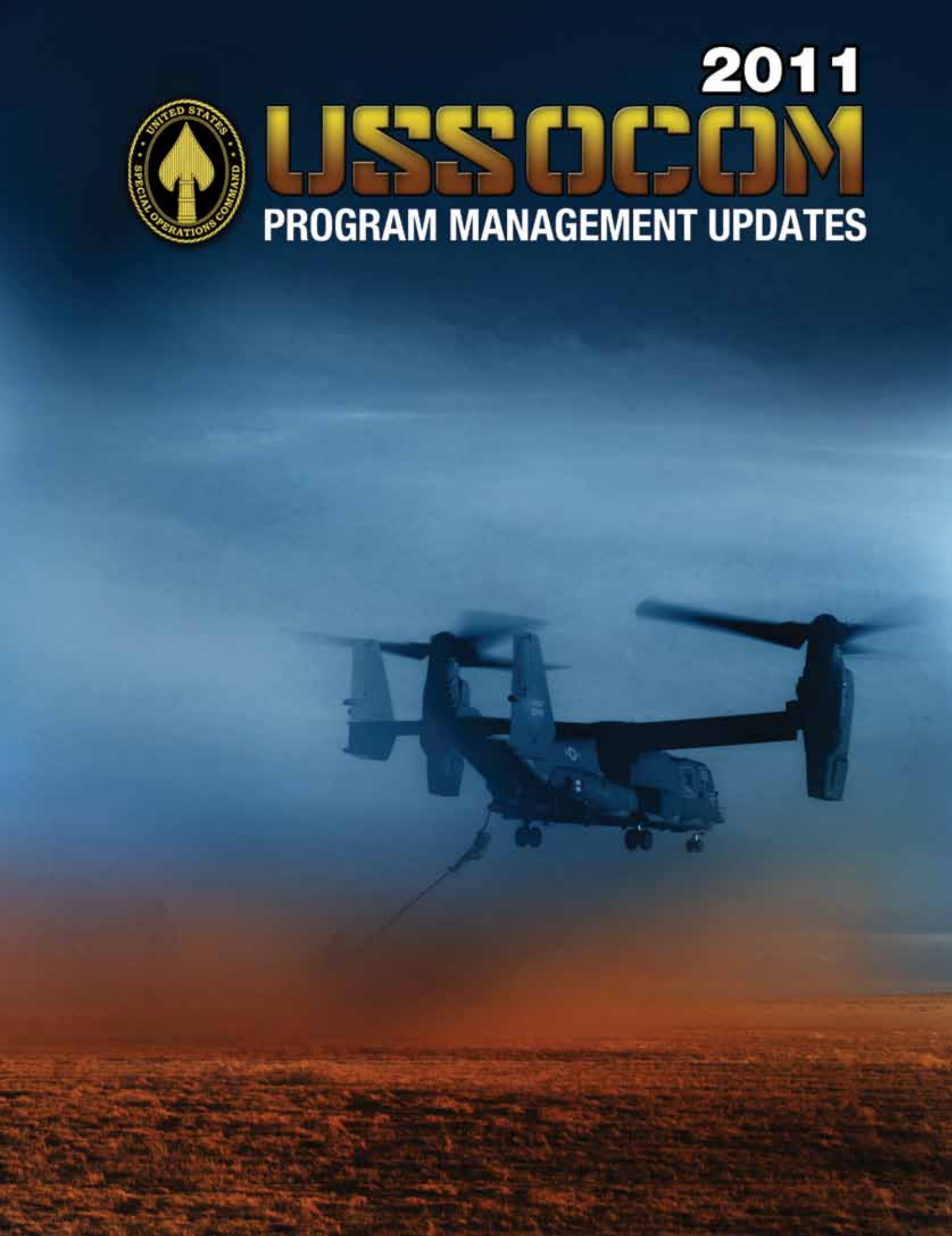




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UNITED STATES SPECIAL OPERATIONS COMMAND

SPECIAL OPERATIONS RESEARCH, DEVELOPMENT, AND ACQUISITION CENTER — EXECUTIVE SUMMARY

Special Operations Research, Development, and Acquisition Center's (SORDAC) continuing mission is to provide rapid and focused acquisition, technology and logistics support to the United States Special Operations Command and our special operations forces. USSOCOM's unique acquisition authorities enable the employment of flexible, responsive, and unconventional means to execute agile acquisition. SORDAC's seven program executive offices (PEOs) manage the development and procurement of SOF-peculiar equipment, and our newly established comptroller executes the command's acquisition budget based on the PEOs' plans.

Fiscal year 2010 was a challenging, but successful, year for SORDAC during which we managed \$5.6 billion of acquisition efforts. The local SORDAC contracting office executed over 13,500 contract actions, obligating approximately \$2.7 billion. SORDAC continues to be more efficient and respondent to urgent acquisition requirements, enabling unequalled success in SOF operations. Our ability to quickly establish joint acquisition task forces leverages our acquisition authorities to close the gap between urgent needs and operational implementation.

As SOCOM's acquisition executive, my FY11 priorities are focused on the following programmatic and operational goals: minimized program deviations, maximized technology insertion plans into programs of record, enhanced surge capabilities for urgent acquisitions, improved competitive processes, and use of business practices that reduce operational overhead at every level and enhance accountability and strategic plan alignment.

To further advance our acquisition interests and efficiencies, we have initiated a series of acquisition summits, in conjunction with USD AT&L [undersecretary of defense for acquisition, technology and logistics] and the military department acquisition executives, to regularly review and solve a wide range of acquisition challenges. These reviews help us to collectively minimize programmatic disconnects, better align requirements, and co-sponsor development opportunities. This allows us to seek funding efficiencies, eliminate redundant testing and optimize contracting actions throughout the acquisition life cycle. The command is also engaged with the services to achieve service-common transitions earlier in the capabilities, investment, and sustainment processes. Developing and maintaining an agile and specialized workforce of "SOF acquirers" is also a key summit topic. USSOCOM is working with USD AT&L toward obtaining local defense acquisition career management certification authority, a much needed flexibility to meet the fluid, urgent and specialized needs of SOF.

Like our partnerships with the services, SORDAC's collaborations with industry have a direct impact on the success of the SOF operator, and we are dedicated to communicating USSOCOM's technology and capability interests to industry.

By focusing on these initiatives, I am optimistic we will achieve DoD's efficiency goals and invigorate a robust and technologically vibrant defense industry—enabling SOF to remain the premier specialized force in today's modern warfare environment.

James W. Cluck
Acquisition Executive
United States Special Operations Command

PROGRAM EXECUTIVE OFFICE FIXED WING

U.S. Air Force Colonel Duke Richardson is the Program Executive Officer for Fixed Wing (PEO-FW). The PEO-FW mission is to deliver special operations forces-peculiar manned and unmanned fixed wing airpower capabilities to effectively enable SOF. To meet this mission, PEO-FW partners with the warfighter and various development and support organizations to synchronize acquisition activities to field an array of advanced technology sensors, defensive countermeasures, advanced avionics and mission training systems. This process ensures SOF fixed wing aircraft can accomplish its missions in expected threat environments and address supportability challenges of an aging legacy fleet.

USSOCOM'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 capabilities for SOF in and out of hostile territory through weapon systems such as the MC-130H Combat Talon II and CV-22 Osprey aircraft. The AC-130H Spectre and AC-130U Spooky gunships and the MC-130W Dragon Spear provide critical precision engagement and close-air support. Various manned and unmanned systems deliver real-time aerial surveillance of the battlefield for the individual soldier, sailor, airman, marine and task force commander. Mission systems programs, such as the Silent Knight Radar and the directional infrared countermeasures programs, provide common approaches to capabilities needed across the entire fleet.

The low-density, high-demand nature of the SOF fixed wing fleet is a key driver in the acquisition approaches used to continue to improve and sustain the force. The high operational tempo of these aircraft requires innovative means to incorporate capability and sustainment improvements while ensuring adequate aircraft availability. In addition, PEO-FW executes a technology demonstration program to posture special operations

fixed wing forces to evaluate future courses of action for ensuring effective operations well into the future.

C-130—BACKBONE OF THE SOF FIXED WING FLEET

PEO-FW continues to face the mounting challenges of sustaining the low-density, high-demand SOF C-130 fleet while simultaneously satisfying roadmaps for modernization.



The MC-130J is to provide special operations forces infiltration, exfiltration, resupply and aerial helo refueling. [Photo courtesy of Lockheed Martin]

PEO-FW manages numerous SOF C-130 sustainment, modification and modernization programs. USSOCOM, in conjunction with the U.S. Air Force, procures 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. The first MC-130J is scheduled for delivery to Cannon Air Force Base, N.M., in September. Additionally, the 2011 president's budget seeks to recapitalize the aging AC-130H fleet with 16 additional MC-130J aircraft to be modified with the USSOCOM-developed Precision Strike Package.

MC-130P Combat Shadow aircraft cargo delivery handling systems have completed upgrades to standardized dual rails. This system dramatically increases airdrop capability and reduces the number of sorties required to perform the SOF airlift mission.

Ongoing operations continue to stress the SOF C-130 fleet. USSOCOM and its acquisition partners at Warner Robins Air Logistics Center, Ga., are accelerating production and installation timelines for the center wing box replacement on the AC-130U and MC-130H

aircraft to minimize the time aircraft are away from the battlefield. In addition, USSOCOM and Warner Robins implemented a strategy to address SOF-peculiar avionics obsolescence issues on the AC-130U and the MC-130H/W aircraft. The contract award for the mission computer replacement on the AC-130U and MC-130H is expected in June.

A consolidated, low-cost modification program continues in 2011 to address ongoing obsolescence and other sustainment issues across the SOF C-130 fleet. USSOCOM is working with U.S. Air Force Special Operations Command and Warner Robins to prioritize and quickly address these issues. The sustainment and modernization of the MC-130H/P loadmaster scanner crashworthy seats and lightweight armor and the AC-130U infrared suppression systems also continue throughout 2011.

