrade into the MH-47G combat mission simulator and the MH-60K upgrades to the MH-60M, which are scheduled to complete in FY15. The upgrades will run concurrently with the induction of newer model aircraft into the fleet, and they will accommodate increased training requirements while taking advantage of the latest simulation technology and processor advancements.

PROGRAM EXECUTIVE OFFICE FOR SERVICES

Theodore W. Koufas leads the Program Executive Office for Services (PEO-SV) and provides the SOCOM commander and acquisition executive with the acquisition leadership to improve the efficiency and oversight in the administration of all SOCOM service acquisition actions. Additionally, the office supports SOCOM, component commands and theater special operations commands with services acquisition training, requirements documentation, cost estimating, policy and process oversight and contract administration support to requiring activities.

PEO-SV is focused on the effective and efficient management of more than $1.6 billion spent each year in contracted services in support of the SOF enterprise. The acquisition professionals in the office coordinate with requiring activities throughout the enterprise to ensure scarce special operations resources are used in the most effective manner to acquire contracted services in support of the warfighting mission. PEO-SV personnel work side by side with the requiring activities' points of contact to ensure contracted services requirements are clearly articulated to support the most optimal acquisition strategy.

By exercising the services acquisition senior manager's responsibilities for governance in planning, execution, strategic sourcing and management of service contracts, PEO-SV collects, addresses and reports on all data required to provide visibility of services contracts and resource execution to SOCOM's commander and acquisition executive, the Office of the Secretary of Defense and, ultimately, to Congress as required under public law.

PROGRAM EXECUTIVE OFFICE FOR SPECIAL OPERATIONS FORCES SUPPORT ACTIVITY

Army Colonel Luke Peterson leads the Program Executive Office for Special Operations Forces Support Activity (PEO-SOFSA) based out of Bluegrass Station in Lexington, Ky. PEO-SOFSA is responsible for executing SOCOM's largest service contract vehicle, which provides a wide range of tailored contractor logistics support services to the command's SOF service components and operators worldwide. The PEO-SOFSA mission is to support the SOF community through the execution of contracting, financial management and operations oversight to ensure dedicated, responsive and cost-effective contractor logistics support services. PEO-SOFSA partners with both the SOF operator and the PEO-SOFSA prime contractor to ensure best-value logistics services and products are being provided to meet the mission-critical, time-sensitive needs of the SOF community.

PEO-SOFSA's indefinite-delivery/indefinite-quantity contract offers the full spectrum of services recognized under the elements of life cycle sustainment management (LCSM) and includes design interface; sustaining engineering; supply support; maintenance planning and management; packaging, handling, storage and transportation; technical data; support equipment; training and training support; manpower and personnel; facilities and infrastructure; and computer resources.

With more than $470 million awarded in FY14 funds to meet current and future DoD logistics requirements, PEO-SOFSA oversaw the execution of more than 245 task orders during this time frame. The majority of the work awarded is in support of aviation repair/modification, logistics teams, LCSM and supply/warehousing.

Specific examples of PEO-SOFSA work performed today include MH-60M kits and aircraft production; A/MH-6 crash damaged repairs and modifications; MH-47G modifications; C-130 refurbishments and isochronal inspections; AC130J kits and installations; C27J new equipment training and sustainment; logistics, maintenance, and reset in support of the 160th SOAR fleet of helicopters at Fort Campbell, Ky.; family of special operations vehicles modifications and maintenance support; deployment of logistics support teams worldwide; SOF Personal Equipment Advanced Requirements supply operations; and Joint Operational Stock program support. PEO-SOFSA oversees the contractor's support to meeting all the contractual small-business goals, all of which were met or exceeded in 2014.

To better support its customers the PEO established a new division, the Program Support Division (PSD), which combined the SOF Systems Sustainment Division and the Aviation Management Division from existing manpower resources. The PSD assists customers with pre-award activities and oversight of cost, schedule and performance throughout the life cycle of their task orders. The PSD ensures there are consistent processes for customers to follow when using the PEO-SOFSA Logistics contract.

PEO-SOFSA manages nearly 2.1 million square feet of administrative, production and storage space as well as 4.2 million units of property valued in excess of $3.1 billion. As part of the significant facility upgrades and approved by the state of Kentucky in 2012, PEO-SOFSA took delivery of three warehouse facilities and two storages lots in 2014, adding nearly 700,000 square feet of storage space to the PEO-SOFSA enterprise. This space is crucial to increase operational efficiencies and storage capacity and to improve facility quality. Ground breaking for the new 200,000-square-foot climate controlled warehouse is scheduled for spring 2015. The final building in our facility plan, a 67,000-square-foot maintenance and repair facility is still in planning, with a targeted ground-breaking by end of 2015.

PROGRAM EXECUTIVE OFFICE FOR SPECIAL OPERATIONS FORCES WARRIOR

Army Colonel Joseph A. Capobianco leads the Program Executive Office for Special Operations Forces Warrior (PEO-SW). The PEO is composed of 10 program management offices that exemplify the PEO-SW motto, "Operator Focused, On Time, On Target!" As trusted providers and recognized experts, the PEO-SW team provides disciplined, streamlined and dynamic life cycle acquisition of special operations-peculiar (SO-P) capabilities to ensure SOF readiness. These capabilities directly enable SOCOM SOF operators to help our nation win and continue to build a global SOF network. These capabilities span a wide spectrum of warfighting commodities that include ground mobility, visual augmentation systems, weapons, ammunition, demolition, survival and tactical casualty combat care systems. As both a resource and Program Objective Memorandum (POM) sponsor, the PEO provided execution oversight for a $1 billion active appropriation, executing 133 programs and projects along with more than 215 pre-program efforts (e.g., combat evaluations and studies). This summer, after three years as the PEO, Colonel Capobianco will transfer the PEO-SW charter to Colonel John T. Reim. In preparation for the future, PEO-SW seeks to partner with industry for innovative ways to develop and field game-changing capabilities.

PEO-SW Better Buying Power Initiatives

Embracing DoD AT&L's Better Buying Power (BBP) 3.0, PEO-SW continuously leverages best practices identified within the PEO-SW team, SOF AT&L and across DoD. The BBP focus areas make SOF programs affordable throughout the life cycle, incentivize contractor innovation and competition, streamline our processes and bureaucracy, improve our acquisition of services and professionalize our acquisition workforce. In FY14, PEO-SW implemented 73 BBP initiatives and saved more than $193 million across the Future Year Defense Plan (FYDP). PEO-SW looks forward to another successful year of providing for SOF operators in a timely and responsible manner.

Ground Mobility

The Program Management Office for the Family of Special Operations Vehicles (PM-FSOV) acquires, innovates and sustains the ground mobility fleet for SOCOM SOF operators. Always vigilant, PM-FSOV works closely with SOF operators to deliver affordable, stable and mature tactical light, medium, heavy and non-standard commercial vehicles (NSCV). The team is coordinating technology insertion roadmaps for

disciplined and agile planning to bolster ground mobility research and development programming through the Program Objective Memorandum (POM) 17. The roadmap focuses on reduced vehicle weight, increased durability, lighter-weight armor (without sacrificing protection), low-visibility antennas, reduced visual and noise signatures, transitioning to diesel engines, improved/standardized vehicle chassis and suspension and extended service life. PM-FSOV manages a fleet of 3,000 combat vehicles.

The lightweight tactical all-terrain vehicle (LTATV) is an extremely agile, ruggedized and reliable combat vehicle system and provides SOF operators with side-by-side seats (two- or four-seat) for worldwide use across a wide variety of topography and tactical scenarios from direct action to casualty evacuation. The LTATV is internally air transportable in CH-47, CH-53 and V-22 aircraft. PM-FSOV manages 780 LTATVs and annually life cycle replaces 270 LTATVs.

The ground mobility vehicle 1.0 (GMV 1.0) incorporates multiple variants of the SO-P modified high mobility multipurpose wheeled vehicle (HMMWV). For over 10 years, these medium-class wheeled tactical vehicles have performed reliably in global operations. The GMV 1.0 has heavy (M1165) and light (M1113) variants; the M1113 is airlift capable via MH-60 or larger aircraft. All variants carry the latest C4ISR packages. PM-FSOV has fielded more than 1,400 vehicles and plans to field an additional 60 this year to all components.

The NSCV is a passenger-type vehicle enhanced with mission-specific modifications to optimize ballistic protection, mobility, reliability, electrical, C4ISR, navigation and night vision capabilities while retaining its commercial appearance. The NSCV enables SOF to conduct global missions that preclude the use of service or SOCOM tactical ground vehicles. PM-FSOV has fielded 395 NSCVs, obtains full operational capability in FY15 and continues life-cycle replacements throughout the FYDP.

The GMV1.1 has a full-rate production decision scheduled for 3QFY15 and a first unit equipped date of 1QFY16. [Photo courtesy of SOCOM]

The mine-resistant ambush-protected (MRAP) all-terrain vehicle (M-ATV) is a SO-P-modified MRAP managed by PM-FSOV. The PMO has partnered with PEO-SOFSA and its prime contractor to develop and implement a CONUS inspect repair only as necessary reset project to reset 66 battle-worn M-ATVs to operational standards in an efficient and cost-effective manner. For OCONUS, SOCOM has formed a strategic partnership with Tank and Automotive Command to reset 168 M-ATVs to be ready for worldwide deployment from Europe. This will ensure all SOF M-ATVs will receive updates and upgrades in parallel with the U.S. Army MRAP fleet.

The GMV 1.1 has a full-rate production decision scheduled for 3QFY15 and a first unit equipped date of 1QFY16. GMV 1.1 will provide a lightweight, mobile, air transportable vehicle capable of being rapidly reconfigured for a variety of mission needs. This reliable and high-performance system provides access to previously denied terrain, at increased mobility, maneuverability and operating speeds. The PMO has also ensured the logistics concept and provisioning can be rapidly transitioned to the services.

Visual Augmentation Systems

The Program Manager for Ammunition and Weapons (PM-AW) is responsible for the development, fielding and life cycle sustainment of visual augmentation systems (VAS). This product area provides operators with an ability to conduct missions while operating at night, during periods of low visibility and in battlefield obscurants or bad weather. PM-AW focuses on materiel solutions for head-mounted goggles, weapon-mounted night vision sights, day scopes, handheld imagers, ground vehicle-mounted vision systems, laser range finders and targeting designators.

As part of the lethality technology insertion roadmap, the VAS development efforts include multispectral, out-of-band capability and converting analog to fused digital technology. The goal of these efforts is to add multiband flexibility for both viewing and pointing/targeting devices and improving the operator's situational awareness of the battlespace. The PM continues to focus on reducing size, weight and power. In 2014, PM-AW completed testing and began fielding an enhanced combat optical sight (optimized for 7.62mm assault rifles), an improved night/day observation/fire control device—Block III (improved targeting in all-weather sniper systems) and the handheld imager (supports improved detection ranges of friend or foe in all lighting conditions).

Weapon Systems

PM-AW is also responsible for the development, fielding and life cycle sustainment of weapon systems. These SO-P weapons have high reliability and increased accuracy and effectiveness essential to support direct action and sniper missions. The lethality technology insertion roadmap focuses on future developments to improving signature reduction of flash and sound for sniper, carbine, assault rifle and machine gun weapons. Other development efforts include improving MK17 combat assault rifle ergonometrics and SO-P machine gun capabilities.

In 2014, PM-AW continued developmental and operational testing on MK21, the latest modular precision sniper rifle. Development testing also was conducted on an improved machine gun suppressor which led to advancements in suppressor materials.

The Family of Muzzle Brakes and Suppressors (FMBS) program provides current commercial off-the-shelf signature suppression capability to minimize flash, sound and thermal signature for the M4A1 Carbine, MK13 Sniper Rifle, MK46 lightweight 5.56mm belt fed machine gun, MK48 lightweight 7.62mm belt-fed machine gun, M249 5.56mm belt-fed machine gun and the M240 7.62mm belt-fed machine gun. In 2014, the program continued testing to cross-utilize FMBS components for the Combat Assault Rifle program.

Ammunition/Demolition

The PM-AW also develops, fields and manages SO-P ammunition, demolition and breaching devices and leverages service ammunition efforts. Last year, PM-AW procured 85 million rounds composed of 53 different types of munitions. They included domestic and foreign small-caliber ammo, shoulder-fired Multi-purpose Anti-armor Anti-personnel Weapon System (MAAWS), lightweight assault weapon, cannon caliber ammo for the AC-130 aircraft, demolition items, pyrotechnics and flares and hand grenades. The SOF Small Caliber Ammunition purchases included the MK318 5.56mm round, the MK319 7.62mm round and the MK316 7.62mm round.

PM A&W has development goals to provide SOF operators greater precision and accuracy at greater stand-off ranges against high value targets (personnel and material). The munitions lethality technology insertion roadmap is focused on insensitive munitions improvements, small caliber lightweight polymer cased ammunition, reducing lead and carcinogens in projectiles and propellants (which impact operators' health during training), reducing the M3 MAAWS rifle weight and transitioning to the U.S. Army, developing a more reliable grenade body double-safe fuse, transitioning AC-130 ammunition from 40mm to 30mm in concert with armament changes to the aircraft and addressing capability gaps in demolition and breaching devices.

Soldier Protection, Survival, and Tactical Combat Casualty Care

The Program Manager for SOF Survival, Support, and Equipment Systems (PM-SOF-SSES) is responsible for the research, development, testing, fielding, sustainment and product improvement efforts for SOF operator protection, individual equipment and tactical combat casualty care and medical requirements.

The SOF Personal Equipment Advanced Requirements (SPEAR) program provides operators with survival and individual protective equipment to conduct special operations. The program designs, develops, adapts, fields and sustains SOF operator equipment to increase their survivability, mobility and effectiveness. The operator, as a platform, must be extremely adaptive and agile in reacting to the ever-changing battlefield environment and threats. SPEAR provides greater force protection to ensure survivability across a wide range of threat and climatic conditions. As part of the individual equipment and survival technology insertion roadmap, the PM team strives to decrease weight and volume to increase maneuverability and to sustain a high operational tempo. Without increasing weight and volume, the PM also looks to increase SOF survivability, lethality, mobility and communication.

As part of the survival technology insertion roadmap, the SPEAR program also seeks to advance ballistic protection technology (body armor and helmets) to provide equal or better ballistic protection without additional weight. The team strives to improve environmental protection garments by evaluating advanced materials that improve performance while reducing bulk and weight found in current systems. Optimization of signature management and camouflage initiatives is under way to provide multispectral protection cover and concealment protection for SOF operators.

PM-SOF-SSES also manages the SOF Tactical Combat Casualty Care (TCCC) program. This program provides SOF with critical, field operable medical equipment. The tactical medical technology insertion roadmap focuses on advancing medical materials and equipment to include improving medical monitoring, water resistance, fire suppression, medical training aids, miniaturization, packaging and enhanced extended care capabilities. The casualty evacuation (CASEVAC) set provides advanced materiel capabilities required to rescue, recover, sustain and transport trauma casualties from point of wounding through all phases of CASEVAC until transfer to a definitive care facility. The medic kit provides the SOF medic with an increased capability for providing advanced airway intervention, IV medications, hypothermia prevention, advanced monitoring and diagnostic capabilities and intraosseous infusions. The operator kit enables the operator to administer self-aid or buddy-aid for controlling life-threatening external hemorrhage, maintaining airways, providing fluid resuscitation and administering medications for pain and infection prevention.

During FY14, PM-SOF-SSES fielded 2,244 sets of body armor plates, 566 sets of soft armor inserts, 489 modular supplemental armor kits, 29 clandestine body armor systems, 125 Modular Integrated Communications Helmet (MICH) helmets, 4,075 future assault shell technology combat helmets, 2,735 Vision Augmentation System (VAS) mounts, 873 eyewear protection kits, 2,004 body armor vests, 2,367 load carriage systems, 122 backpacks, 1,871 protective combat uniforms, 5,143 Level 9 combat uniforms, 1,354 modular glove systems in various camouflage patterns (Area of Responsibility 1, Area of Responsibility 2, Multi-Cam), 1,912 MICH communications systems, 4,355 TCCC operator kits, 286 TCCC medic kits, 14 CASEVAC extraction kits 14 CASEVAC mobility kits, 14 CASEVAC transport kits, and 9 CASEVAC sustainment kits.

PROGRAM EXECUTIVE OFFICE FOR SPECIAL RECONNAISSANCE, SURVEILLANCE AND EXPLOITATION

Douglas J. Richardson, senior executive service, leads the Program Executive Office for Special Reconnaissance, Surveillance and Exploitation (PEO-SRSE). The PEO is responsible for the acquisition, fielding and sustainment of intelligence systems for SOF that contributes directly to SOCOM priorities to deter, disrupt and defeat terrorist threats and sustain and modernize the force in persistent ISR. PEO-SRSE's acquisition strategies continue to evolve in response to the commander's lines of operation, with an emphasis on leveraging commercial technologies to maintain leading-edge capabilities and minimize cycle time.

PEO-SRSE's broadly scoped system acquisition responsibilities include technical collection, intelligence support and identity operations supported by a uniquely organic and focused research and development program. Responsiveness, with technical depth and program management excellence, is accomplished through product line expert matrix support of PEO-SRSE program managers.

Tagging, Tracking and Locating Systems

Tagging, tracking and locating (TTL) systems and enabling technologies provide SOF with critical tools to enhance situational awareness for the planning and execution of SOF missions. These capabilities allow SOF to find, fix, exploit and analyze targets, such as enemy personnel and mobility platforms, through the emplacement of sophisticated tagging and tracking devices that feed into an integrated command and control architecture. The fielded portfolio of tagging/tracking, close-target audio and video tracking, optical tracking and close-target reconnaissance systems is continuously adapted and updated to meet dynamic SOF operational requirements across all theaters of operation.

Blue Force Tracking

The Blue Force Tracking program provides a family of devices used to remotely track and monitor friendly forces and enhance command and control, threat warning, force protection and situational awareness.

Sensor Systems

The Tactical Video System/Reconnaissance Surveillance Target Acquisition (TVS/RSTA) program provides systems in support of ground ISR that equip SOF with enhanced stand-off capabilities for both manned and unmanned special reconnaissance missions. Capabilities within the portfolio range from man-in-the-loop still/video cameras and data transmission devices to fully automated, programmable unattended and remote ground sensors and observation posts emplaced by SOF operators that support information and intelligence-gathering operations. The austere location force protection kit provides a mobile, scalable and modular solution in support of village stability operations missions, increasing situational awareness of surrounding areas. Operations planning and decision-making capabilities are further enhanced with real-time and near real-time capture and transfer of imagery and data and state-of-the-art information display and processing to support rapid, seamless transition from "find" to "fix" within a mission cycle.

Biometrics and Forensics Systems

Biometrics and forensics system equipment provide SOF with the capability to efficiently collect, examine and exploit data collected on sensitive sites and to perform timely laboratory analysis of evidence in the theater of operation. Biometric tools are also used to gather and store information on captured combatants and other persons of interest and to verify the identities of local nationals seeking employment or access to foreign and domestic installations. The collection of forensic evidence with the identity verification of personnel detained onsite produce actionable intelligence that expedites SOF decision-making processes on the ground. Exploitation analysis centers are an in-theater mobile forensic capability that provides advanced forensic analysis of evidence collected onsite.

Joint Threat Warning System

The Joint Threat Warning System (JTWS) provides SOF with signals intelligence (SIGINT) systems that enable operators to provide critical, time-sensitive actionable intelligence to operational commanders in support of force protection, threat warning, target identification and enhanced situational awareness requirements.

The JTWS system of systems (SoS) is configured into four variants: 1) Ground SIGINT Kit, lightweight mobile/body worn and team transportable (static) systems with remoting and reach-back capability configurations for SOF ground forces; 2) Air, which provides SIGINT equipment for Air Force Special Operations Command; 3) Maritime, which provides SIGINT capabilities in support of Naval Special Warfare requirements; and 4) Precision geo-location that includes a variety of capabilities supportive of ground, air and maritime operations. JTWS uses an evolutionary acquisition strategy with spiral development based on the latest improvements in technology to address the changing environment.

JTWS provides systems that are integrated utilizing common technologies and interfaces allowing operators to task, organize and scale equipment based on anticipated signal environments and areas of operations. Variants are modular and lightweight with minimal power requirements to meet SOF SIGINT requirements across a variety of specialized platforms. Due to the inherent flexibility of these systems, JTWS eliminates stovepipes and rapidly delivers new software and hardware capabilities that allow operators to task/organize equipment based on mission needs. Additionally, JTWS addresses power and weight challenges by using lightweight, alternative power sources and unique antenna designs supporting highly mobile operations by a single trained operator.

Distributed Common Ground/ Surface System-Special Operations Forces

Distributed Common Ground/Surface System-SOF (DCGS-SOF) provides a globally responsive, broad set of end-to-end fixed site command, control, communications, computers and intelligence (C4I) and mobile/tactical tasking, processing, exploitation and dissemination (TPED) capabilities for SOF-collected ISR data. DCGS-SOF is SoS-integrated across the SOF information environment and with DoD DCGS. It is focused on developing solutions that will satisfy both current and future special operations-peculiar capability gaps and provide essential organic net-centric, collaborative and distributed ISR TPED capabilities for SOF. DCGS-SOF will enable SOF to take full advantage of all available strategic, theater and tactical ISR data and exploitation support systems. It is being developed and implemented as part of the DoD DCGS family of systems and evolving joint network-centric enterprise. DoD DCGS is the processing and exploitation component of the ISR enterprise. Key to this capability is the mandated DCGS integration backbone, which provides a common standard technical infrastructure to enable required joint integration and interoperability across DoD.

DCGS-SOF has two existing programs: Silent Dagger and FMV-PED. The Silent Dagger program provides garrison and deployed SIGINT capability, and the FMV-PED program provides motion imagery processing, exploitation and dissemination.

Integrated Survey Program

The Integrated Survey Program (ISP) supports Joint Chiefs of Staff contingency planning by collecting and producing current, detailed, tactical planning data to support military operations to counter threats against U.S. citizens, interests and property located both domestic and overseas. ISP products are specifically tailored packages that provide operational information as well as intelligence data for use by DoD and the Department of State to support operational planners for counter-terrorism operations, evacuations and other rescue missions. The program supports short-notice, quick turn around of critical operational planning data during ongoing crises and contingency operations. ISP recently migrated to an end-to-end geospatial information system for collection, processing and dissemination of survey products and data. Collection equipment consists of commercial off-the-shelf hardware such as digital still and video cameras, laptops, global positioning systems, rangefinders and software applications.