MC-130W DRAGON SPEAR – SOF'S MULTI-MISSION AIRCRAFT

In April 2009, the Secretary of Defense directed USSOCOM to rapidly develop, test and field a multi-mission system with intelligence, surveillance and reconnaissance; strike, and mobility capability to support deployed forces in response to a USSOCOM-approved combat mission needs statement. To meet the command's number one urgent need, USSOCOM formulated the Project Dragon Spear Joint Acquisition task Force (JATF), which included combat acquisition detachments at service product centers. The team successfully executed an acquisition solution that rapidly integrated, tested and fielded combat capability using a precision strike package (PSP) concept. This concept selected the best technologies available from DoD weapon systems while providing spin-off capabilities for other USSOCOM and service needs. These activities were executed at a pace that far exceeded previous USSOCOM standards, and they were

completed at a fraction of the cost previously paid for comparable technology. Using this approach, the JATF delivered two fully combat-capable MC-130W aircraft in less than 10 months.

Two Dragon Spear aircraft deployed in the last quarter of calendar year 2010, and operational support has been continuous since their arrival in theater. Dragon Spear continues to execute an aggressive production and integration project to equip MC-130W aircraft with PSP.

It enables armed over-watch and strike missions in addition to the current mobility and aerial refueling capability. PSP strike capabilities were demonstrated in 2009 as the JATF developed, integrated and tested the package using mature technologies. The expanded capabilities provided in the PSP include



CV-22 Osprey in flight. [Photo courtesy of U.S. Air Force]

electro-optical/infrared sensors, medium caliber gun, special operations precision guided munitions launch, and expanded communication systems.

The MC-130W Dragon Spear modification lines completed eight aircraft by the end of 2010. Modifications continue, and the last

full Dragon Spear modification will be complete in 2011. The MC-130W aircraft are operated by crews based at Cannon Air Force Base.

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 dependence 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.

The unique characteristic of the CV-22 is its ability to take off and land like a helicopter, but once airborne, its engine nacelles tilt to convert the aircraft into a high-speed, high-altitude turboprop airplane. The CV-22 is tailored for special operations missions

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through an enhanced electronic warfare suite, specifically the AN/AAQ-24 Directional Infrared Countermeasure (DIRCM), the AN/ALQ-211 Suite of Integrated Radio Frequency Countermeasures (SIRFC), and the AN/APQ-186 terrain following/terrain avoidance (TF/TA) multi-mode radar. The DIRCM system provides active jamming of infrared homing missiles. SIRFC counters threats through its missile-warning receivers and jammers and provides real-time threat information to the aircrew through a dedicated display unit in the cockpit. The TF/TA radar provides the aircrew with the ability to mask the aircraft by flying low and taking advantage of surrounding terrain. To further enhance aircraft and crew survivability, the CV-22 includes a .50 caliber ramp-mounted weapon system. The CV-22 is powered by two Rolls-Royce AE1107C Liberty turbo shaft engines that produce 6,150 shaft horsepower each, which enable a cruising speed of 230 knots. The CV-22 is a fly-by-wire aircraft that provides twice the speed, three times the payload, five times the range, and more than twice the altitude of a conventional CH-46 helicopter. USSOCOM has delivered 17 of the programmed fleet of 50 CV-22s.

SILENT KNIGHT – A COMMON RADAR FOR THE SOF AVIATION FLEET

The Silent Knight Radar (SKR) program provides USSOCOM with an affordable replacement for today's aging TF/TA multi-mode radars employing Cold War radar technology. The required capabilities of SKR include TF/TA capability with a low probability of intercept and low probability of detection feature; color display of weather and weather intensity; high-resolution display of prominent terrain features; and detection and location of other aircraft and ships. The program initiated a contractor flight test in May 2010 when the first Silent Knight engineering unit was integrated onto a contractor-owned Convair. Testing of basic radar functionality continued on board the Convair until December 2010 when the contractor flight test program transitioned to a contractor-owned Huey UH-1. The contractor flight test will continue throughout 2011. Five pre-production radars will complete assembly in March 2011. These radars will be used for safety of flight testing and will support the development of the flight test program, which will begin in fall 2011 on board an MH-47G and continue into 2014. Low-rate initial production is planned for FY13.

DIRECTIONAL INFRARED COUNTERMEASURES PROGRAM – PROTECTING THE FLEET

Infrared (IR)-guided missile systems have become the adversary's weapon of choice due to their passive nature (i.e., low probability of detection prior to launch), simple operation, low cost and availability. At least 80 nations on six continents employ IR-guided surface-to-air missiles that can be carried and launched by one person. To address this evolving threat, USSOCOM teamed with the United Kingdom to execute a cooperative acquisition program with merged requirements. The AN/AAQ-24 DIRCM system, the first successful program of its type, ensures fast, accurate threat location through on-board missile-warning sensors. DIRCM was designed in modular fashion to allow multiple installation configurations on a wide range of fixed wing and rotary wing aircraft. The front-end production qualification and performance certification phase of the effort was completed in early 1999, and final installation occurred in 2004.

The success of the DIRCM system is self-evident. The U.S. Air Force requirement has grown to well over 400 aircraft, resulting in the transition of program management and sustainment responsibilities for all common components to the Department of the Air Force. USSOCOM will continue to sustain the SOF-peculiar components until upgrades to a laser-based system are completed.

AIRCREW TRAINING SYSTEMS – TRAINING THE FLEET

Cost, operational security and safety risks to the operators often make live training prohibitive. As a result, SOF regularly relies on computer-driven, virtual simulations that effectively replicate system capabilities, mission environments and mission scenarios. These systems emulate real-world equipment operating within a virtual combative environment. Most SOF training and

mission-rehearsal actions are conducted in fully immersive "mock-up" systems that replicate the form, fit and function of the actual weapon system. The training environment includes three-dimensional views, computer-generated forces, synthetic communications, environmental conditions and sensory cues to train SOF warriors in the closest representation possible of the realities of combat.



An RC-26B with the 130th Airlift Wing out of Charleston, W.V. is poised for flight. [Photo courtesy of U.S. Army]

Aircrew training system acquisitions address training needs for the AC-130H, AC-130U, CV-22, MC-130H, MC-130W and U-28A. The AC-130H training system includes a combat systems trainer to train the back end crew at Cannon Air Force Base. The AC-130U training systems include a sensor part task trainer and the electronic warfare officer station at Hurlburt Field, Fla. The MC-130H training system includes the fuselage trainer at Hurlburt Field. The MC-130W training systems include the weapon systems trainer and the fuselage trainer at Cannon Air Force Base. The U-28A training systems include the cockpit training device and the mission-training device at Hurlburt Field. Additional aircrew training systems are being studied to address non-standard aviation and small unmanned aircraft systems.

The simulator block update (SBUD) program sustains legacy fixed wing aviation training capabilities through training device obsolescence modifications and contractor logistics support. This program addresses the significant recurring effort to sustain existing training devices. Obsolete simulator subsystems are replaced periodically to maintain fidelity, enhance reliability and maintainability, and ensure operational readiness. In addition to addressing obsolescence, training devices must remain current to ever-evolving



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The V-22 Osprey has achieved a critical milestone: 100,000 flight hours. Even more significant is its demonstrated capability, effectiveness and safety in real combat environments. In fact, during the past decade, the V-22 has been the safest, most survivable tactical Marine Corps rotorcraft. We salute both the Marine Corps and the U.S. Air Force on the success of their V-22 operations and this special accomplishment.

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improvements to weapon systems. Training device currency with the aircraft weapon system is addressed by the SBUD program in terms of technology and modifications. SBUD also enables the addition of modifications to maintain concurrency of the simulators with the weapon system.

SPECIAL OPERATIONS MISSION PLANNING ENVIRONMENT – PREPARING THE FLEET

The Special Operations Mission Planning Environment (SOMPE) program is a computer-based suite of software products developed in response to USSOCOM user-specified needs to speed and improve the accuracy of SOF time-sensitive planning. SOMPE products enable detailed mission planning using imagery; digital terrain/nautical/man-made structural data; two- and three-dimensional views of mission routing; threat positions; weapon system ranges; friendly positions; weapon system performance data; and limited environmental data. SOMPE products facilitate mission coordination and tracking with weapon system data transfer capability, synchronization matrices, execution checklists, moving maps, and other output products. The program provides support personnel at the user level to enable system and mission support worldwide. SOMPE products are integrated into the SOF family of systems where planning and rehearsal are integrated across air, ground and maritime networks, training exercises, and distributed mission operations events. Looking forward, SOMPE's objectives are to address USSOCOM air, ground and maritime operator mission planning gaps; enable a three-dimensional planning environment in a network disconnected environment; and migrate to a modern software architecture.

U-28A

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

craft 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, the command 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.

RC-26B AIRCRAFT

USSOCOM 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 SOF-peculiar communication and sensor suite.

NON-STANDARD AVIATION

The non-standard aviation (NSAV) mission provides dedicated intra-theater airlift and contractor logistics support (CLS) for the geographic combatant commander's theater special operations commands. The NSAV program delivers 21 light aircraft (11 Pilatus PC-12s and 10 M-28 Skytrucks) and 17 medium aircraft (Do-328s) to support command mobility requirements worldwide. All NSAV aircraft are modified with a common suite of military communications equipment. Light aircraft funding and deliveries began in FY08 and will continue through FY12. Of the 21 light aircraft, 10 PC-12s (including one trainer) have been procured and delivered to the 318th Special Operations Squadron at Cannon Air Force Base. NSAV initial operational capability was met when two of the PC-12s successfully forward deployed with full CLS in mid-2008. One M-28 was delivered to Cannon Air Force Base in late 2009, and four more were delivered in 2010. The remaining PC-12 and M-28s are scheduled to be procured and delivered between 2011 and 2012. The Do-328 aircraft procurement began in FY10. So far 12 aircraft have been contracted, and the last five aircraft will be contracted in FY12. The first Do-328 was delivered to the 524th Special Operations Squadron at Cannon Air Force Base in



An MQ-9 Reaper flies above Creech Air Force Base, Nev. [Photo courtesy of U.S. Air Force]

2011. The remaining aircraft will be delivered between 2011 and 2013.

UNMANNED AIRCRAFT SYSTEMS

Unmanned aircraft systems (UAS), from the U.S. Army RQ-11 small UAS (SUAS) to the larger U.S. Air Force MQ-1 Predator and MQ-9 Reaper systems, support many different requirements across each of the component commands.