Special Operations Forces Planning, Rehearsal and Execution Preparation

Special Operations Forces Planning, Rehearsal and Execution Preparation (SOFPREP) serves as the intelligence focal point for production of enhanced geospatial intelligence (GEOINT) data (e.g., maps, imagery, and terrain data) and classified high-resolution three-dimensional scene visualization databases in support of SOF operators worldwide. SOFPREP builds the common environment for SOF modeling and simulation (M&S), generates SOF authoritative data and enables the rapid discovery, retrieval and reuse of high-fidelity GEOINT data across SOF planning, operations, intelligence and M&S. SOFPREP generates visual, sensor and System Authorization Facility (SAF) databases for SOF mission training, rehearsal and preview systems so operators know the area they will fight in before they arrive. SOFPREP uses government and commercial off-the-shelf and open-source systems to acquire and consolidate elevation, manmade and natural cultural features, maps, imagery and other intelligence source data required for database production. Systems validate the geospatial accuracy and certify the use of data in the completed databases and datasets. Enhanced GEOINT and three-dimensional scene visualizations are also archived for use in contingency planning, humanitarian assistance and response to natural disasters. Geospecific databases use common databases and other industry-standard formats. The SOFPREP mission is to help SOF units set the course with superior knowledge of the battlespace they will be operating in before they arrive.

Focused Research, Development, Test and Evaluation

The Rapid Capability Insertion (RCI) office oversees various research, development, test and evaluation efforts that directly align to programs of record within PEO-SRSE's portfolio. RCI provides enabling capabilities through three focus areas: tactical exploitation of national capabilities (TENCAP), special reconnaissance capabilities (SRC) and clandestine tagging, tracking and locating (CTTL). The key to PEO-SRSE's success in this area is continuous interaction with the user and acquisition communities of interest, including their involvement in project selection and transition planning.

The TENCAP program is an intelligence systems research and development rapid prototyping effort focused on national and commercial space systems. TENCAP seeks to improve the combat-effectiveness of SOF operators by leveraging service and national agency development efforts relating to space-based intelligence and communications technologies and systems.

The SRC program identifies, integrates and operationalizes new capabilities to perform persistent surveillance and clandestine preparation of the battlespace against a variety of targets and mission requirements. SRC develops and delivers unattended ground sensors and other TTL systems to satisfy SOF operator-defined capability gaps.

The CTTL program exploits emerging technologies to locate and track targets or items of interest. CTTL is a science and technology development and prototyping program that is unique in its focus on SOF operator-defined capability gaps and selection of highly promising technology solutions.

TENCAP, SRC and CTTL resource the foundation of future capabilities that will transition into PEO-SRSE managed programs of record as evolutionary technology insertions. Some recent examples of capabilities developed in the RCI portfolio include SOF-focused CubeSats, advanced electronic miniaturization/packaging, long-duration/range sensors and improved targeting capability for small unmanned aircraft systems.

PEO-SRSE's special communications enterprise provides SOF users with continuously improving special communications capabilities and services with global, on-demand connectivity between elements (field-to-field, field-to-base and base-to-field) within an enterprise architecture.

JOINT ACQUISITION TASK FORCE-TACTICAL ASSAULT LIGHT OPERATOR SUIT

In 2013, the former commander of SOCOM, Admiral William McRaven, brought the nation's attention to a significant philosophical and technological shortfall that SOF has quietly endured since the Battle of Mogadishu in 1993. This shortfall revolves around the lack of a comprehensive and integrated approach to the equipping of SOF operators for high-risk missions that fully leverages the capacity and expertise in the DoD Research and Engineering Enterprise. This shortfall is best exemplified by the comparisons of technological evolution of equipment for the combat soldier verses air mobility platforms. If you compare a WWI era biplane to an F-35 Joint Strike Fighter, it is immediately apparent that astounding and exponential progress has been made in tactical aircraft. However, if you compare a WWI era soldier with a present day SOF operator, there is a markedly less dramatic evolution to the present-day ensemble. Even with sustained combat since 2001 to drive innovation, there has yet to be a revolutionary approach to equipping our commandos with their (ever-increasing) tools in a comprehensive, streamlined and systematic manner. To address the issue, McRaven tasked SOF AT&L to establish Joint Acquisition Task Force-Tactical Assault Light Operator Suit (JATF-TALOS) in late 2013 to pursue an ambitious vision to deliver a functional, armored combat suit prototype by August 2018. The intent of the initiative was reemphasized by General Joseph Votel in January of 2015 when he stated at the National Defense Industrial Association Special Operations/Low Intensity Conflict Symposium, "TALOS was chartered to explore and catalyze a revolutionary integration of advanced technologies to provide comprehensive ballistic protection, peerless tactical capabilities and ultimately enhance the strategic effectiveness of the SOF operator of the future."

To accomplish this, JATF-TALOS is leveraging a vast array of service acquisition experience and innovative acquisition tools and finding partners in academia and

industry. JATF-TALOS must solve multiple difficult problems while maintaining the flexibility to adapt and incorporate emergent technologies that may have significant implications for the overall system. The priority focus of JATF-TALOS is to deliver prototypes in rapid, successive iterations that demonstrate solution pathways to protect our operators in their most vulnerable moments with novel armor materials and configurations while providing an integrated toolset that provides enhanced situational awareness and lethality at any point on a mission in very demanding and hostile environments. "JATF-TALOS supports my priority to prepare for the future, ensuring our SOF are ready to win in an increasingly complex world," said Votel.

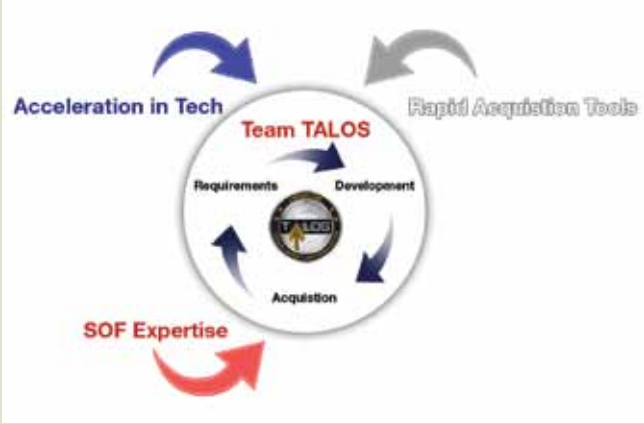
Empowered by SOCOM's acquisition executive, Jim Geurts, JATF-TALOS implemented an innovative and unique business model to pioneer a faster, more agile acquisition process for a novel human-centered platform. Geurts saw a need to streamline the acquisition process to realize the end-state product in the required time frame, which necessitates building a diverse team of operations and acquisition professionals that employ nontraditional methods and technology development approaches.

A foundation methodology used by JATF-TALOS is to create collaborative environments for ideation and rapid prototyping. The TALOS team hosted several multiday industry outreach events in various locations throughout Tampa that focused on the discovery of potential TALOS-relevant technologies and fostering partnerships with industry. With more than 70 participants, the team identified novel companies who had never previously worked with DoD. In addition, JATF-TALOS utilized innovative acquisition tools and processes, such as a blanket cooperative research and development agreement, to increase the pace of collaboration and prototyping, thus accelerating the developmental timelines.

JATF-TALOS in itself has implemented a nontraditional task organization, with embedded SOF operators in an effort to provide engineers and acquisition professionals with real-time feedback on the feasibility of their proposed solutions. The team has also formed an extended network with national labs and industry to keep a pulse on and drive acceleration in technology, and they are developing innovative rapid acquisition tools.

Another unique business practice came in the culmination of JATF-TALOS's first year, with the inaugural TALOS Rapid Prototyping Event in St. Petersburg, Fla., in the summer of 2014. The 60-day event focused on tackling the complex design and engineering problems of TALOS through collaboration among industry, academia and government and the development of TALOS design concepts and technology feasibility assessments. More than 200 experts from a broad range of specialties participated and produced an informed roadmap for the TALOS initiative, accelerating the overall design timeline. The event concluded with the presentation of those concepts and the delivery of the first generation exoskeleton prototypes to Admiral McRaven and senior government leaders. Events like this are imperative to JATF-TALOS. As Geurts said, "If we can close the distance between operator, acquirer and technologist, then I can create things that each would not independently create on their own." He added, "Industry sent people there not because they had a product to sell, but an expertise and they wanted to contribute … it's a great model."

JATF-TALOS followed the summer rapid prototyping event with a fall user assessment of the first-generation exoskeleton prototypes at Marine Corps Forces Special Operations Command Headquarters. The event was designed to gain objective SOF operator feedback on the prototypes and build a baseline of test criteria for future prototypes. It featured events where performance and biomechanical motion data were captured from operators, representing each of the SOF component commands, wearing the exoskeletons. The test team recorded experiential and statistical data from each user during a series of tests in a gym, open field and obstacle course. User feedback was positive; they noted the benefit of an exoskeleton carrying their combat load weight, reducing impact on their bodies.



This graphic highlights some of the unique elements that are incorporated into the JATF to help the team meet the August 2018 delivery date for the first tactical prototype. [Photo courtesy of SOCOM]

In year two, JATF-TALOS continues to implement rapid prototyping events and smaller, subsystems-focused rapid prototyping sessions as platforms to iteratively accelerate TALOS design considerations, evaluations and integration. There will be subsequent rapid prototyping events in the summer and fall time frame, along with the delivery of the third-generation exoskeleton prototypes. The JATF will also sponsor prize challenges to further support and develop unique technologies, reach a broad spectrum of nontraditional solution providers and accelerate problem solving. SOCOM, through JATF-TALOS efforts, was only recently granted prize challenge authority, and TALOS completed its first prize challenge on digital optics latency in fall 2014. Other TALOS prize challenges for power, armor, exoskeleton and biomechanical modeling and simulation development are planned for the future.

While the ultimate focus of TALOS remains the development of a prototype combat suit, the JATF has identified numerous potential technology transitions for future use by SOF, service or—even in the grand scheme—benefit law enforcement officers, firefighters, first responders and health care providers. After just one year, two promising spinoff candidates for rapid transition to SOF components have been developed: the passive first-generation exoskeleton and reduced form factor communications equipment with novel antennae designs.

The TALOS team will continue to be innovative, nimble and reliant on other experts and centers of excellence in its research and engineering approach to reach the goal of a prototype with revolutionary improvements in operator capability, lethality and survivability by August 2018. "Although many significant challenges remain, our goal for a [first article tactical] prototype suit by 2018 is on track right now," said Votel of the TALOS initiative.

DIRECTORATE OF SCIENCE AND TECHNOLOGY

Anthony J. Davis leads the SOF AT&L Directorate of Science and Technology (SOF AT&L-ST). Its updated vision is to "discover, enable and transition technologies to provide an asymmetric advantage for special operations forces." Davis's decision to target "asymmetric advantage" focuses the directorate's efforts more on the outcome rather than on specific technologies or capabilities. SOF AT&L-ST continues to pursue concepts and technologies that energize approaches to deliver capabilities to SOF through coordination with SOCOM program executive offices (PEOs), component commands, theater special operations commands (TSOCs), the SOF user community, and research and development collaboration with other government agencies.

S&T—Supporting the SOF Operator

SOF AT&L-ST has aligned itself to provide better linkage between technology discovery, full-spectrum S&T support and SOF material acquisition efforts. SOF AT&L-ST has developed a revised strategy to support its major lines of operation: discover,

enable and transition technologies. SOF AT&L-ST's primary emphasis areas across these lines of operation are to involve the warfighter, increase speed and manage inherent risk.