The hand-launched all environment capable variant (AECV) of the SUAS family was fielded in FY09 to expand the operational environment of the current SUAS and provide SOF units with enhanced capability. In FY10, the AECV was upgraded with an encryption-capable digital data link to improve security and increase overall performance.

The medium altitude long endurance tactical (MALET) platforms are SOF-peculiar variants of the U.S. Air Force MQ-1s and MQ-9s. These platforms are equipped with capabilities to support SOF-peculiar missions and personnel. Capability enhancements include video transmission, IR modifications, signals intelligence, and delivery of low collateral damage weapons. USSOCOM currently operates a full squadron of MALET MQ-1s and eight MALET MQ-9s. The remaining MALET MQ-9 platforms are scheduled for delivery in FY11-12.

UAS systems are proving their value in a wide range of current combat operations by providing SOF with day and night surveillance platforms, ability to see over the next hill or corner, and "eyes in the sky" to protect them from improvised explosive devices. USSOCOM continues to develop and field advanced unmanned airborne capabilities in support of ongoing operations around the world.

PROGRAM EXECUTIVE OFFICE MARITIME

U.S. Navy Captain Richard Blank is the PEO for Maritime (PEO-M). PEO-M is dedicated to providing SOF warfighters with operationally effective and sustainable surface and subsurface maritime mobility platforms and maritime equipment.

PEO-M manages over \$1 billion of Major Force Program-11 (MFP-11) dollars over the current Future Years Defense Plan. PEO-M's MFP-11 management responsibility includes a wide latitude of control and decision-making authority for all budget activities, regardless of whether the USSOCOM program is managed within the PEO or by a program manager in a military department. PEO-M's portfolio includes 25 surface and subsurface acquisition programs and subprograms, with its primary customer being the Naval Special Warfare Command (NAVSPECWARCOM).

Subsurface programs include the SEAL Delivery Vehicle (SDV), Dry Deck Shelter (DDS), Diver Propulsion Device, Semi-Autonomous Hydrographic Reconnaissance Vehicle, Hydrographic Mapping Unit, Non-Gasoline Burning Outboard Engine, and a variety of related subsystems and pre-planned product improvement programs. New acquisitions under development include the Shallow Water Combat Submersible (SWCS) program and Dry Combat Submersible (DCS) Light and Medium programs.

SHALLOW WATER COMBAT SUBMERSIBLE PROGRAM

The SWCS program consists of a family of submersibles that includes a new wet submersible (SWCS Block I) capable of operating from existing DDS (and will replace the legacy SDV). Future submersibles may be wet or dry. They will be able to operate from future large ocean interfaces or surface ships, and they will provide the capability to conduct undersea missions in support of theater and national taskings. The primary method of launch and recovery will be from a DDS on board a host submarine, but alternative methods are available. The SWCS system



Members of SEAL Delivery Vehicle Team Two (SDVT-2) prepare to launch one of the team's SEAL Delivery Vehicles (SDV) from the back of the Los Angeles-class attack submarine USS Philadelphia (SSN 690) on a training exercise. [Photo courtesy of U.S. Navy]

includes an electric propulsion system; ballast control system; diver auxiliary life support system; and navigation, communication and sensor suites.

NEW UNDERSEA ACQUISITION STRATEGY

In August 2010, USSOCOM, with agreement from the undersecretary of defense acquisition, technology, and logistics, canceled the Joint Multi-Mission Submersible (JMMS) program due to affordability concerns. Although the JMMS program was canceled, the requirement for dry diver lock-out submersibles capable of conducting special operations remained. As an alternative to

JMMS, a new undersea acquisition strategy was developed to address this operational gap. The new strategy will build on other successful commercial-to-military acquisition programs. It will use state-of-the-art commercial submersible technologies, which will produce a family of submersibles with varying capabilities that are transportable, reliable, and affordable and fully meet the SOF requirement. These vehicles will operate from surface support ships and submarines equipped with the modified DDS, or future generations of the DDS. The Program Manager Undersea Systems, within PEO-M, has oversight of the DCS program.

SURFACE MOBILITY PROGRAMS

Surface mobility programs include the MK V special operations craft, Naval Special Warfare rigid-hull inflatable boat (NSW RIB), special operations craft-riverine, patrol boat-light, and combatant craft forward looking infrared systems, as well as a variety of related subsystems. New acquisition programs underway include the Combatant Craft Medium MK1 (CCM MK1), which is intended to replace the legacy NSW RIB, and the security force assistance craft.

Surface mobility programs are managed by both the Combatant Craft Program



U.S. Navy special warfare combatant-craft crewmen from Special Boat Team 22 conduct live-fire immediate action drills at the riverine training range at Fort Knox, Ky. [Photo courtesy of U.S. Navy]

Management Office (CCPMO) and the Combatant Craft Medium MK1 Program Management Office (CCM MK1 PMO). CCPMO has cradle-to-grave management responsibility for in-service NAVSPECWARCOM combatant craft systems. CCPMO duties include program acquisition strategy and planning; decision risk analysis; scheduling; funding profiles; resource allocation throughout the planning, programming, budgeting and execution system; design and engineering; production; fielding; and systems integration. The CCPMO also explores the commercial market for new technologies, foreign technologies and non-developmental items that offer innovative alternatives for current and future acquisitions. The CCPMO staff has the inherent capability to manage systems acquisition for engineering, procurement, program control, configuration, test, manufacturing and integrated logistics support. Currently, the CCPMO is responding to SOF requirements for new, more capable combatant

surface craft to replace legacy systems and to meet demands of the future.

Most recently, CCPMO fulfilled a NAVSPECWARCOM requirement for a Security Forces Assistance (SFA) craft that provides the capability to train with craft specifically matched to partner nations through individual education and training offered by the Naval Small Craft Instruction and Technical Training School. The SFA craft is capable of being transported on its trailer with an available prime mover. It operates in shallow confined waters and possesses a high degree of speed and maneuverability.

The CCM MK1 PMO is currently developing the CCM MK1, which will replace the legacy NSW RIB at the end of its service life. Additionally, the CCM MK1 will function as an interim replacement for the MK V special operations craft. The CCM MK1 will be a multi-role surface combatant craft with the primary mission of inserting and extracting SOF in low-to-medium threat environments. Compared with the NSW

RIB, the CCM MK1 will be faster; have longer range; operate in higher sea states; be more survivable against modern and future threats; have superior communications and situational awareness; and have increased shock mitigation for the crew and passengers. CCM MK1 is envisioned as an essential step in providing a modern, clandestine, agile, adaptive and operationally capable maritime craft as a force multiplier within the SOF structure.

ADDITIONAL ROLES

PEO-M actively participates in small business innovation research, joint capability technology demonstrations, and special operation special technology processes, which are administered by SORDAC's Directorate of Science and Technology. To fulfill these requirements, PEO-M serves as an interface among the end user, doctrinal proponent, developer, test evaluator and the USSOCOM staff.

PROGRAM EXECUTIVE OFFICE ROTARY WING

U.S. Army Colonel Doug Rombough is the Program Executive Officer for Rotary Wing (PEO-RW). PEO-RW is responsible for providing the special operations forces community with the most advanced vertical lift capability available to the U.S. military. With the realignment of the preparation and training portfolio, rotary wing simulation has been fully incorporated into PEO-RW and enhances the PEO's ability to provide a complete capability to its primary customer, the 160th Special Operations Aviation Regiment (SOAR). PEO-RW has placed emphasis on rotary wing transformation, with the initial focus on commonality of plat-



Coalition special forces wait for the MH-47G Chinook to land so they can extract their high value target. [Photo courtesy of U.S. Army]

forms and inventory reduction from 11 different platforms to three newer (and more capable) platforms while accommodating programmed growth in numbers. The rotary wing fleet now consists of the MH-47G Chinook, three different models of the MH-60 Blackhawk, and the A/MH-6M Little Bird. Additionally, a non-standard rotary

wing program has been added to the portfolio and includes the Mi-17 aircraft.

PEO-RW continues its focus on rotary wing transformation with growth in numbers and an increase in the capabilities of an already capable fleet of aircraft. Various mission equipment programs address increased payloads, lethality, survivability and situ-

tional awareness while decreasing crew workload. Additionally, PEO-RW is involved in providing SOF with an increased future vertical lift capability through the execution of developmental programs such as the YMQ-18A vertical lift unmanned aerial system and participation in the undersecretary of defense-science and technology-led future vertical lift science & technology working group.

Along with the Technology Applications Program Office at Fort Eustis, Va., the PEO-RW

mission is primarily accomplished by integrating SOF-peculiar mission equipment packages onto proven U.S. Army helicopter platforms. This acquisition strategy supports the SOF warfighter while providing USSOCOM with a cost-effective method of supplying a SOF-peculiar helicopter to complete its world-wide mission. Both the U.S. Army

and USSOCOM benefit from the partnership of merging U.S. Army and SOF-peculiar components and technologies.

MH-47G CHINOOK

The heavy lifter of the SOF rotary wing fleet is the venerable MH-47G Chinook. With a maximum gross weight of 54,000 pounds and the ability to travel at more than 150 knots, the MH-47G provides SOF with a proven, durable workhorse that fulfills a variety of missions around the world.

In March 2011, the Boeing Co. delivered the final remanufactured aircraft of the 61 MH-47Gs included in the service life extension program. The final 3 aircraft are under post-production modifications and upgrades at the Special Operations Forces Support Activity in Lexington, Ky. The modifications include the Common Avionics Architecture System (CAAS); Suite of Radio Frequency Countermeasures (SIRFC); 2,000 gallon fuel tanks; aerial refueling probe; multi-mode

radar; and several other significant improvements to ensure the aircraft's relevance in the 21st century and beyond.

The MH-47G was deployed in FY07 and is supporting deployed SOF in multiple locations. Based on the 2010 Quadrennial Defense Review, planning has started for a new-start MH-47G program to increase the total number of MH-47Gs to 69 by FY15.