Discover—broken down into technology scouting, technology insertion roadmap development and red teaming efforts. Previously, scouting was S&T's main focus area in discovery, but they now work more closely with the PEOs to identify technology risk and red teams to inform threat-related gaps. In addition, the eight SOF AT&L-ST Technology Development Working Group (TDWG) leads are tasked to perform technology scouting in support of their respective technology areas.

Enable—changed from develop, enable recognizes the majority of investment in SOCOM technology gaps comes from industry, academia and other government organizations. To increase SOF AT&L-ST's focus on leveraging this investment, items are broken down into internal projects, external projects and studies. These are broad categories, but intended to capture S&T direct investment, influence of indirect investment on SOF AT&L-ST's behalf, and conceptual work with industry, government laboratories and others to further understand technologies or their application (studies).

Transition—added as a focus area for S&T to recognize SOF AT&L-ST's desire to ensure limited resources support command validated requirements. SOCOM PEOs have approximately 80 percent of the command's research, development, test and evaluation (RDT&E) funds ($411 million of Budget Activity 7) and more than $4 billion annually of procurement funding—SOCOM's primary capability to purchase and deliver capability to the SOF warfighter. In recognition of this, SOF AT&L-ST added a third hat to its workforce, providing one dedicated S&T representative per PEO to be the focal point for communication and understanding of each office's roadmaps, technology gaps and potential transition points. SOF AT&L-ST is working closely with the SOF user community, PEOs and components to provide a more rapid, successful transition of technologies into acquisition programs of record.

SOF AT&L-ST has now formed eight TDWGs: 1) biomedical/human performance/biometrics; classified; C4; fires/scalable effects weapons; mobility; optical; protection; and power and energy. TDWGs are composed of component commands, TSOCs, PEOs, other headquarters directorate representatives and other invited subject-matter experts. TDWGs meet at least monthly to discuss, evaluate, plan and monitor technologies. These TDWGs are the primary mechanism to: 1) understand technology gaps, 2) document and prioritize gaps and 3) evaluate industry broad agency announcement (BAA) proposals and recommend final candidates for investment.

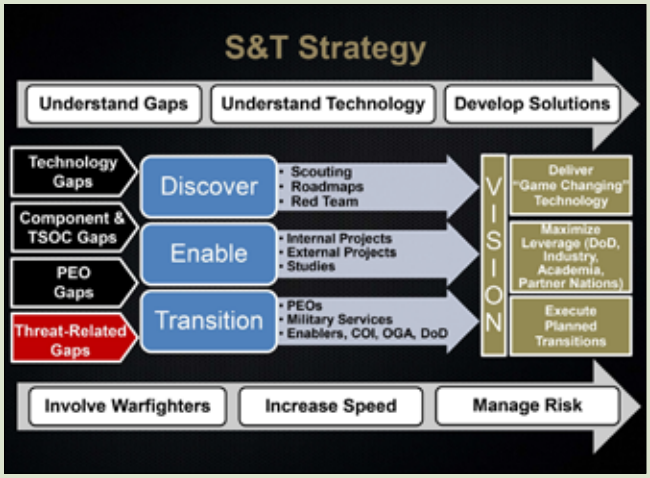
A recent addition is the focus on SOCOM PEO gaps. TDWGs facilitate transition paths between S&T and acquisition programs of record. The SOCOM acquisition executive directed each of the PEOs to develop technology insertion roadmaps, roadmaps that decompose their capability (platform) roadmaps into individual technologies, outline when they are needed and identify areas for potential investment of RDT&E to burn down the risk in a particular technology. Each of the TDWGs has been tasked with analyzing these roadmaps and developing specific plans for guiding S&T investment in their portfolio technology area to meet the roadmap gaps. In addition, SOF AT&L-ST has added a portal page that identifies the planned transition strategy (including receiving PEO/PM name, funding and schedule) for each S&T project.

SOF AT&L-ST has also renewed its focus on threat-related gaps. This effort is focused on a red team type understanding of the technology focus and investment of current and future adversaries to target SOF technology development on areas where they may be reducing our asymmetric advantage.

S&T Broad Agency Announcement Appendices

SOCOM component commands, Joint Special Operations Command (JSOC), and TSOCs provide a list of their prioritized S&T gaps the TDWGs combine with PEO technology insertion roadmap gaps.

SOF AT&L-ST uses a consolidated and persistent five-year SOCOM S&T BAA to publish S&T appendices that communicate specific technology areas of interest for requesting white papers, typically three to four times each year. Each TDWG conducts S&T capability gap socialization and prioritization, develops language for use in SOF AT&L-ST BAA appendices and provides recommendations for prioritization and vetting



of proposed S&T initiatives. SOF AT&L-ST BAA appendices are released by SOF AT&L's Directorate of Procurement to Federal Business Opportunities (www.fbo.gov). White papers submitted against the SOF AT&L-ST BAA are reviewed and prioritized by the TDWGs according to SOF capability gap applicability, technical maturity and relevance and affordability. Full proposals are then requested and prioritized for potential funding.

SOF AT&L-ST reviews TDWG prioritized projects to produce a composite prioritized project list that can be funded with available Major Force Program-11 (MFP-11) RDT&E resources or, if below the MFP-11 funded "cut-line," provided to components and other services and agencies looking for leverage opportunities.

SOF AT&L-ST continues to strengthen coordination and collaboration with external organizations. SOF AT&L-ST aligns SOF priority needs with technology enablers and developers, focuses ongoing efforts across the S&T enterprise and identifies additional innovation required to address these needs. Many organizations' research and development activities often overlap SOF interests—through increased collaboration SOF AT&L-ST has vastly improved coordination among various research organizations to more efficiently deliver technology to overcome SOCOM's technology challenges.

Biomedical BAA

SOF AT&L-ST also focuses robust efforts in the medical research and development arena to discover new life-saving technologies that can benefit our SOF operators at the point of injury, often in remote, denied areas. SOF AT&L-ST provides program management and funding for biomedical research and development initiatives. SOF AT&L-ST closely coordinates with SOCOM's command and component surgeons for SOF biomedical needs and project selection to close these needs through SOCOM's Biomedical RDT&E Advisory Group and Biomedical Initiatives Steering Committee. SOF AT&L-ST, in coordination with the SOCOM command surgeon's office, develops and releases an annual biomedical R&D BAA, typically in February, which allows the committee to select and prioritize special operations-peculiar biomedical research and development initiatives for funding and execution.

Small Business Innovation Research/ Small Business Technology Transfer

SOF AT&L-ST manages SOCOM's Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) programs that support the full spectrum of the directorate's high-priority commodity areas. The SBIR/STTR programs stimulate technology innovation in small businesses, awarding contracts to discover, develop and rapidly insert new capabilities to solve SOF needs. The SOCOM SBIR/STTR Program Office awarded eight Phase II contracts in FY14 and two in FY15, with nine more anticipated in FY15. In addition, the SBIR Program Office anticipates approximately 21 SBIR Phase I awards as a result of the SOCOM topics published in the now-closed DoD FY15.1 solicitation. The next SOCOM call for topics for inclusion in the DoD FY16.1 SBIR/STTR solicitation is scheduled for June 2015.

Technical Experimentation and Demonstrations

SOF AT&L-ST manages and conducts Technical Experimentation (TE) events throughout the year to rapidly assess technology maturity based on SOCOM Component-identified areas of need and to provide early technical feedback to developers. Typically, three annual TE events are held at various installations in the continental United States, and each has operational themes to capture broad technology areas of interest.

TE events are open to DoD and other government agencies with similar technology needs as SOCOM. Participants at the TE events include SOF operators, government technology subject-matter experts, and technology developers (including academia, research labs and industry). A typical TE event features approximately 40 separate experiments.

The payoff for participating technology developers is the ability to interact with SOF operators in a field environment, identify solutions to high-priority SOF needs and assess the maturity and utility of potential military application of a wide variety of technologies. SOF AT&L-ST is developing a tablet-based application to allow fast and effective capturing of TE technology evaluations, insertion into a central database and provision of a summary report to technology demonstrators.

Information on TE events can be found at: http://www.socom.mil/sordac/pages/expwithus.aspx.

TE also has its own social networking sites for collaboration:

www.facebook.com/socomte
www.tinyurl.com/linkedin-socomte
www.twitter.com/socomte
https://plus.google.com/u/0/102310227118909663974/posts

Demonstrations showcase SOF-related technologies, assess military utility and help develop complementary concepts of operations. Demonstrations often leverage resources from different sponsors and serve to accelerate technology insertions into acquisition programs. SOF AT&L-ST also supports the Office of the Deputy Assistant Secretary of Defense's Emerging Capability and Prototyping program and conducts independent Advanced Technology Demonstrations.

Achieving the S&T Vision

SOF AT&L-ST supports USSOCOM's strategic planning process through the identification of transformational technological opportunities and technology opportunities for insertion into ongoing programs of record to support the SOCOM commander's five priorities:

- Ensure SOF readiness—The right people, skills, and capabilities … now and in the future
- Help our nation win—Addressing today's challenges and keeping the nation safe
- Continue to build relationships—Global understanding and awareness that creates options
- Prepare for the future—SOF ready to win in an increasingly complex world
- Preserve our force and families—Short- and long-term well-being of our SOF warriors and their families

SOF AT&L-ST serves as a key enabler of the SOF AT&L team to fulfill future SOF operator needs, and the directorate is well-positioned to support the command's strategic vision by enabling development efforts with technologies that provide an asymmetric advantage for SOF. ST puts the "T" in SOF AT&L.

DIRECTORATE OF ACQUISITION COMPTROLLER

David M. Nuchols leads the SOF AT&L Directorate of Acquisition Comptroller (SOF AT&L-AC), a flexible, surge-capable organization dedicated to supporting the procurement, delivery and sustainment of special operations-peculiar equipment from cradle to grave. The directorate prepares all acquisition budget submissions, analyzes the organization's financial health and reports trends and recommends funding-related courses of action to the acquisition executive, program executive officers and directors. SOF AT&L-AC also oversees the development, integration and presentation of briefings to congressional staffers and reviews all congressional requests for information to ensure financial aspects and programmatic impacts are considered.

In FY14, the directorate managed $3.5 billion; processed more than 6,700 financial documents in support of the day-to-day mission, supported the development, submission and defense of SOCOM's FY15 president's budget request and guided the SOF AT&L development and submission for the program objective memorandum for FY16–20. The financial execution module of the acquisition management system 3.0 has been released and the congressional request for information portal tool has been expanded for use across the entire SOCOM enterprise. These tools assist in accomplishing the mission and seek to improve SOF AT&L's financial processes, controls and information as we work to achieve compliance with the requirements of financial improvement and audit readiness objectives.

Other tools in use include an automated funds distribution and tracking system as well as an automated calculation and reporting of travel and services caps. Portal-based financial management tools provide transparency to all stakeholders through visibility into financial management processes that enable SOF AT&L to accomplish its mission of providing special operations-peculiar equipment and materials to the SOF operator.

J-4/DIRECTORATE OF LOGISTICS

Army Colonel Steven L. Allen leads the J-4/Directorate of Logistics in planning, coordinating, synchronizing and integrating operational and strategic logistics and sustainment strategy in coordination with and in support of the unified commands, services, components, TSOCs, joint staff and other government agencies.