MH-60M BLACKHAWK

Complementing the MH-47G is the medium lift MH-60M Blackhawk. The SOF Blackhawk supports two configurations: a troop transport configuration and a defensive armed penetrator (DAP) configuration. The DAP aircraft provides armed security for the MH-47G and other MH-60 aircraft. The MH-60M modernization program began delivering new-build MH-60M aircraft in second quarter FY11. Once complete, the MH-60M modernization program will provide the 160th SOAR with 72 MH-60M SOF-peculiar

Blackhawks. The MH-60 program will complete its transition to a common MH-60M fleet in FY14.

The MH-60M SOF modernization program takes Sikorsky's new-build UH-60M aircraft from the U.S. Army and modifies them with SOF-peculiar mission equipment. The MH-60M aircraft will feature CAAS, SIRFC, wide-chord rotor blades, active vibration reduction and the improved electro-optical sensor system. The most significant modification, however, is the incorporation of two General Electric YT706-GE-700 engines. These 2,500 shaft horsepower engines give the aircraft a high/hot capability unmatched by any H-60 variant currently fielded. As the MH-60M is fielded, 160th SOAR will continue phasing out the current MH-60K/L fleet.

A/MH-6M LITTLE BIRD

The A/MH-6M Little Bird program transforms a civilian McDonnell Douglas 500-series aircraft into the mission

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enhanced Little Bird through a series of SOF-peculiar 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 is fully configurable and is capable of serving in an attack or assault role.

The upgrade to Block 1.0 configuration was completed in July 2009. The aircraft is currently being upgraded to Block 2.0 configuration to improve the mission processor, transponder, Ethernet data bus, and embedded global inertial navigation system. A Block 3.0 configuration is in the planning stages to upgrade cockpit avionics, airframe structures, and rotor systems. The serial block upgrade acquisition strategy is designed to extend the service life of the A/MH-6M while analyzing the long-term alternatives for replacement.

NON-STANDARD ROTARY WING

The non-standard rotary wing (NSRW) program facilitates the aviation foreign internal defense (AvFID) effort. It uses NSRW aircraft to conduct training with partner nations (PN) in support of U.S. strategic objectives. Core AvFID objectives are to train, advise and assist PNs in various areas of day and night operations. The primary purpose of these systems is to provide airlift, mission support and training where standard aircraft would not effectively support the SOF mission. The NSRW Aircraft Program Management Office, in concert with PEO-RW, will procure Mi-17 Hip aircraft in support of the AvFID mission performed by the Air Force Special Operations Command.



The new special operations MH-60M Blackhawk brings many impressive capabilities, including state-of-the-art day and night optics systems, enhanced integrated weapons systems, multi-mode radar with all-weather capability and new high-performance engines. [Photo courtesy of 160th SOAR]

YMQ-18A UNMANNED AERIAL SYSTEM

The A-160T vertical lift unmanned aerial system (UAS) received the DoD mission design series YMQ-18A in 2009. The YMQ-18A is a SOF-peculiar unmanned helicopter produced by Boeing. It is designed as a long-endurance vertical take-off and landing UAS, with a demonstrated flight in May 2008 of 18.7 hours with a 300-pound payload. During a recent operational assessment (outside the continental United States), the YMQ-18A demonstrated a 10.5-hour flight with a 1,000-pound payload. The aircraft's current maximum gross weight is 5,500 pounds, with a design objective of 6,500 pounds, and has demonstrated speeds

over 140 knots with a design objective of 165 knots. The YMQ-18A's mission radius is designed to exceed 300 nautical miles upon completion of ongoing beyond line-of-sight control capability integration.

The YMQ-18A's speed and endurance is combined with a designed service ceiling of 20,000 feet mean sea level (MSL) based on the commercial off-the-shelf Pratt & Whitney 207D turbine engine certification and a demonstrated out-of-ground effect hover of 20,000 feet MSL. Although there is an immediate interest in intelligence, surveillance, and reconnaissance and precision resupply, the YMQ-18A is designed to support a variety of modular payloads and a wide range of mission scenarios to meet the ever-changing demands of SOF.

PROGRAM EXECUTIVE OFFICE SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION

Douglas J. Richardson, senior executive service, is the Program Executive Officer for Special Reconnaissance, Surveillance, and Exploitation (PEO-SRSE). PEO-SRSE is responsible for the acquisition, fielding and sustainment of intelligence collection, processing, exploitation and dissemination systems for SOF. The current and projected threats to our national security continue to evolve in response to the increased techno-

logical sophistication and effectiveness of our fielded capabilities. PEO-SRSE acquisition strategies have evolved as well—relying primarily on innovative contracting approaches; robust systems engineering processes; evolutionary technology insertions; and a prudent balance of cost, schedule and performance requirements.

In August 2010, PEO-SRSE's original capability portfolio of tagging, tracking and

locating (TTL); sensor; and biometrics and forensics systems was expanded to encompass intelligence analysis and training and planning systems, including the intelligence information-sharing environment. PEO-SRSE also executes research and development activities under its rapid capabilities insertion (RCI) program office. The general areas of focus for each of these product areas are summarized below.

TAGGING, TRACKING, AND LOCATING SYSTEMS

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 and finish 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.

SENSOR SYSTEMS

The Special Operations Tactical Video System/Reconnaissance Surveillance Target Acquisition program provides sensor sys-

tems 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 imagers and data transmission devices to fully automated, programmable unattended ground sensors emplaced by SOF operators that support information and intelligence-gathering operations. Operations planning and decision-making capabilities are further enhanced with real-time and near real-time capture and transfer of imagery and data, increased situational awareness, and state-of-the-art information display and processing.

BIOMETRICS AND FORENSICS SYSTEMS

Biometrics and forensics system equipment provide SOF with the capability to rapidly and efficiently examine and exploit sensitive sites. The collection of forensic evidence and the identity verification of personnel detained on-site produce actionable

intelligence that expedites SOF decision-making processes on the ground. 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 U.S. bases and installations.

JOINT THREAT WARNING SYSTEM

The Joint Threat Warning System (JTWS) provides SOF with a family of signals intelligence (SIGINT) systems that enable SOF operators to provide their operational commanders with direct and applicable force protection, threat warning, target identification and enhanced situational awareness information. The JTWS family of systems is configured into four variants:

1. Ground SIGINT Kit (GSK)—light-weight mobile/body-worn and team transportable/GSK static system with



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- remoting and reach-back capability configurations for SOF ground forces;
2. Air variant, which provides SIGINT equipment for Air Force Special Operations Command;
 3. Precision Geo-Location-SIGINT system, which provides accurate locations for various signals of interest; and
 4. Maritime variant, which provides situational awareness information for the SOF MK-V patrol boat.

JTWS uses an evolutionary acquisition strategy with spiral development based on the latest improvements in technology. JTWS provides systems that are integrated and, as a result, a single interface controls multiple capabilities. It has common software; therefore, the program develops solutions once and then exports those solutions to all variants. Because it is upgradeable, JTWS eliminates stovepipes and delivers a new software/hardware system that works in the existing environment. JTWS is scalable, allowing operators to task-organize equipment based on mission and anticipated signal environment. Additionally, JTWS addresses power and weight challenges by using low-weight, alternative power sources and busing conformal antennas and wireless devices.

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 intelligence, surveillance and reconnaissance (ISR) data. DCGS-SOF is a system of systems integrated across the SOF information environment and with DoD DCGS. It is focused on developing solutions that will satisfy both current and future SOF-peculiar capability gaps and provide essential organic network-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 the DoD.

INTEGRATED SURVEY PROGRAM

The Integrated Survey Program (ISP) supports Joint Chiefs of Staff contingency planning by conducting comprehensive technical surveys worldwide, where U.S. citizens or national interests may be at risk. The ISP surveys produce detailed tactical planning data on high-threat locations and supplies the necessary information to support operational planners in formulating their tactical plans to conduct permissive or non-permissive evacuations and/or hostage rescue missions. The ISP supports the short-notice, quick turn-around of critical operational planning data during ongoing crises and contingency operations. The program consists of two sub-systems: the Data Survey System (DSS) and the Production System (PS).

DSS consists of commercial off-the-shelf (COTS) and government off-the-shelf (GOTS) software and hardware that comprise items such as digital still and video cameras, laptops, global positioning systems, rangefinders and common software applications. The PS consists of integrated COTS and GOTS applications and hardware fielded to the USSOCOM Intelligence Directorate. The ISP production responsibilities are in part delegated under the DoD intelligence production program.

COUNTER-PROLIFERATION ANALYSIS AND PLANNING SYSTEM

The Counter-proliferation Analysis and Planning System (CAPS) program funds engineering assessments of hostile nation and non-state actor weapons of mass destruction (WMD) programs, facilities and activities as directed by the assistant to the secretary of defense for nuclear, chemical, and biological programs. Assessments address DoD priorities and are used in ongoing updates to

DoD contingency plans to counter WMD threats. These assessments leverage engineering competencies to:

1. analyze proliferators' weapons production capabilities and processes at multiple levels;
2. identify detectable signatures of proliferation; and
3. communicate information to decision-making agencies through DoD's computer architecture.

Assessments are continuously updated to retain relevancy and support contingency planning. CAPS supports DoD and partner agency activities to understand and categorize WMD proliferation activities at multiple levels throughout the world.

SPECIAL OPERATIONS FORCES PLANNING, REHEARSAL, AND EXECUTION PREPARATION

Special Operations Forces Planning, Rehearsal, and Execution Preparation (SOFPREP) provides enhanced geospatial intelligence (GEOINT) data and three-dimensional scene visualization databases to support SOF operators worldwide. As a focal point for gathering sophisticated geospatial intelligence source data and the generation of databases, SOFPREP integrates applications to support SOF mission and training preparation systems. GOTS/COTS systems acquire and consolidate elevation, feature, maps, imagery and other source data required for database production. Systems validate the geospatial accuracy and certify the use of data in the completed databases and datasets. GEOINT and three-dimensional scene visualizations are also archived for use in contingency planning, humanitarian assistance and response to natural disasters. Geo-specific training databases use Common Database, Medallion, and VITAL formats for SOF simulators. SOFPREP helps SOF units set the course and understand the area of operations before they get there.