The key J-4 logistics functions routinely performed for SOF include:

- Develop, coordinate and implement special operations-peculiar (SO-P) logistics plans, policy and strategy
- Coordinate planning and execution of logistics support to SOF exercises and operations
- Maximize use of service-provided logistics capability to enable SOF superiority
- Provide comprehensive materiel management of SO-P equipment
- Provide joint property book asset accountability, asset visibility, availability and acquisition life cycle systems management
- Rapidly deploy materiel/equipment, including bare base construction
- Support rapid acquisition of SO-P equipment/materiel and approve sustainment plan/cataloging strategy in the fielding and deployment releases
- Monitor equipment readiness/preparedness in the defense readiness reporting system
- Provide multinational planning and coordination for equipment/logistics support with allies and partner nations through the acquisition cross-servicing agreements program
- Maximize value of Major Force Program-11 (MFP-11) by offering logistics solutions from the SOCOM enterprise perspective (all SOF assets available)
- Explore opportunities to transition SO-P equipment to service-common.

Sustainment Division Materiel Branch

The J-4, in conjunction with PEO-SOFSA and other activities, are in the process of developing a SOF inventory control point (ICP) construct to perform wholesale management of SO-P materiel with a source of supply of H9D. This ICP construct allows SOF item managers to right-size their inventory to support customer requirements while minimizing their investment.

The systems integration section in conjunction with the cataloging section implemented the catalog request tool with the Defense Logistics Agency Logistics Information Services for the establishment and maintenance of national stock numbers. The cataloging request tool reduced the cataloging turnaround time from 96 hours to 24 hours.

The munitions section provided pre-program objective memorandum (POM) 17 and post-POM 17 munitions sufficiency assessment reports to the chairman of the Joint Chiefs of Staff, the under secretary of Defense Acquisition, Technology, and Logistics and the under secretary of defense special operations/low intensity conflict. The assessment reports identified out-year munitions shortfalls and mitigation plans.

The J-4 Retrograde Working Group, SOF Equipment Recovery Team and Joint Property Management Cell, with assistance from key enablers at Army Materiel Command (AMC), Army Sustainment Command and CENTCOM Materiel Recovery Element, facilitated the turn-in of more than $1.25 billion of excess SOCOM equipment. Over 60 percent of this was turned into Defense Logistics Agency Disposition Services (DLA-DS) in Afghanistan for disposal. Additionally, the Joint Property Management Cell (JPMC) held the first property management and maintenance workshop, which assembled all TSOC and component representatives to discuss enterprise issues associated with the management of authorizations, property and maintenance. The JPMC also implemented tools designed to establish asset visibility for more than $1.3 billion of SO-P materiel.

The headquarters support section continued with establishing a baseline inventory for Headquarters (HQ) SOCOM. This baseline also included the implementation of an automated information technology tool to facilitate materiel identification and establish accountability for $170 million of HQ SOCOM property. The Headquarters Support section is in the process of migrating the oversight and management of HQ materiel from J4 to the HQ SOCOM commandant.

The program support section completed a comprehensive review of the joint operational stocks (JOS) portfolio with SOF operators. The results of the comprehensive review will establish requirements via the Special Operations Forces Capabilities Integrations Development System process and replace legacy equipment with current technology, introduce new capabilities, eliminate technology that is no longer required and set the depth of the inventory based on documented demands. Once the process is completed with JOS, the same process will be implemented on the environmental preparation sets.

SOF Joint Sustainment Enterprise

In an era of zero personnel growth and constrained budgets, SOF AT&L must enable better enterprise visibility of sustainment functions and the ability to make informed decisions across the sustainment enterprise. We must strive to become more effective and/or efficient, without impacting responsiveness to the warfighter. We must also meet financial improvement and audit readiness goals established by the secretary of defense and required by Congress to become fully audit ready by September 30, 2017.

The SOF Joint Sustainment Enterprise (SJSE) is a multi-year initiative consisting of numerous mutually supporting projects. The SJSE integrated planning team will provide SOCOM and SOF AT&L with an improved, information-enabled, transparent, enterprise view of SOF logistics, without impacting readiness, to achieve two main goals/business opportunities:

- Establish and maintain comprehensive enterprise logistics stewardship of SOF assets to enable better decision-making and improve SOF logistics effectiveness
- Improve SOF logistics efficiency and reduce total cost of ownership without negatively impacting the warfighter in an uncertain and evolving fiscal future.

Acquisition and Sustainment Branch (J4-SA)

The Acquisition and Sustainment Branch (J4-SA) is responsible for providing SOF AT&L with subject matter expertise on life cycle logistics and equipment maintenance. J4-SA teams acquisition logisticians with program executive offices to provide required support through direct interface with program management offices, other SOCOM organizations, components and TSOCs to field, support, sustain and modernize SOF equipment worldwide. Logisticians diligently support existing acquisition programs while also providing rapid response to emergent warfighter requirements as identified through combat mission needs statements and urgent deployment actions. J-4-SA assists in the preparation and staffing of several important documents relevant to acquisition activities, including single acquisition management plans, material fielding plans and fielding and deployment releases. Further, logisticians ensure the product support elements are adequately addressed during system development and supportability and sustainability are integrated throughout the acquisition life cycle. They collect and submit required logistics information to catalog SO-P equipment and enable initial and end item accountability. Additionally, acquisition logisticians perform independent logistics assessments for SO-P equipment and systems procured with MFP-11 funds to determine viability of support strategies necessary to meet operational requirements. Lastly, J-4-SA provides subject-matter experts in direct support of SOCOM's flying hour program office to track and report U.S. Army Special Operations Command and Air Force Special Operations Command aircraft inventories and flying hour rates.

Operations, Plans, Strategy and Equipment Readiness Division

The J-4 Operations, Plans, Strategy and Equipment Readiness division (J-4-O) serves as the nexus for internal and external logistics planning, coordination and execution of the J-4/Directorate of Logistics' logistics sustainment efforts. The primary focus is on operations planning, strategy, doctrine development and equipment readiness assessments by leveraging the capabilities of the Office of the Secretary of Defense, joint staff, global combatant commands, services, components, TSOCs, SOCOM directorates and other government agencies.

The division's mission is to synchronize and coordinate worldwide logistics support for approximately 66,000 SOF personnel executing worldwide contingency operations. J-4-O assigns matrixed logistics officers to the J-33 regionally-focused global support group and J-3-AFG within the SOCOM J-3 Directorate of Operations; J-5/Directorate of Strategy, Plans and Policy; Global Mission Support Center; and the International SOF Coordination Center (ISCC) as required. These embedded logistics officers maintain situational awareness of theater-specific requirements and, when required, deploy to assist TSOC and Special Operations Joint Task Force—Afghanistan missions. They actively coordinate logistical solution sets, including leveraging the combat mission needs statement, 1208 program and other similar processes.

Across the board, J-4-O has supported classified combat operations in multiple theaters. A key effort during the year was implementation of the secretary of defense's "Forces For Memorandum" where SOCOM assumed new combatant command responsibilities including equipment readiness reporting of the TSOCs. J-4-O has been a key contributor to development of the draft campaign plan for global special operations, ultimately to enable persistent presence of SOF in support of global geographic combatant commanders' requirements. J-4-O's Afghanistan SOF equipment retrograde team (SERT) provided disposition instructions and a successful retrograde strategy of more than $1 billion of SO-P equipment in Afghanistan through various options with the appropriate SOF AT&L PEO/PM disposition instructions to the SERT teams while maintaining total asset visibility and joint property accountability. Other J-4-O initiatives included support to the 1208 program, acquisition cross-servicing agreements with partner nations, Africa Command basing strategies,

forward-positioned activity sets for SOF and improvements in operational contracting support to SOF. J-4 also coordinated with the Army Corps of Engineers to provide an engineer liaison officer team to assist the command in evaluation of strategic engineering issues and to help create an operational engineering cell within the SOCOM Command Engineer. Finally, J-4-O worked with PEO-SOFSA to identify operational requirements for the mobile technology repair complex to provide rapid repair of equipment/materiel from forward locations on the battlefield and to transition the complex to an approved POM-funded program of record.

DIRECTORATE OF PROCUREMENT

Air Force Colonel Paul A. Bugenske leads the Directorate of Procurement (SOF AT&L-K). Its mission is to rapidly provide contracting expertise resulting in superior technologies, equipment and services for SOF worldwide. To meet this challenging mission, SOF AT&L-K's vision is to be the trusted contracting enterprise providing rapid and innovative support to SOF worldwide. SOF AT&L-K directly supports SOCOM, its components, and the theater special operations commands. SOF AT&L-K awards command-wide, large-dollar special operations equipment and performance-based service contracts. It fulfills its mission through 22 contracting offices located throughout the continental United States; each office is geographically situated to provide support to a particular SOCOM program executive office, directorate or service SOF component or unit. Additionally, SOF AT&L-K manages contingency contracting operations in support of overseas contingency operations.

In 2014, SOF AT&L-K awarded a number of key contracts, including the Combatant Craft, Medium Mk 1 indefinite-delivery/indefinite-quantity (IDIQ) contract valued at $400 million over eight years. The directorate also awarded a $95 million IDIQ contract to establish a small business for SOF Gen V body armor, which will improve the survivability and mobility of SOF, maximizing ballistic protection while minimizing weight, bulk and heat stress burdens. In FY14, the command competed 74.9 percent of total dollars obligated.

SOF AT&L-K strives to apply innovative and streamlined contracting practices in every acquisition process. Within DoD and through the military departments, it may take several weeks for a proposed contract award to be approved. In contrast, SOCOM can approve contract awards in just a few days, or less, if needed. This streamlined process can be attributed to several factors. First, SOCOM has been delegated its own procurement authority. Second, many of SOCOM's acquisition approval authorities are resident at the same location as the program and contracting teams at the headquarters. Third, contract quality reviewers participate in integrated product team meetings and other early planning meetings to help expedite the approval process and to minimize misunderstandings rather than "inspect quality into the product" in the final phase of the process before contract award. Collectively, these factors effectively minimize the organizational distance between the contracting officer and the approving official, which results in expedited approvals.

By using innovative techniques, sustaining an intentionally flat organizational structure and streamlining procurement processes, SOF AT&L-K is able to execute rapid acquisitions crucial to the success of our SOF warriors participating in overseas contingency operations. Each day, on average, SOF AT&L-K awards 46 contracting actions worth more than $12 million.

Acquisition Operations Office

Navy Commander William E. Boucek leads SOF AT&L Acquisition Operations. The office, composed of four divisions, synchronizes operationally focused acquisition activities within SOF AT&L to provide better support for SOF operators and enablers.

Policy and Management Division

This division includes co-located subject-matter experts for the functional areas of acquisition, procurement, logistics, system safety engineering and developmental testing. Partnering with SOF AT&L's Directorate of Acquisition comptroller to create an integrated team, they synchronize policy and direct several SOF AT&L-wide programs. The division staffed countless regulations, implementing instructions and policies while maintaining the core set of SOCOM directives. Additionally, they implemented monumental improvements to the SOF AT&L portal, enabling efficient management and oversight for PEOs and PMs and their respective programs of record.

The team defined, integrated and implemented an automated better buying power (BBP) "all-in-one" portal-based solution for the SOF AT&L enterprise. They furnished BBP training, references, reporting and metrics to reduce PEO and PM data entry workload. This effort increases BBP information standardization, facilitates efficient program management and automates efficient tracking and reporting.

The system safety engineering and developmental test team members continue to support the joint services weapon and laser system safety review process, standardizing non-platform-level engineering and safety tests, the fielding and deployment release process and multiple other efforts in support of PEOs, PMs and the SOF components. Their work accelerates the fielding of SOF equipment while maintaining adherence to pertinent regulations and best practices; their efforts cumulated in the publishing of DoD Manual 5000.69. The team also supports the Office of the Secretary of Defense joint non-lethal weapons test and evaluation working integrated product team.

During FY14, the policy and management team conceived, developed and implemented an innovative, portal-based comprehensive process and set of tools to provide and educate users and customers a consistent, accurate and easily used set of pictures (portal page views) of policy requirements, reference documents, training aids, metrics and programs. Their milestone document identification (MDID) tool identifies all statutory and regulatory actions and associated documents required for all program types and specific decision points within any program as well as the source of the specific requirement. MDID provides easily applied filters allowing tailoring of requirements based on specific program needs and specific decision points. The filtered set of requirements establishes the program's set of required key documents, which are tracked via a document compliancy tool. MDID provides users the single, authoritative source of all requirements. The tool is linked to a policy vault (the single authoritative source for resource documents) containing or linking to all of the different policy documents so users can easily—with just a few clicks—access reference documents. The team's policy roadmap provides a single view of required documents and actions grouped by functional area with links to pertinent SOCOM-specific policy documents. The roadmap links the required documents identified in MDID to the most current templates, instructions, guidance, training, videos and examples of that required document; it also provides links to external sources of additional information. Establishing roadmap and vault allowed for the creation of interactive portal pages for programs such as BBP, Management Internal Control Program (MICP) and Quarterly Management Reviews (QMRs) managed by the team. BBP, MICP and QMR provide near real-time portal-based execution, management and metrics. The roadmap links to portal pages for those programs.

Strategic Operations Division

This division connects the joint staff, components, theater special operations commands and national mission force to the SOF AT&L enterprise in support of 1208 operations, Syria train and equip, and combat mission needs statement requirements for current and emerging operations. Strategic Operations synchronized the execution of $15 million in acquisition efforts, equipping 16 named operations in the Central Command, Africa Command, European Command and Pacific Command areas of responsibility. These efforts directly supported the SOCOM commander's vision for winning the current fight and enhancing the global SOF network.

International Operations Division

The International Operations (IO) Division supports: 1) Special Forces Equipment Capability (SFEC) International Agreements, 2) International Capability Development Working Groups (CDWGs), 3) Foreign disclosure/technology transfer and 4) Office of the Secretary programs.

SFEC International Agreements—IO performed national program manager and international program coordinator functions in management of SFEC bilateral memorandums of understanding (MOUs) with U.K., Australian and Canadian SOF, supporting multiple SFEC capability working groups. As principal U.S. negotiator for the 4Eyes SOF Capability Development (CD) MOU, IO achieved draft final agreement to 4Eyes SOF CD MOU, with MOU signature planned for summer 2015.

International CDWGs—The team continued monthly CDWG battle rhythms of engagement and information sharing under the U.S.-Norway Special Forces Terms of Reference (TOR). They negotiated and achieved final signature of a similar U.S.-France TOR, and they supported CTTSO's CTRD bilateral reviews with the United Kingdom, Australia, and Canada. The team also established monthly battle rhythms in support of the global SOF network for the International Acquisition Working Group, including J-3-I FLOs in appropriate SOF AT&L activities.

Foreign Disclosure/Technology Transfer—IO coordinated and served as SOF AT&L lead for multiple general officer-level foreign SOF visits to SOF AT&L and continued to support increasing requirements as the SOF AT&L lead for technology transfers, foreign military sales, foreign disclosure reviews and end-user certificates. IO served as the technology transfer integrated product team co-chair.

Office of the Secretary of Defense Research and Development Programs—They managed the SOF AT&L proposal development, project oversight, financial execution, market investigation and reporting processes for four under secretary of defense (AT&L) programs: 1) Coalition Warfare Program—sponsored three new start projects; 2) Foreign Comparative Testing—conducted oversight of 10 ongoing projects, closed three projects and began three new projects; 3) Rapid Innovation Fund—conducted oversight of 21 ongoing projects of which four transitioned to programs of record and evaluated 37 white papers submitted in response to published SOF requirements; and 4) Defense Acquisition Challenge—closed out three projects and conducted oversight of two ongoing projects. These programs added $22.5 million supplemental research, development, test and evaluation funding in FY14 to SOF AT&L BBP initiatives.

During FY14, IO conducted SOF AT&L international armaments cooperation via CDWGs established under bilateral international agreements with various SOF partners. IO also provides support to SOF AT&L foreign disclosure and technology transfer actions.

Plans and Programs Division

The division successfully represented SOF AT&L in FY16–20 POM integrated concept teams and integrated product teams and continued to do so for the FY17–21 POM, protecting SOF AT&L equities and improving overall POM preparation instructions and schedule for all stakeholders. They also proactively drafted and coordinated the first acquisition update to the commander's decision roundtable in September 2014 and secured a standing briefing slot, on behalf of SOF AT&L, as the liaison to the vice commander's process management team. The division brought SOF AT&L more visibility and connectivity to SOCOM's strategic planning process (SPP) as a regular attendee and contributor to J-5's understanding and analysis integrated product team, vice commander's SPP and SOCOM's monthly SPP group and councils meetings.

During FY14, Plans and Programs continued to focus on improving SOF AT&L's SPP by engaging the program executive offices in development of their first-ever technology insertion roadmaps to drive focused, long-range projections for research and development funding for all years in the FY17-21 POM17 cycle. Additionally, Plans and Programs initiated concept, drafted and published the first-ever acquisition executive programming guidance to strengthen SOF AT&L's role as POM sponsor for acquisition, technology and logistics programs in the SOCOM SPP. With the technology insertion roadmaps and acquisition executive program guidance in place, SOF AT&L expects to submit more focused and balanced inputs to POM17, resulting in optimized AT&L programs providing the best capability at the lowest price possible to our deployed SOF operators.

ACQUISITION SUPPORT OFFICE

Technology and Industry Liaison Office

Shelvin D. Watts leads the Technology and Industry Liaison Office (TILO). SOCOM established the TILO to assist industry representatives and the command with communications, collaboration and connections that facilitate business opportunities and a better understanding of the command's capability needs. The TILO serves as industry's primary point of contact for the submission of white papers on areas of interest that are relevant to SOCOM and connects industry's best ideas and capabilities to the right organizations within the command. Because partnerships with industry have a direct impact on the success of the SOF warfighter, SOCOM is committed to ensuring industry has the information necessary to determine which opportunities best suit their business and where to find more information.

The TILO publishes SOCOM's capability areas of interest on its website, and industry's large and small businesses, entrepreneurs, research companies, labs and academia can access the information and submit their ideas directly to the command. The TILO team provides direct communication with submitters regarding subject matter expert interest in the capabilities submitted, and they assist with the possible application of those ideas and capabilities to solutions for warfighters.

The TILO educates, trains, informs and assists the command and industry with communications and events that strengthen government and industry ties. They work closely with the Directorate of Science and Technology, program executive offices and various SOCOM personnel who provide the scientific, technical and engineering assistance to help assess all submitted information. The TILO also organizes, maintains and archives the capabilities information for collaboration within SOCOM.

To contact the TILO with questions, you may call (813) 826-9482 or email the office at TILO@socom.mil.

Office of Small Business Programs

Christopher A. Harrington serves as the director of the Office of Small Business Programs (OSBP) for SOF AT&L. The OSBP is designated to advocate on behalf of small businesses; it strives to meet the goals mandated by Congress and the Office of the Secretary of Defense, ensuring equal opportunities to conduct business with the command. The OSBP provides information and guidance on defense procurement policies and procedures as well as methods for identifying prime contracting and subcontracting opportunities. SOCOM continually strives to increase the number of contract awards to small businesses, service-disabled veteran-owned small businesses, woman-owned small businesses, small disadvantaged businesses and historically underutilized business zones.

SOCOM did exceptionally well in supporting small businesses in FY14. The command awarded 28.8 percent of all prime dollars to small businesses, which represented more than $667 million in prime award dollars. The command exceeded its small business, woman-owned, service-disabled veteran-owned and small disadvantaged business goals. FY14 was the command's best year ever in supporting service-disabled veteran-owned small businesses (SDVOSB). The command exceeded its SDVOSB 3 percent goal by awarding 9.9 percent, or $230.4 million, to SDVOSB primes. The OSBP was recognized by the Office of Management and Budget as the Chief Acquisition Officers Council winner of the 2015 Small Business Award, a top performer in the federal government for excellence in enabling small business in federal procurement. Overall, FY14 was a tremendous year for the OSBP.

To contact the OSBP with questions, you may call (813) 826-9475 or email the office at christopher.harrington@socom.mil.

Compiled by KMI Media Group staff

Solar-Powered Generator

Larson Electronics announced the release of a solar-powered generator with a manual crank mast. This solar light tower includes four solar panels, a solar charging system, a battery bank and a mast mounted on a trailer with outriggers and a removable tongue.

The SPLT-1.2K-200A-19 from Larson Electronics is a 1.2 KW solar generator system that replenishes 100 amp hours of usable battery capacity per day. This system delivers 24 volts for lighting, cameras, sensors or other electronic equipment mounted atop a 19-foot collapsible mast. This unit is comprised of four 300-watt solar panels, generating a total maximum output of 1.2 KW. The panels are mounted to a rotating axis assembly and can be rotated until they face inwards, which protects the panels during transport. When deployed, the panels are rotated until they face upwards. As part of the deployment, operators will set the four outriggers into position by pulling them out and pinning them into position.

Fayetteville Technical Community College's New Cybersecurity/IT/ Intelligence Program

David Brand Ph.D., vice president of Fayetteville Technical Community College (FTCC), Fayetteville, N.C., announced that FTCC will launch their new Cybersecurity/IT/Intelligence 2+2 degree program June 2015. The new program will allow transfers to other major universities and community colleges around the U.S., which will help the military community and local students have a better chance of completing their degree.

FTCC continues to work with several leaders in the community to discuss a future workforce group to better synchronize efforts as a community. FTCC decided to create a new program combining three of the fastest growing areas in demand with the help of K3 Enterprises, chief executive officer (CEO) Brian Kent, Legion Group CEO Todd Servello and also help from local Fort Bragg Chapter of Military Intelligence Corps Association President Jeff LeMaster. These skill areas are experiencing double digit employment growth with excellent starting salaries above the per capita income of Cumberland County.

These areas are a particular interest to U.S. military, federal agencies and industry. Cybersecurity has become a household name after attacks on Target and Sony. Hackers collected data on over 40 million individuals just before the busiest time of year. Some in the cybersecurity field viewed the third largest retailer as possibly cutting corners on privacy protection until discovering government agencies are also falling victim to this form of terrorism.

The team at FTCC is establishing a synergistic plan of training that will grow a new workforce meeting federal, state and current industry needs in the Fayetteville area to work on major contracts like the announcement of the INSCOM $2.16 billion contract with K3 Enterprises, a local, veteran-owned company, being named as one of the prime small business set-aside companies. Such a workforce, in turn, will be an asset to all the major commands at Fort Bragg and provides the chamber of commerce a tool to leverage in the marketing of the Fayetteville community. This move also creates a competitive center for entrepreneurship and manufacturing in the three focus areas identified: Analytics (intelligence studies, analysis and forensics); Geospatial (GIS) for local city planning purposes to worldwide commercial and military operations; and Advanced Information Technology (cyber, information assurance, mobile applications).