TECHNICAL SUPPORT SYSTEMS

The Technical Support Systems Office acquires and sustains common items and

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Target development, prioritizing critical nodes, and identifying potential IEDs prior to counter-insurgency operations remains a pressing ISR challenge. Capturing imagery in extraordinary detail, GA-ASI's Highlighter airborne EO sensor package features a NIIRS 8 rating, sees imagery in 3D, and provides near real-time tasking, processing, exploitation, and dissemination (TPED) for unprecedented situational awareness. Highlighter's high-resolution imagery minimizes the unknowns – before boots hit the ground.

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supporting systems and services that have application across the entire PEO-SRSE product portfolio. These enabling capabilities include data dissemination architectures, integration facilities, power and antenna subsystems, cabling, concealments, miniaturization and anti-tamper measures.

PEO-SRSE also oversees and manages identification and leveraging of critical enabling technologies under its RCI program, which include tactical exploitation of national capabilities (TENCAP), special reconnaissance capabilities (SRC), and clandestine tagging, tracking and locating (CTTL) programs. The key to the PEO's success in this area is constant contact with the user and acquisition communities of interest, including their involvement in project selection and transition planning.

TACTICAL EXPLOITATION OF NATIONAL CAPABILITIES

TENCAP is an intelligence systems research and development, rapid prototyping program 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 on space-based intelligence and communications technologies and systems.

SPECIAL RECONNAISSANCE CAPABILITIES

The SRC program identifies, integrates and operationalizes technical tools for the collection of actionable information against a variety of targets and mission require-

ments. The program maintains DoD's online catalog of ISR tools to minimize crisis response time for special reconnaissance and surveillance missions.

CLANDESTINE TAGGING, TRACKING, AND LOCATING

CTTL 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 warfighter-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.

PROGRAM EXECUTIVE OFFICE SPECIAL OPERATIONS FORCES WARRIOR

U.S. Army Colonel Jim Smith is the Program Executive Officer for Special Operations Forces Warrior (PEO-SW). PEO-SW provides rapid and focused acquisition of SOF-peculiar capabilities to USSOCOM operators conducting decisive ground SOF activities and global operations against terrorist networks. PEO-SW manages a portfolio that includes more than 160 programs and projects, using an investment budget of over \$4 billion of MFP-11 funds over the Future Years Defense Plan.

The portfolio includes five primary commodity areas: ground mobility, visual augmentation systems (VAS), ammunition/demolition, weapon systems, and soldier protection and survival systems.

The focus is on rapid acquisition of capabilities that allow the SOF warfighter to successfully carry out the mission in a constantly changing environment. To enable rapid acquisitions, PEO-SW works closely with other government organizations, the services, and industry to leverage existing research and development and emerging capabilities. In addition, PEO-SW seeks efficiencies by using existing support infrastruc-



A U.S. Army soldier, from 1st Battalion, 10th Special Forces Group, trains on the advanced mobility course on an all terrain vehicle, in Boeblingen, Germany. [Photo courtesy of U.S. Army]

tures and developing cost-effective training and sustainment strategies. By reducing life cycle costs, the PEO can optimally apply limited resources to meet the requirements of the SOF warfighter today and in the future.

GROUND MOBILITY

PEO-SW is responsible for the acquisition and product improvement of special operations vehicles in five main categories: individual, light, commercial, medium, and heavy.

Primary systems being managed within this ground mobility portfolio include the all-terrain vehicle (ATV); the lightweight tactical all-terrain vehicle (LTATV); the non-standard commercial vehicle (NSCV); the ground mobility vehicle (GMV); the SOF RG-31 and RG-33 mine resistant ambush protected vehicle (MRAP); and the MRAP all-terrain vehicle (M-ATV). Currently, PEO-SW manages procurement of over 800 of these specialized vehicles and sustainment of more than 1,900 vehicles in

support of the unique needs of USSOCOM's component commands.

ALL-TERRAIN VEHICLE

The ATV provides individual, all-terrain mobility to deployed SOF in austere locations and across a myriad of special operations missions. The vehicles are extremely flexible and internally transportable within rotary wing assets, and they allow fully combat-equipped SOF operators to move around the battlespace rapidly in terrain not easily navigated by larger,

heavier vehicles. ATVs have been used effectively as mission platforms in conjunction with larger vehicles and will continue to be used to meet the complete mission profile of individual mobility platforms in the SOF community. In 2011, PEO-SW will begin replacing previously fielded ATVs due to age attrition.

LIGHTWEIGHT TACTICAL ALL-TERRAIN VEHICLE

The LTATV is a side-by-side seat vehicle that provides a light, all-terrain capability to allow SOF to undertake operations across a wide variety of missions with increased mobility and maneuverability. The LTATV is internally transportable by H-47 and V-22 variant aircraft; carries two personnel; can be used for a multitude of operations from logistic support to casualty evacuation; and provides a high degree of speed and mobility over rough terrain. To date, 147 LTATVs have been fielded, and an additional 72 will be fielded this year.

NON-STANDARD COMMERCIAL VEHICLE

The NSCV is a commercial vehicle with varying levels of modification, depending upon mission need. Models include, but are not limited to, pick-up trucks, sport utility vehicles, sedans and vans. Vehicles can range from unarmored and low-profile to heavily armored and overtly military. They may be equipped with or without C4ISR capabilities. NSCVs provide SOF with the capability to conduct missions where there is no military logistical presence and where vehicles must be maintained on the local economy.

GROUND MOBILITY VEHICLE

The GMV is a standardized joint SOF combat vehicle with the operational flexibility to support the SOF core activities of direct action, special reconnaissance, unconventional warfare, counterterrorism, security force assistance and counterinsurgency operations. The GMV is currently an M1165A1B3 high mobility multi-purpose wheeled vehicle with modifications that enable SOF operators to conduct unique missions. Current efforts include developing lighter weight solutions



An M-ATV, the newest MRAP vehicle. [Photo courtesy of DoD]

to existing components and a C4ISR suite that has a reduced footprint, enabling more mission-related cargo. This year 116 GMVs will be fielded, bringing the quantity of GMVs being sustained to 1,248.

The GMV will also undergo a capability production document update and an increment of production change to provide SOF with a highly agile, maneuverable, long-distance ground vehicle. The GMV 1.1 will focus on mobility and lethality while being internally air-transportable in aircraft such as the H-47 variants, in addition to providing net-ready capabilities, power, and support to multiple missions in various configurations. PEO-SW will be seeking potential materiel solutions beginning later this year.

MINE RESISTANT AMBUSH PROTECTED VEHICLES

PEO-SW is in the final phase of MRAP procurement. By the end of 2011, 618 RG-31s/RG-33s/RG-33 auxiliary utility vehicles will be in the hands of SOF war fighters. These vehicles provide protection for SOF operators against expanded use of improvised explosive devices, and they provide a lethal offensive capability in the form of an integrated remote weapon station. Also this year, PEO-SW will complete a block upgrade for the existing RG-33 fleet. This upgrade includes the installation of an improved suspension system for enhanced mobility and other changes identified as emerging requirements from the operators in the field.

MRAP ALL-TERRAIN VEHICLE

The newest vehicle in the MRAP family is the M-ATV, which provides a mine-resistant all-terrain vehicle capability specifically for small unit combat operations in highly restricted rural, mountainous and urban environments. USSOCOM determined that approximately 30 modifications must be made to the vehicle to provide a platform with greater protection and mobility, including a larger windshield, improved gunner's platform, rear cargo access door, protection for the cargo bed, and several safety-related items. A total of 61 M-ATVs are fielded to date, and a total of 455 will be fielded by the end of FY11.

VISUAL AUGMENTATION SYSTEMS

VAS allow the SOF operator to conduct missions in a 24/7 environment. The VAS commodity area provides systems that allow a day/night operations capability; improved visual augmentation through battlefield obscurants; and an all-weather capability for fire control, surveillance and land navigation.

The VAS commodity area focuses on material solutions for head-mounted goggles, weapon-mounted night vision sights and day scopes, handheld imagers, ground vehicle-mounted systems for drivers and crewmembers, and laser range finders and designators to ensure the accurate delivery of laser- or satellite-guided missiles and munitions. Emerging requirements include sensor and clip-on thermal image fusion, expanded field-of-view, color night vision goggles, digital technology, a SOF VAS accessory kit, SOF VAS countermeasures, and the handheld laser marker (HLM).

During 2010, PEO-SW fielded 152 ground vehicle-mounted systems; 409 sniper night sights; 1,245 handheld imagers; 2,942 head-mounted night vision goggles; and 138 laser designators. Significant new fielding includes the clip-on thermal imager, which provides the operator with the capability of a fused I2 [image intensified] thermal image using the existing PVS-15 night vision goggles, and the HLM, which provides a small, lightweight, handheld capability to mark targets for close air support missions.

AMMUNITION/DEMOLITION

PEO-SW develops, acquires and manages SOF-peculiar ammunition, demolition and breaching devices that provide SOF operators with standoff and precision capabilities for target sets and mission scenarios. The ongoing programs include the multi-purpose anti-armor anti-personnel weapon system (MAAWS); shoulder-fired lightweight assault weapon (LAW); improved flash bang grenade (IFBG) program; and anti-structural munition (ASM) hand grenade.

Multi-purpose Anti-armor Anti-personnel Weapon System

The MAAWS capability provides an 84 mm recoilless, shoulder-fired, man-portable, line-of-sight, re-loadable, anti-armor and anti-personnel weapon system. PEO-SW fielded 4,065 MAAWS rounds in FY10. The MAAWS development effort includes the ASM round for destruction of buildings, and a multi-target round to penetrate hard brick and concrete structures and deliver a second lethal explosive charge inside the building.

Lightweight Assault Weapon

LAW development activities include adding a fire-from-enclosure capability, allowing the warfighter to fire both variants (M72A7 anti-armor and M72A9 anti-structure rounds) from confined spaces. The improvements are also dramatically reducing the firing signature of the projectiles as they leave the weapon, helping to conceal the location of the shooter. This enhancement program is a joint effort with the U.S. Marine Corps.