New Chute for Army SF

3rd Special Forces Group (Airborne) is the first unit in a special forces regiment to field the Army's new Military Free Fall Advanced Ram-Air Parachute System, or RA-1.

The group's riggers were also the first to conduct the rigger and jumper new equipment training, or NET, for the RA-1 double bag static line.

The new parachute can be used for static line or free fall operations. The RA-1 also features a stronger construction, allowing the system to support 75 more pounds than its similarly shaped, MC-4 predecessor that had been the standard in special operations for many years.

"The RA-1 is an impressive piece of equipment due to its versatility," said 3rd Group's airdrop technician. "The capability to be configured as a static line parachute or a free fall parachute increases our adaptability to mission requirements."

The group's riggers will continue their assistance with the fielding of the RA-1 across the special operations community by sending two soldiers to Yuma, Ariz., in April, to work with the 1st Special Warfare Training Group (Airborne). This subject-matter expertise exchange will be an essential aspect of fielding the new parachute for students in the military free fall parachutist course.

"After training with this equipment, the lessons learned for both the jumper and rigger NET were integrated and passed on to higher commands to aid other special operations forces with the transition," said the non-commissioned officer in charge of the group's parachute rigger facility.

The group's riggers have also been supporting combat operations in Afghanistan. Deployed riggers provide special operations forces with aerial delivery support to multiple special operations missions. To prepare and maintain proficiency for the mission in Afghanistan, the group's parachute rigging facility has been keeping a busy schedule. The focus of the training has been on special operations combat expendable platforms, Joint Precision Airdrop Systems and Low-Cost Aerial Delivery Systems.

SOCOM Synchronizer

Q&A

Providing a Broad Range of Strategic Options to the Nation's Leaders

General Joseph L. Votel
Commander
SOCOM

General Joseph L. Votel attended the U.S. Military Academy and was commissioned in 1980 as an Army infantry officer. His initial assignments were to the 3rd Infantry Division in Germany where he served as a rifle platoon leader, executive officer, battalion adjutant and rifle company commander.

Following this tour, he was assigned to Headquarters, Allied Forces Southern Europe–Naples, Italy, and the NATO Peace Implementation Force in Sarajevo. He commanded the 2nd Battalion, 22nd Infantry (Light) at Fort Drum, N.Y., and was subsequently selected to command the 1st Ranger Battalion at Hunter Army Airfield, Savannah, Ga. Following attendance at the Army War College, Votel commanded the 75th Ranger Regiment and participated in Operation Enduring Freedom, Afghanistan, and Operation Iraqi Freedom, Iraq.

As a general officer, Votel served in the Pentagon as the director of the Army and Joint Improvised Explosive Device Defeat Task Force and subsequently as the deputy director of the Joint IED Defeat Organization established under the deputy secretary of defense. He also served as the deputy commanding general (operations), 82nd Airborne Division/Combined Joint Task Force-82, Operation Enduring Freedom, Afghanistan, and was subsequently assigned as the deputy commanding general of the Joint Special Operations Command, Fort Bragg, N.C. His most recent assignment was as the commanding general of the Joint Special Operations Command.

Votel is a graduate of the Infantry Officer Basic and Advanced Courses, U.S. Army Command and General Staff College, and the U.S. Army War College.

Q: General Votel, what is your strategic vision for the SOCOM enterprise?

A: U.S. Special Operations Command's mission is to synchronize the planning of special operations and provide SOF to support persistent, networked and distributed geographic combatant command (GCC) operations to protect and advance our nation's interests.

To accomplish this mission, my vision for SOCOM is to provide a broad range of strategic options to our national leaders and the GCCs we support to deal with our nation's most complex and high-risk challenges. What makes SOF's range of options so broad is the fact that we fully integrate our service, interagency and international partners.

One of the lessons that we have learned from almost 14 years of continuous combat operations is that no single entity can achieve success on its own. The SOF enterprise is made up of a group of remarkable military and civilian professionals who have a reputation for excellence and the achievement of superior results when dealing with our nation's most challenging national security problems. However, SOF alone cannot accomplish all of these national security objectives. It takes a group of partners who are networked in such a way to achieve a common goal which meets all of our nation's security requirements. Therefore, SOF focuses on contributing to the mission as a well-integrated part of a team effort. Bottom line, SOCOM aims to be the best supporting command to the geographic combatant commanders. If they are successful, we are successful. If they fail, we fail.

Q: What do you look for in a relationship with your industrial suppliers, and how you can better strengthen that relationship?

A: One of SOF's greatest attributes is our ability to create and leverage a broad network of partnerships with the services, industry, academia and our international partners to rapidly identify and transition technology and equipment into capabilities for our SOF warfighters. This network enables SOCOM to achieve and maintain a competitive advantage in our acquisition velocity and iteration speed. We are strongest when we close the distance between the operator, acquirer, logistician, industry and international partners, thus enabling innovation and collaboration to occur over what are traditionally seen as large chasms between invention, procurement, fielding, support and operator use.

The members of my SOF Acquisition, Technology and Logistics (AT&L) team are the recognized experts and trusted providers to SOF for unique acquisition, technology and logistics. They are constantly

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improving their impressive capability to deliver an unprecedented amount of equipment and services to our SOF operators. A good example of this is the Tactical Assault Light Operator Suit (TALOS) effort, which is making notable progress with its numerous innovations that drive our future capabilities and as well enable immediate spinoffs that rapidly improve our capability on the battlefield today.

There are many other examples where our AT&L efforts are promoting innovation, whether it is operator-, technology-, threat- or needs-driven. SOF AT&L holds several multiweek experimentation venues each year that promote to industry, academia and operational units the ability to field test new technologies. These are held at no cost to attendees, and are invaluable due to the immediate feedback that the SOF participants provide.

Our Technology & Industry Liaison Office provides an excellent conduit in which to present information on capabilities to the various SOCOM program executive offices, directorates and others responsible for research and development (R&D), acquisition, production and sustainment of SOCOM materiel and technology platforms.

SOCOM has also greatly expanded the use of cooperative research and development agreements to enable early partnering with industry as they explore new technologies or capabilities. To that end, we have expanded the number of SOF-to-SOF cooperative development agreements with our international SOF partners. By opening up the lines of communication and working together, we are all able to make better decisions and, in the end, get desired capability to the operator better, faster, cheaper and more effectively.

Q: As you look forward to the requested fiscal year 2016 budget, what are your expectations about your ability to maintain your acquisition and R&D programs?

A: Our fifth SOF truth, "Most SOF operations require non-SOF assistance," applies equally to our SOF AT&L capability. We get tremendous support from the services and greatly leverage their activities in order to enable our speed and agility. That said, I am always mindful of the services' situations. We are inextricably tied to the budget cuts that impact the services—our investment strategy is tied to theirs. In previous years, Congress has recognized that SOCOM needed the financial support to increase readiness and reset rates so that we would be able to meet the demand signal for SOF.

Our biggest challenge in the current environment is being mindful not to sacrifice science and technology or other research and development funding by making it a lower priority to maintain a keen edge in our operations and maintenance readiness. To ensure this does not occur, we have established core technology roadmaps that, when used in conjunction with user-developed capability roadmaps, allow us to ensure that we are funding the critical emergent technologies and capabilities needed to maintain a competitive advantage over our adversaries.

We also continue to grow our strong global network of users, industry, academia and international partners in order to synchronize activities and ensure no duplication of effort. We are also exercising new business models, such as incentive prize challenges

whereby we use the government as the integrator in order to provide new tools to attack problems.

Another one of SOCOM's strengths is our strategic planning process (SPP). The SPP prioritizes the command's efforts into a synchronized strategy which in turn supports equipment acquisitions. SOF AT&L plays a key role in this process by identifying technology opportunities and ranges of equipment that can provide these much-needed capabilities. Once prioritized, this process enables us to execute programs with the full buy-in of our customers. Furthermore, we also execute the rapid requirements and acquisition processes in order to respond to urgent battlefield needs as required.

The complexity of SOF operations around the world certainly presents constant challenges for SOF AT&L. As a command, we are seeing diverse requirements and supporting expansion in almost all dimensions—operating in declared combat zones as well as outside theaters of armed conflict, conducting a wide variety of missions that encompass direct action to partnered operations in a wide number of countries and climates. This complex and challenging environment demands us to support deployed forces, while simultaneously looking at emerging technologies and capabilities needed for future operations.

As the SOCOM commander, I will never lose sight of the fact that we must take all necessary steps to ensure our acquisition, logistics and technology efforts continue to match today's ever-increasing speed of change in the world and implicitly demand that we remain proactive in our approach.

Q: What is the status of SOCOM's TALOS program?

A: TALOS was initially chartered in reaction to the unfortunate and untimely death of a SOF operator. SOCOM initiated the program in an effort to save future lives—and to explore and catalyze a revolutionary integration of advanced technologies. TALOS aims to provide comprehensive ballistic protection, peerless tactical capabilities and ultimately enhance the strategic effectiveness of the SOF operator of the future. We have made significant progress over the first year of this very unique effort, and I am very excited about the ideas that we are seeing from industry, government and academia as a result.

So far, we have evaluated some initial prototypes for the system. We are currently in the process of determining which technologies and features can be transitioned to the force in the near term, and which can be developed and integrated into future TALOS designs. Through an innovative business model, SOCOM is using the TALOS effort to develop and test new ways of acquiring cutting-edge technology from both traditional and nontraditional sources, which in the end may well have applications for other tough SOF problems.

An added benefit to this is that there will be spin-off technologies that arise as a result that can be pushed rapidly to SOF, general-purpose forces, medical fields and other industries. So far, we have seen 14 spin-off technologies from this program that we intent to develop further.

As mentioned before, TALOS addresses a very relevant tactical problem—dramatically improving the survivability of the operator at their most vulnerable time. Despite the technical and programmatic hurdles, this relevancy drives us and our DoD and industry partners to push the envelope. We need to do this to ensure that we are getting revolutionary technology advances (power generation and management, mobility and agility, survivability, offensive systems, human factors and physiology, command, control, communications and intelligence, processing and control, operator interface and signature management) out to the operator at a speed and urgency commensurate with the tactical environments of not only today, but also, more importantly, tomorrow.

Our challenge with the TALOS program is to develop an innovative technical and programmatic framework that enables us to take advantage of new ideas and technology breakthroughs no matter their origin—academia, industry or other government sources. Partnerships are essential to the success of this effort. We are collaborating with nontraditional partners in various public/private industries, academia and business sectors in order to identify technologies that may have applications to TALOS. To that end, we are spending as much time focusing on the way we acquire TALOS as we are focusing on what technologies we are in fact acquiring.

The TALOS Team's ultimate focus is the development of a First Article Tactical Prototype by August 2018.

Q: What is the SOCOM way forward with regard to capabilities and requirements of unmanned roadmap (air, land and sea)?

A: SOCOM conducted a thorough analysis of the command's overarching plan for manned and unmanned ISR from 2020 to 2035. This analysis formed the basis of the SOCOM ISR Roadmap. The roadmap compares projected collection requirements to programmed resources, establishes investment strategies and identifies the gaps between SOF and service plans.