Improved Flash Bang Grenade

An IFBG development effort is underway with funding from the Joint Non-Lethal Weapons Program to improve the currently fielded flash bang devices. This program will increase the visual flash incapacitation; remove all the perchlorate oxidizers from the payload; and decrease the smoke output while keeping all other grenade parameters the same. Removal of the perchlorates will ensure that the DoD is in compliance with new Environmental Protection Agency regulations.

Anti-Structural Munition Hand Grenade

The ASM hand grenade is being developed to provide SOF operators with a unique capability to deliver a powerful blast at close ranges.

WEAPON SYSTEMS

In the weapon systems commodity area, PEO-SW develops, acquires, and manages weapons and ammunition that provide SOF with high reliability and precision capabilities to increase combat effectiveness.

During FY10, the combat assault rifle (CAR) family of weapons and the “sniper variant” of the MK17 CAR Heavy—the MK20 sniper support rifle (SSR)—received full rate production approval. Also, the Naval Special Warfare Command (NAVSPECWARCOM) received approval to field a new .45 caliber combat assault pistol. In addition to the weapons accomplishment, 30,900 initial issue weapons accessories were fielded to operational SOF units. New weapon designs developed during the past year include the aforementioned MK20 SSR, which will replace the light sniper systems beginning in third quarter FY11, and the MK17 “common receiver,” which has evolved into a simple 5.56 mm parts kit. The MK17, configured with this parts kit, is capable of firing 5.56 mm ammunition, thereby, achieving the caliber modularity objective of the CAR program. During FY10, efforts were initiated to transition the MK48 7.62 mm machine gun from USSOCOM to the U.S. Navy as a common service item. This effort is slated for completion in FY11 and, beginning in FY12, NAVSPECWARCOM will start receiving their MK48 support from the U.S. Navy.

The weapons discussed above require specific ammunition. More than 6.5 million rounds of enhanced SOF small arms ammunition was fielded in FY10. The enhanced ammunition consists of the 5.56 mm and 7.62 mm rounds, the 7.62 mm special ball long range, and the 220 Grain 300 WINMAG product improved sniper round. All rounds provide the SOF warfighter with better accuracy and increased and consistent terminal ballistic effects. In addition, they are insensitive to extreme temperatures and significantly reduce visible signature. The 220 Grain round extends the range of the current MK13 MOD5 rifle from 1,200 to 1,400 yards.

Air bursting MK285 pre-fragmented programmable high explosive ammunition was



Para-Commandos, the parachute team, demonstrate their skills. [Photo courtesy of USSOCOM]

fielded in 2010. The advanced lightweight grenade launcher MK47 weapon system and MK285 air bursting ammunition enables SOF to reliably deliver accurate fire against targets in defilade positions.

A number of weapons accessories successfully completed operational test for crew served weapons. These accessories will operationally enhance the M2-HB .50 caliber by providing aiming, illuminating and targeting capabilities not presently available for enhanced target recognition and engagement. Fielding is scheduled for fourth quarter FY11.

The solicitation for the precision sniper rifle (PSR) system was issued, and source selection was conducted in FY10 with contract award scheduled for late FY11. PSR will increase the effective range of the SOF sniper to 1,500 meters and beyond and is envisioned to replace the existing M24 and MK13 Sniper Systems for anti-personnel engagements. A future increment will seek to replace the M107 and MK15 “heavy sniper rifle” for anti-materiel engagements.

SOLDIER PROTECTION AND SURVIVAL SYSTEMS

The SOF operator is our combat multiplier. Soldier protection and survival systems are designed to protect and enhance the survivability of operators, allowing them to perform in any battlefield and environmental conditions. This section illustrates direct responses to operator needs for personal protection from ballistic threats and environmental conditions; tactical combat

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casualty care; and countering of radio-controlled, improvised explosive devices.

The SOF Personal Equipment Advanced Requirements (SPEAR) and SOF Tactical Combat Casualty Care (TCCC) programs provide individual ground and medical equipment for special operations. The SPEAR program fields equipment that is worn or carried by SOF warfighters to increase their survivability, mobility and effectiveness. During 2010, PEO-SW fielded 2,000 sets of body armor, 5,686 body armor vests, 562 helmets, 6,882 VAS mounts, 2,099 load carriage systems, 13,990 combat backpacks, 3,909 protective combat uniforms, 3,870 modular glove systems, 1,924 sets of eye protection and 6,456 communications headsets. All SPEAR products are designed and developed for increasing modularity to reduce the weight of operator equipment, providing a greater range of movement.

The SOF TCCC program provides for individual first aid kits, combat medic kits and casualty evacuation (CASEVAC) sets. During 2010, PEO-SW fielded 9,403 operator first aid kits and 1,304 combat medic kits. USSOCOM continues to focus robust efforts in the medical research and development arena to discover new lifesaving technologies that can benefit our SOF warfighters at the point of injury, often in remote, denied areas.

A high priority requirement for the medical commodity area, the CASEVAC sets provide SOF with an organic capability to extract, stabilize, mobilize and transport from the point of wounding to the point of definitive medical treatment. In August 2010, USSOCOM awarded multiple contracts to system integrators to produce demonstration models of a CASEVAC set. The current schedule supports an initial fielding

of a CASEVAC set—which consists of a broad range of medical and casualty evacuation capabilities, such as extraction, mobility, transport and sustainment modules—to SOF units in FY12.

The SOF Counter Radio Controlled Improvised Explosive Device Electronic Warfare (CREW) program provides continuous threat detection and neutralization against a range of high- and low-powered remote-controlled threats. SOF CREW systems include both vehicle-mounted and dismounted systems, the EGON and THOR II, respectively. During 2010, PEO-SW completed production and fielding of both systems, while sustaining and upgrading over 2,300 fielded EGONS and 370 THOR-IIIs. For 2011, PEO-SW will continue development of cutting-edge, advanced force protection and electronic warfare capabilities to equip the SOF operator.

PROGRAM EXECUTIVE OFFICE COMMAND, CONTROL, COMMUNICATIONS, AND COMPUTERS

Tony Davis is the PEO for command, control, communications and computers (C4). Chartered in March 2009, PEO-C4 manages the development, acquisition and fielding of C4 and Military Information Support Operations (MISO) systems that collectively form the SOF Information Enterprise (SIE). The SIE is an extension of DoD's Global Information Grid (GIG) that provides additional SOF-peculiar capabilities and extends those capabilities to remote and austere locations. The SIE allows garrison and tactical SOF users to reach back into the GIG to access national assets, allowing SOF elements to operate with any force combination in multiple environments.

PEO-C4's portfolio consists of 17 programs with a budget of over \$3.8 billion across the Future Years Defense Plan. It includes five primary capability areas: enterprise networks, transport systems, tactical communications, enterprise tools, and MISO and civil affairs systems.

Future efforts will continue to focus on integration of state-of-the-art technologies and standardization throughout the SOF community. An additional future priority is ensuring that voice,

video, data and services, regardless of the source, can be properly accessed, processed, stored and made available immediately to worldwide SOF users through enterprise services. PEO-C4's efforts emphasize the utilization of commercial off-the-shelf products and the leveraging of DoD and other government agencies' programs to supplement SOF capabilities.

ENTERPRISE NETWORKS

The Enterprise Networks Division is responsible for designing, acquiring, fielding and sustaining the garrison and tactical network automation infrastructure systems. It manages three PEO-C4 programs as well as the SOF Integration Facility, where testing and integration of enterprise hardware and software is accomplished. Programs include the Special Operations Command Research, Analysis, and Threat Evaluation System (SOCRATES); C4 and Intelligence (C4I) Automation Systems (C4IAS); and Tactical Local Area Network (TACLAN).

SOCRATES is the SOF extension of the Joint Worldwide Intelligence Com-



The L-3 Communications Rover hand-held unit provides comms on the move for special operators. [Photo courtesy of L-3 Communications]

munications System (JWICS) network and is used to develop, acquire and support garrison automated intelligence system requirements for SOF organizations worldwide. C4IAS is the SOF extension of the Non-Secure Internet Protocol Router Network, known as NIPRNet, and Secure Internet Protocol Router Network, known as SIPRNet, and it is used to acquire and support garrison command, control and collaboration requirements for SOF organizations worldwide. TACLAN is the tactical equivalent of the

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Capability STARTS WITH THALES.



THALES

SOCRATES and C4IAS systems; it is used to develop, acquire and support tactical command, control and collaboration requirements for SOF operational commanders and forward deployed forces.

The enterprise networks programs are an important contributor to realizing some of the USSOCOM 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 spiral development, acquisition, and implementation of next-generation technology solutions.

TRANSPORT SYSTEMS

The Transport Systems Division is responsible for developing, acquiring, fielding and sustaining the SIE transport systems. It manages three PEO-C4 programs: SOF Deployable Node (SDN), Product Distribution System (PDS), SCAMPI Wide Area Network.

The SDN program fields command and control (C2) packages utilizing tri/quad band satellite communications (SATCOM) systems; very small aperture terminals; International Maritime Satellite Broadband Global Area Network packages; microsatellite terminals; beyond line- and line-of-sight extension capabilities; and the SCAMPI Wide Area Network. The SDN portfolio is composed of heavy, medium and light evolutionary technology insertion subprograms, as well as a capital equipment replacement program. The SDN systems provide unclassified and classified voice, data, video teleconferencing and full motion video support to SOF personnel.

The PDS provides the SATCOM transport path for the worldwide MISO architecture. PDS consists of four different variants: PDS-fixed, PDS-heavy internet protocol presence, PDS-medium, PDS-light.

Each variant is used at different levels of command, from the media operations complex to the tactical MISO teams, in order to link MISO planners with review/approval authorities, production facilities, and dissemination elements.

The SCAMPI Wide Area Network is the telecommunications system that dis-

seminates information between headquarters USSOCOM, SOF-deployed forces, component commands and major subordinate units, theater special operations commands, and selected government agencies and activities directly associated with the SOF community.

TACTICAL COMMUNICATIONS

The Tactical Communications Division is responsible for acquiring, fielding and sustaining the tactical communications segment of the SIE. It manages four PEO-C4 programs: Blue Force Tracking, Joint Tactical C4I Transceiver System, Joint Base Station/Radio Integration System, and SOF Tactical Communications.