The roadmap changes the way SOF approaches ISR. It refines the definitions of capabilities to better explain the requirements and solutions that best support SOCOM's ISR plans in addition to better defining the operational environment. The refined definitions and terminology are the foundation of the roadmap and describe the varying levels of capability across the four elements of the ISR pyramid—platforms, sensors, data transport, and processing, exploitation and dissemination. The newly adopted model also breaks down the capabilities into three categories:

- Theater/operational (find, fix, finish, exploit, assess and disseminate)
- Tactical (support to precision engagement, force protection, building partner capability)
- Focused (reconnaissance, surveillance, target acquisition and situational awareness).

The roadmap also discusses SOF's growing reliance on maritime and ground ISR and underscores the need for additional planning and future investment in both these areas.

The development of SOCOM's ISR Roadmap serves as the essential first step to the long-term maintenance of SOCOM's cutting-edge ISR capability. SOCOM's ISR capability is critical to ensuring the successful accomplishment of missions that span the spectrum of special operations core activities. ✯

Moving Beyond "Jointness"

Establishing viable partnerships is essential in an era of hybrid and asymmetric warfare.

By Meaghan Keeler-Pettigrew and Tess deBlanc-Knowles

As many readers of this publication know, the establishment of U.S. SOCOM in 1987 was born of a desire on the part of Congress to force the services' various special operations forces to work together. Former Senator and Secretary of Defense William Cohen, one of the architects of SOCOM, described it thus: "It [SOCOM] has gone beyond anything that either Senator [Sam] Nunn or I expected at the time. We were primarily concerned with the lack of jointness, training, education and cultural insight, and we wanted jointness to really become a reality … What has happened is that SOF has become the indispensable tool …." To be sure, U.S. special operations forces have made great strides in the past 28 years; in particular, their fundamental role in our nation's conflicts over the last 13 is indisputable.

Unfortunately, "jointness" is no longer enough.

At its core, modern warfare is no longer defined by full-scale, interstate clashes, but by asymmetric conflict. The primary threats to national security and national interests faced by the United States and our allies manifest in terrorist networks, transnational criminal organizations, rogue states and the intersections and nodes of cooperation among these malicious actors. The rapid rise of the Islamic State in the Levant, the Russian-backed separatist movement in Ukraine and the expanding operations of violent extremist groups across Africa represent the most recent symptoms of this new security paradigm.

Today's threat environment is characterized not only by the growth of violent, non-state actors, but also by nontraditional means of operation, such as the coordinated and effective inclusion of cyber-warfare and social media in information operations. Today, extremist groups are able to propagate their message, recruit adherents and dominate the narrative quickly and with very little cost; this capability has enabled groups to evolve, adapt and coordinate across the globe in a rate and manner never before witnessed.

Since 2000, the number of terrorist incidents occurring across the globe has increased fivefold. In 2013, the number of people killed in terrorist attacks jumped by 61 percent.

What's needed to address this environment goes beyond effective "jointness" among U.S. SOF. What's needed now is effective partnership, and not partnership in name alone, but legitimate bilateral and multinational planning, training, interoperability, information sharing and burden sharing from the tactical to the strategic level. Simply put, we will not win the current or future fight unless we meaningfully commit to our partnerships and unless we foster a yet-to-be-reached level of coordination and cooperation with allies and partners across the globe.

Frankly, today's threats are maturing and adapting at a rate we are nowhere close to matching. Coupled with current fiscal constraints, this makes very real the possibility that we could be pushed into a perpetual defensive posture. And adopting a defensive or purely reactive position will spell our defeat. Hybrid and asymmetric warfare requires a proactive posture if we are to be successful in the long run.

So what does true partnership among global SOF allies look like? It looks like units who grow up together hand in hand with their international counterparts, training closely and persistently with partner units. It looks like leaders who are able to strategically allocate resources and apply capabilities in coordination with partners in order to maximize effects against shared threats. It looks like forces that are able to react quickly in a crisis thanks to existing channels of communication and the ability to rapidly share information. It looks like a network of allies and partners that exponentially increase the range of response options available to national decision-makers.

How can we make this vision a reality? First, domestically, the United States needs to re-evaluate and reprioritize resourcing investments. We should shift defense dollars from conventional weapons, platforms and capabilities to SOF, cyber and intelligence. To combat current threats, we do not need the current numbers of legacy weapons systems but rather the tools that enable agile, rapid responses. We should continue to resource those platforms that can support flexible payloads for a broad spectrum of threats and reduce resourcing to those not suited to flexibility. We need regionally attuned special operators, expertly trained cyber-warriors and tailored intelligence technologies. We need to invest in innovative tools and capabilities that enable us to get out in front of our adversaries rather than chasing them from behind, including a new approach to intelligence that fuses open-source and covertly produced information.

Second, the United States and our partners must make policy changes in order to facilitate coalition warfare. We must, for example, as a community of partners and allies, open the aperture of information sharing. To succeed in establishing viable partnerships, sharing should become the default choice and compartmentalizing the exception. Among the defense and intelligence communities, there will be some initial reluctance to sharing more information with our allies and partners. But if there isn't at least some level of

discomfort, then what you're sharing isn't worthwhile to begin with. We must also further invest in and develop the systems and technologies that enable a more robust level of information sharing and multinational dialogue while providing the necessary protections and security to our and our partners' information.

Third, we need to develop programs by which global SOF partners cross-train, jointly plan and execute multinational operations. We need to formalize and make more regular the ad-hoc coordination that so often occurs in the field and bring that level of cooperation to strategic and operational planning efforts. To effectively share the burden of combating shared threats, we must know where, why and how our partners are operating, and be willing to share the same information. We and our long-term allies should give serious consideration to institutionalizing burden-sharing to the greatest extent possible. Not all countries can nor should possess the full spectrum of special operations capabilities. We should deliberately divide and share resource burdens as well as capabilities in an intentional manner, even if it is on an informal basis.

Fourth, we must further develop SOF capabilities and structures. Our own SOF need to rebalance and regain their regional expertise and experience. We should think critically about new SOF formations, the integration of women into SOF and the creative use of enablers and force posture to project SOF power in strategic locations. Many of our global partners need to establish their own joint SOF headquarters so that they increase their own internal interoperability. This will see returns in improved internal capabilities and also make the development of bilateral and multinational relationships much easier.

Let us not squander the network among global SOF that has been built in the last 13 years of war. If we look back on the creation of SOCOM, it is apparent that U.S. SOF "jointness" has been a success; the level of U.S. SOF interoperability is unmatched (albeit not perfect in all instances). But we must tackle the next hurdle: global partnership. Working closely with partners—developing effective concepts, agreements and habitual relationships—is as important to our ability to win future wars as maintaining our technological edge and dominance. Creating, maintaining and advancing working partnerships will allow us to apply resources and project power in a smarter, more effective way. If we are successful, we will be able to leverage partners' relative strengths, increase our ability to monitor today's threats and anticipate conflict, thereby increasing our chances to prevent it.

The way we fought and won wars in the past is not how we will win the current fight. We must be able to work together "left of bang" and come together quickly and interoperate when crisis strikes. ★

Meaghan Keeler-Pettigrew is CEO of Global SOF Foundation and Tess deBlanc-Knowles is a writer and strategic planner for CACI. The views expressed are the authors' own.

For more information, contact *SOTECH* Editor Chris McCoy at chrism@kmimediagroup.com or search our online archives for related stories at www.sotech-kmi.com.

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The evolution of UAV firepower sees a potentially wider array of missiles under wing.

Language Proficiencies
The U.S. Air Force Special Operations School Language Center at Hurlburt Field, Fla., earned the Special Operations Command Institutional Language Program of the Year award in 2014. Knowing the local tongue is often essential in conducting missions overseas.

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Andrew Ruszkowski
Chief Commercial Officer
XTAR

XTAR is a U.S. satellite operator providing space segment capacity for communications. As chief commercial officer, Andrew Ruszkowski provides strategic leadership to expand XTAR's sales opportunities and to reinvigorate its brand visibility in new markets worldwide. He is also very involved in XTAR's fleet development to support current and anticipated government and military requirements.

Q: Could you tell our readers about some of the applications your company supports?

A: While we support a range of applications, X-band capacity is an ideal resource for any user who is seeking to employ small disadvantage terminals in a high-throughput mode that often translates into mobile applications on land, at sea and in the air. In fact, support to airborne ISR applications is the greatest demand driver for XTAR service.

Q: What unique benefits do some of your products provide your customers in comparison with other companies in your field?

A: XTAR stands apart in a number of fundamental ways that make a meaningful difference to the special operator and provide the opportunity to support key users and programs. XTAR provides non-preemptible service, which is essential for the special operator. Since our users cannot be preempted by another user, XTAR can offer the operational independence and anonymity our users depend on in a secure environment.

Q: What are some present or future programs or initiatives within your company?

A: XTAR is always seeking to innovate to meet our users' evolving requirements. Recently, XTAR established a standard daily service through which customers can acquire what they need in increments as short as a 24-hour period. This has proven to be a very big success among our customers. At the same time, when XTAR engages in innovation, we are often doing so in support of others. That is, XTAR places a high priority on assisting those who are developing new technology and systems for the user. For example, XTAR is partnered with a number of companies developing new X-band terminals for use on aircraft. In just the last few years, there have been some amazing breakthroughs in small-terminal development while being able to support higher throughput.

Q: How is your division positioned in the market for expansion?

A: XTAR has been very open about its ambition to expand its geographic reach into the Pacific Ocean region (POR) and South East Asia (SEA). Today, we provide service basically from Denver east to Singapore. We believe the XTAR value proposition will be received very well in POR and SEA where the geography and weather make satellite communications problematic. X-band is ideal for these regions.

Q: Can you provide a few success stories?

A: Most of our client work is confidential and/or classified, but I'm glad I can share one recent success where XTAR was chosen to support testing of the new MQ-4C Triton unmanned aerial vehicle. We are supplying space segment capacity on the XTAR-LANT North America spot beam for the MQ-4C Triton, which has had its communications payload built to specifically leverage X-band and military Ka-band frequencies. The Triton is one of the Navy's unmanned aerial vehicle platforms intended to provide real-time intelligence and reconnaissance and support search and rescue missions.

In addition to this success, XTAR was able to begin providing service to a new confidential customer in less than 24 hours of first contact. But in the end, our greatest success is how XTAR makes it possible for airborne ISR operators to achieve higher throughputs, with smaller terminals, at up to one-fifth the cost of solutions in other frequency bands.

Q: What are your objectives in 2015? Which of your sectors have experienced fast growth, and why?

A: A few years ago, we realized our greatest success would come from focusing on a narrow segment of the government market. That subset includes special operators who require non-preemptible service, the ability to operate stealthily, and the capacity to bring into use new technology which may not perform well or even be welcome on other constellations or frequency bands. For the foreseeable future, XTAR's team is built on supporting the special operations community and the mobile user, at sea, on land and in the air, which is the application driving the fastest growth for XTAR.

Q: How are your communications solutions customized to meet the needs of the government?

A: XTAR's mission is exclusively focused on supporting the government user, so I think the more appropriate question is: How are the needs of the government user evolving? I see three main themes stand out: increasing bandwidth demand, greater mobility requirements and an increasing desire for flexible contracting terms—and XTAR is positioned to respond to all three of these needs. For certain applications, no other frequency band can match X-band; XTAR, more than any other X-band operator, is doing more to support the mobile user. From helping developers increase performance and shrink the size of their mobile terminals to offering a place for making use of those terminals in the field, XTAR leads the way in supporting the operational interests of the special operations community. ✭

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