These tactical radio systems provide the critical C2 link between SOF commanders and SOF teams deployed globally. They also provide interoperability with all services, various government agencies, air traffic control, commercial agencies and coalition forces, allowing SOF to operate with any force combination in multiple environments.

ENTERPRISE TOOLS

The Enterprise Tools Division is responsible for designing, acquiring, fielding and sustaining enterprise business tools, software and systems to assist with the command's business processes. Current business tools/systems include the special operations resources and business information system (SORBIS) and classified C4I software applications and programs.

SORBIS is an effort that will provide an enterprise business system capability to facilitate planning, programming, budgeting, execution and program information reporting. The application's software and hardware will be located on the command's SIPRNet, and it will consist of a flexible user interface for data entry and retrieval and automated generation of necessary planning, programming, budgeting and execution documents. It will also contain flexible business intelligence reporting tools for creating standard, ad hoc and dashboard reporting, databases, and data management tools.

The classified software applications include programs that support deployed

forces, situational awareness, and other command and control tools.

MILITARY INFORMATION SUPPORT OPERATIONS AND CIVIL AFFAIRS SYSTEMS

The MISO and Civil Affairs Systems Division is responsible for developing, acquiring, fielding and sustaining the MISO segment of the SIE. It manages several programs, including MISO-Broadcast (MISOB), Next Generation Loudspeaker System (NGLS) and MISO-Print (MISOP).

MISO-BROADCAST

The MISOB program is an umbrella program. Systems under the MISOB umbrella include the media production center heavy, medium, and light; special operations media system-broadcast (SOMS-B); fly-away broadcast system (FABS); and PDS. These systems primarily provide the capability to develop, produce, distribute and disseminate MISO products to overseas target audiences.

SOMS-B provides a tactical, mobile and deployable radio and television system for developing and disseminating MISO audio and video products. The FABS provides tactical and deployable, transit-case-packaged, modular commercial software-defined radio and television systems capable of producing and disseminating MISO audio and visual products.

NEXT GENERATION LOUSPEAKER SYSTEM

The NGLS program replaces the legacy family of loudspeakers. The objective of this program is to develop, integrate, acquire and field transportable audio broadcast systems that provide MISO forces with the ability to reach target audiences with high-quality audio broadcast in friendly, denied, hostile or remote environments. NGLS is a system of systems consisting of six variants:

1. Manpack, a loudspeaker optimized for dismounted operations and flexibility of employment to pinpoint targets.

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2. Ground Vehicle/Watercraft, a high-decibel loudspeaker system that can be attached to a wide variety of military and commercial ground vehicles and watercraft—optimized for effective employment in support of ground, riverine, littoral, coastal and open-water operations.
3. Unmanned Ground Vehicle, a loudspeaker system optimized for broadcasting in higher threat environments in support of ground operations.
4. Unmanned Aircraft System, a loudspeaker system optimized for broadcasting to dispersed audiences in higher threat environments to broaden the areas of loudspeaker accessibility and increase mobility.
5. Scatterable Loudspeaker, hand-emplaced or air-delivered loudspeakers for disseminating

delayed or on-cue response messages that may be long- or short-duration and integrated with other media programs such as greeting cards, games, etc.

6. Sonic Projection, a long-range beam of sound that does not have an obvious source to the intended target or listener.

MISO-PRINT

The MISOP program acquires, fields and sustains MISO Systems for creating, editing and producing MISO printed materials. The MISOP program is an umbrella program of four variants with varying capability and deployability:

1. MISOP-Heavy, used to produce high-volume, high-quality print requirements of geographic combatant

commanders (developed at a fixed location at Fort Bragg, N.C.);

2. MISOP-Medium (fixed), an intermediate print facility outside the continental United States that supports geographic combatant commands;
3. MISOP-Medium, a large, deployable print system with a moderate volume print capability (combatant commander's primary print asset in theater);
4. MISOP-Light, a rapidly deployable capability used for immediate printing support at the theater and tactical levels (provides less print volume, but provides the initial print capability until the MISOP-Medium arrives in theater).

Any overflow, high-quality or special print requirements are filled by the MISOP-Heavy. All four variants work in unison to support all print system mission requirements.

PROGRAM EXECUTIVE OFFICE SPECIAL OPERATIONS FORCES SUPPORT ACTIVITY

U.S. Army Colonel Tim Chyma is the PEO for Special Operations Forces Support Activity (SOPSA), based out of Bluegrass Station in Lexington, Ky. Chyma leads a staff responsible for executing USSOCOM's largest service contract vehicle, which provides a wide range of tailored contractor logistics support (CLS) to the command's SOF service components and warfighters 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 (CLSS). To meet this mission, PEO-SOFSA partners with both the warfighter and the SOFSA prime contractor, Lockheed Martin SOF CLSS (LM SOF CLSS), to ensure best value logistics services and products are being provided to meet the mission-critical, time-sensitive needs of the SOF community.

FY10 was an ambitious time for PEO-SOFSA, as it accepted its new role within the PEO structure of SORDAC and oversaw the first-ever transfer of contractor sup-

port in the 19-year history of the SOFSA contract operation. The new SOFSA contract was awarded to Lockheed Martin Information Systems and Global Solutions in June 2010. A four-month contract transition period immediately followed. Efforts included the complex novation of the old contract and its active task orders; transfer of 150 task orders, more than 3,000 employees, 20 million pieces of property and 40 facilities representing 2 million square feet; and assumption of all elements associated with running the SOFSA enterprise (e.g., network operations, facility management, environmental/safety/health services, security operations, supply/transportation operations, telecommunications). In October 2010, the LM SOF CLSS was singularly responsible for contract execution. PEO-SOFSA management continues to work closely with LM SOF CLSS as they improve existing business practices and transform to meet the vision by combining strategic investments in equipment and infrastructure and by driving operational improvements into delivering the core logistics capabilities.

Lockheed Martin capital investments will enable improvements to existing state-owned facilities, as well as toward equipment costs that will increase performance and longevity of the operations.

Through incorporating operational excellence lean initiatives, planned improvements for efficiency and effectiveness will be made and measured for mission success. Change requires leaning forward; the SOF CLSS is aligning measurable change through focused improvements to provide more mission for the money.

The new SOFSA contract still recognizes the following core capability areas:

- Aviation repair, modification and systems integration
- Integrated warehousing and supply services
- Small arms modification, repair, support and training
- Communication equipment and electronics repair
- Ground systems repair, modification and support

- Manufacturing and production support
- Logistics support teams
- Life cycle sustainment management integration
- Logistics automation integration services

In FY10, SOFSA processed 2,801 contract actions resulting in more than \$357 million in task order obligations. For the ninth consecutive year, the amount of

SOF-funded efforts outpaced the number of non-SOF-funded programs, accounting for approximately 91 percent of the FY10 total obligated funds. In terms of obligated dollars, the four largest core capability areas used by SOFSA customers were logistics support teams (30 percent, \$104 million); manufacturing and production (21 percent, \$75 million); aviation modification and integration (21 percent, \$73 million); and warehousing and supply (13 percent, \$45 million).

Manpower changes and additions to the SOFSA staff are planned to improve the appropriate government oversight of the complex and growing SOFSA workload. These improvements are designed to ensure PEO-SOFSA remains as the center of excellence for SOF logistical support and to provide a capability to rapidly meet SOF CLS requirements when the service depots or support processes lack the capacity or responsiveness required for its mission taskings and readiness standards.

JOINT ACQUISITION TASK FORCE AGILE DAGGER

In April 2010, the USSOCOM acquisition executive established Joint Acquisition Task Force Agile Dagger (JATF-AD) to address technology gaps and known requirements that did not meet the critical mission needs statement threshold. JATF-AD efforts are managed under four project categories:

1. Mobile technology and repair complex (MTRC)
2. Special applications for contingencies (SAFC)
3. Unmanned aerial vehicle (UAV) flight demonstrations (Mavericks)
4. Non-lethal weapons

MOBILE TECHNOLOGY AND REPAIR COMPLEX

The MTRC effort develops capabilities to rapidly respond to battlefield needs in support of deployed forces. A highly skilled team of engineers and technicians use a variety of

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5965-01-572-7829	Single COMM Coyote Brown, 1 Radio PTT
5965-01-572-7946	Dual COMM Olive Drab (O.D.) Green, 2 Radio PTT's
5965-01-572-7797	Dual COMM Coyote Brown, 2 Radio PTT's
5965-01-572-7803	Boom Mic (spare)

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tools and parts to provide a rapid repair and refurbishment capability at the point of need.

SPECIAL APPLICATIONS FOR CONTINGENCIES

The SAFC effort rapidly develops and deploys an air- and ground-based collection capability using a variety of sensor and UAV systems.

UNMANNED AERIAL VEHICLE FLIGHT DEMONSTRATIONS (MAVERICKS)

Precision strike low yield, limited collateral damage, miniature UAV system.

The Mavericks effort provides the engineering and integration capability to modify customer-provided payloads to support developmental data gathering and evaluations for Maverick rotary wing platforms.

JATF-AD provides the airframe integration support required to mount, power and control camera, radar, weapons, radio and sensor components into manned and unmanned platforms.

NON-LETHAL WEAPONS

This effort is exploring options for development of a unique non-lethal capability.

DIRECTORATE OF SCIENCE AND TECHNOLOGY

William Shepherd leads SORDAC's Directorate of Science and Technology (SORDAC-ST) and serves as the senior science advisor who reports directly to the USSOCOM commander on technology matters. The science and technology (S&T) mission is to create an effective S&T enterprise that develops the technologies and new capabilities needed by the SOF operator.

S&T PRIORITIES

- **Exploitation**—focuses on rapidly inserting new technologies and capabilities into the battlefield. Exploitation takes hardware and software items and adapts, modifies, integrates and assesses their ability to rapidly meet SOF operational needs. Acquisition programs transition equipment and capabilities from successful exploitation projects, and SORDAC provides them to the warfighter. Exploitation is making S&T and SORDAC more agile and responsive.
- **Comprehensive Technology Assessments**—assesses SOF's critical capability and technology needs and develops strategies to meet them. USSOCOM, as a combatant command, develops an annual S&T integrated priority list that outlines its broader capability needs to the DoD research and engineering community. Technology roadmaps are developed, coordinated and integrated with each USSOCOM PEO to improve the ability to select, manage and transition projects funded by core research, small business innovation research (SBIR) and international project agreements. These technology roadmaps guide USSOCOM resourcing to meet

multiple SOF requirements, critical gaps and needs while increasing the potential for technology transitions.

- **Whole of Government Approach**—Many U.S. government organizations conduct research and development (R&D) activities that often overlap SOF interests. SORDAC-ST employs a whole-of-government approach to improve coordination and collaboration among various research organizations to meet USSOCOM's technology challenges.

S&T ORGANIZATION—SUPPORTING THE SOF OPERATOR

SORDAC-ST recently reorganized the directorate into commodity-based offices to provide better linkage between S&T support and SOF material acquisition efforts. Five commodity areas now facilitate transition paths between S&T and acquisition programs for emerging capabilities: soldier systems, power and energy, mobility and materials, radio frequency and antennas, and demonstrations, experimentation and international programs. This new organizational structure will provide increased levels of S&T engineering expertise to respond to high priority, unforeseen, and/or time sensitive requirements.

SORDAC-ST is coordinating with USSOCOM PEOs and component and theater SOF operators to develop advanced digital night vision goggles; mobile force protection systems for remotely-deployed SOF in austere environments; low profile antennas; combat identification systems and related technologies; shock mitigating equipment and other improved capabilities for SOF mobility platforms; novel materials to improve protection and per-

formance; non-lethal weapons; mobile systems that detect, ID, locate and defeat threats; improved precision targeting and strike capabilities; advanced biometrics and forensics equipment; mobile distributed architectures; and efforts to support tagging, tracking and locating.

SMALL BUSINESS INNOVATION RESEARCH

SORDAC-ST manages USSOCOM's SBIR program. The SBIR program stimulates technology innovation in small businesses, awarding contracts to discover, develop and rapidly insert new capabilities to solve SOF needs. SBIR projects support the full spectrum of SORDAC-ST's commodity areas. In FY10, SORDAC-ST awarded 28 SBIR efforts and plans to award 30 SBIR efforts in FY11.

DEMONSTRATION AND EXPERIMENTATION

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. SORDAC-ST is an active participant in the DoD's joint capability technology demonstration program and also conducts independent advanced technology demonstrations.

SORDAC-ST, in partnership with USSOCOM J9, continues to sponsor capability and mission-based experimentation to focus on industry's emerging technologies and capabilities to support SOF. Experimentation creates synergy among industry

partners and connects SOF operators to developers during concept assessments.

INTERNATIONAL PARTNERSHIPS

SORDAC-ST's International Program Office oversees the special forces equipment capability memorandum of understanding with special forces from the United Kingdom, Australia and Canada. USSOCOM's international efforts focus on more mature technologies that can become rapid capability insertions, leveraging partner nation R&D capacity through mutual collaboration.

CAPABILITY TRANSITION

One of SORDAC's top priorities is to accelerate the force. SORDAC-ST is working closely with subject matter experts, resource sponsors, SOF matter experts, resource sponsors, SOF operators, requirements validators, SORDAC PEOs and SORDAC Joint Acquisition Task Forces to provide a more rapid and successful transition of technologies into acquisition programs of record. Technology is proving a useful tool to increase SOF engagement with local populations in remote areas.

USSOCOM's mobile smart power initia-

tive (MSPI) began as a SORDAC-ST exploitation effort. MSPI is a pilot project in theater, assessing the utility of alternative power generation technologies to increase energy efficiency and reduce reliance on fossil fuels at remote SOF forward operating base locations in Afghanistan. USSOCOM continues to assess the system's performance, safety, reliability, maintainability and availability. Under the USSOCOM commander's guidance, SORDAC-ST continues to pursue concepts and technologies that energize a think ahead, push forward approach to supporting our deployed forces.

DIRECTORATE OF PROCUREMENT

U.S. Air Force Colonel Kurt Bergo leads the SORDAC Directorate of Procurement (SORDAC-K). The SORDAC-K mission is to rapidly transform acquisition strategies into superior technologies, equipment and services for SOF worldwide. To meet this challenging mission, SORDAC-K's vision is to be DoD's finest contracting team and provide rapid, focused and innovative support to SOF.

SORDAC-K fulfills its mission through 20 contracting offices located throughout the continental United States. Each office is geographically situated to provide support to a particular headquarters USSOCOM PEO, HQ directorate, service SOF component or unit. The largest procurement office, located at HQ USSOCOM in Tampa, Fla., directly supports the USSOCOM acquisition executive, SORDAC and other HQ USSOCOM joint staff directorates and centers. SORDAC-K awards command-wide, large-dollar special operations equipment and performance-based service contracts. Additionally, SORDAC-K

manages contingency contracting operations in support of overseas contingency operations (OCO). In 2010, SORDAC-K awarded a number of key contracts, including special operations forces support activity; contractor logistics support; global battlestaff and program support; and the aircraft occupant ballistic protection system. USSOCOM has a good track record of meeting or exceeding the command's competition goals—in FY10, the command exceeded the 31 percent goal by competing 42.4 percent of total dollars obligated.

SORDAC-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, USSOCOM can approve contract awards in just a few days or less, if needed. This streamlined process can be attributed to several factors. First, USSOCOM has been delegated its own

procurement authority. Second, USSOCOM's acquisition approval authorities are resident at the same location as the program and contracting teams at HQ USSOCOM. Finally, 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 combine to effectively minimize the organizational distance between the contracting officer and the approving official, which results in expedited approvals.

By using innovative techniques, minimizing organizational friction and streamlining procurement processes, the Directorate of Procurement is able to execute rapid acquisitions crucial to the success of our SOF warriors participating in OCO. Each day, on average, SORDAC-K awards 40 contracting actions worth more than \$10 million.

ACQUISITION COMPTROLLER DIRECTORATE

Margaret Iverson leads the SORDAC Acquisition Comptroller Directorate (SORDAC-AC), which was established in October 2010. SORDAC-AC provides financial support, analysis and guidance to all SORDAC PEOs, directorates and component commands. Additionally, the SORDAC comptroller is the principal advisor to the acquisition executive on all financial matters.

SORDAC-AC is a flexible, surge-capable organization dedicated to supporting the procurement, delivery and sustainment of SOF-peculiar equipment from cradle to grave. It prepares all acquisition budget submissions, analyzes financial trends, and recommends corrective actions to the PEOs and directorates. The comptroller directorate personnel also consolidate, collect, present and

report on the financial health of the organization during monthly execution reviews. In addition to these duties, SORDAC-AC oversees development, integration and presentation of briefings to congressional staffers as required, and they review all congressional requests for information to ensure all financial aspects and programmatic impacts are considered.

DIRECTORATE OF RESOURCES AND ANALYSIS

Theodore W. Koufas leads the SORDAC Directorate of Resources and Analysis (SORDAC-RA). The SORDAC-RA mission is to improve the ability of the acquisition executive, PEOs, directors and program managers to modernize and sustain special operations forces to defend the United States and its interests. The directorate is composed of the following:

- **Three Divisions:**
 - Acquisition policy
 - Technology and industry liaison office and office of small business programs
 - Director's action group
- **Four Staff Elements:**
 - Personnel/manpower support
 - Security support
 - System safety engineer
 - Facilities support

The three divisions are responsible for acquisition policy, acquisition support and rapid acquisition support; industry/small business interface; and center tasking and development of strategic planning initiatives.

The four staff elements provide critical, specialized support to the directorate and the center, including workforce development; information security and operations security oversight; safety policies and guidance support; and center facilities maintenance and modification activities oversight.

TECHNOLOGY AND INDUSTRY LIAISON OFFICE/OFFICE OF SMALL BUSINESS PROGRAMS

Christopher Harrington leads the Technology and Industry Liaison Office (TILO) for SORDAC. USSOCOM established TILO to assist industry representatives, USSOCOM senior leaders and the command with communications, collaboration and connections that facilitate business opportunities and a better understanding of the command's acquisition interests.

Specifically, TILO is the primary point of contact for submission of white papers on areas of interest that are relevant to

USSOCOM, and then connecting 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, USSOCOM is committed to ensuring that industry has the information necessary to determine which opportunities best suit their business, when these opportunities are available, and where to find more information.

The TILO publishes USSOCOM'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 it assists with the possible application of those ideas and capabilities to solutions for warfighters.

On the SORDAC website (www.socom.mil/sordac), TILO also receives and coordinates unsolicited proposals (in accordance with Federal Acquisition Regulation 15.6) and cooperative research and development agreements (CRADAs) for the command. CRADAs provide a collaborative mechanism for USSOCOM to partner with industry on research and development initiatives with mutually desirable results. Through CRADAs, USSOCOM is able to provide direct feedback to industry as they commit funding to develop or mature new technology and demonstrate or provide it to the command for testing. This feedback serves as intellectual capital that companies and researchers can use to guide their future work and to further develop solutions for SOF warfighter needs. In addition, these agreements often serve as a springboard for companies to market their technologies to other services and government agencies and to commercialize their technology in the private sector.

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, PEOs and com-

mand personnel who provide the scientific, technical and engineering assistance to help assess all submitted information. TILO also organizes, maintains and archives the capabilities information for collaboration within USSOCOM.

TILO developed the Business Partner Network—a place for industry to self-register their capabilities under the various command areas of interest. This affords industry the ability to network and form relationships to aid USSOCOM. It also provides valuable market research information for headquarters personnel.

In addition to leading TILO, Harrington serves as director of the Office of Small Business Programs (OSBP) for SORDAC. 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. USSOCOM 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, historically underutilized business zones, and historically black colleges, universities and minority institutions.

USSOCOM did well in supporting small businesses in FY10. The command awarded 28.2 percent of all prime dollars to small businesses, which represented over \$678 million in prime award dollars. The command exceeded its small disadvantaged businesses goal along with its woman-owned small businesses and historically underutilized business zones goals. Overall, FY10 was a successful year for the OSBP. ★

To contact the TILO with questions, you may call Christopher Harrington at 813-826-9475 or email the office at tilo@socom.mil. To reach the OSBP, you may call Harrington or email him at christopher.harrington@socom.mil.