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Air Commando JOURNAL

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ON THE COVER

Training and Education

Collection of photos from AFSOAWC, 58 SOW, and STTS depicting the many aspects of the education and training processes that prepare our Air Commandos to execute our nation's bidding anytime - anyplace!



Parachuting training area of the 336 school. Students learn safety of the equipment and techniques on egressing from an aircraft and landing. (Photo courtesy of 58 SOW)

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FOREWORD

Initial qualification or "pipeline" training (IQT) for aircrews has been a multi-generation debate for Air Commandos. Arguments usually center on three main dichotomies: 1) should aircrew IQT be organic to AFSOC or should the task belong to Air Education and Training Command (AETC), 2) should AFSOC isolate aircraft as dedicated training platforms or should operational and training units share a single set of mission aircraft, and 3) how much training should be conducted in-flight versus in the simulator? Each of these choices has their pros and cons depending on the perspectives of the units, staffs, and headquarters. The solutions usually come down to

human and equipment resourcing, which there is rarely enough of to allow AFSOC to fully separate training from operations.

Like many, I spent much of my "youth" opposed to AETC owning the AFSOC formal training pipeline because I thought AFSOC knew best how to train its own. And, I also wanted to stay operational. Later, I was assigned to the 550th SOS and quickly understood why formal aircrew training was conducted by AETC, separated from the commitments of operations. That perspective was strengthened when I became the 1st SOG deputy commander and experienced the challenges of supporting initial training while also maintaining the group's operational focus. Training suffered whenever operations required the SOG to deploy those highly qualified instructors and scarce mission aircraft. The AFSOC and AETC teams have always done their best to share available resources, but when the nation calls, operations are the priority. That experience reinforced my belief that it is usually better to let the training professionals focus on the pipeline while operational units concentrate on operations; rarely should the two be mixed.



Which brings us to the last point—how much training should be conducted in-flight versus simulator? This is a real challenge and as you will see in the article from the 58th SOW, the Air Commandos of AETC seem to have found the right balance point. This issue of the Air Commando Journal offers a collection of great features describing the diverse array of innovative, challenging, and impressive training and education programs that are turning Airmen into Air Commandos—mission focused, adaptive, resilient, and relevant for an ever-changing world. The Air Force Special Operations Air Warfare Center and the USAF Special Operations School (USAFSOS) are driving the future of AFSOC education and training through programs like Air Commando Development, an effort to prepare special operations Airmen for leadership roles in a very uncertain world. The Joint Special Operations University, which got its start at Hurlburt Field as an outgrowth of USAFSOS, is shaping a new era of joint SOF education. It is an exciting time for Air Commando training and education and the Journal is pleased it can help tell that story.



David Mobley, Col, USAF (Ret) Former Deputy Commander, 1st Special Operations Group



CHINDIT CHATTER

very Airman in the Air Force begins their career path encountering the educators and trainers that set them on the road to success. That probably seems an obvious statement to make. Yet, I believe that some of the folks most responsible for this country's exceptional Air Force are often taken for granted.

As in all things, one's personal experience forms the basis for each individual's opinion and perspective. After completing pilot training, I was assigned as an instructor pilot in T-37s, training foreign students (mostly Iranians). Later I was nabbed for faculty duty at Air Command and Staff



College and again at National Defense University. In 1993, when the Air Force decided to stand up more centralized training by turning Air Training Command into Air Education and Training Command (AETC), I was assigned as the first Director of SOF/Rescue training. It was while I was there that I saw first-hand the dichotomy that Dave Mobley describes in the foreword to this issue. The demand for access to precious few unique and capable assets is extremely high.

Perhaps it was my personal experience that led me to believe that we need to educate our readership on the exceptional people who produce Airmen who are leading the way in a seemingly never-ending conflict. But there is also a huge amount of critical training and education that is outside the normal aircrew pipeline.

This edition of the ACJ explores a wide range from the classroom, the ever critical and high demand Special Tactics training environment, use of simulation, the evolution of the highly prestigious Joint Special Operations University, and the innovative inclusion of USAF survival, escape, resistance, and evasion training opportunities under the 58th SOW.

Our objective is to give the reader a better appreciation of the oft times underappreciated trainers and educators that produce Air Commandos who are capable of going beyond the norm and taking on missions and tasks that others cannot. We know that we have not covered all aspects and if we have missed a particular piece that you feel needs highlighting, we always welcome that feedback and will work to fix that oversight in the future.

One aspect that we don't discuss is the ongoing continuation training that keeps the force honed to a razor's edge of readiness. This is a requirement across all the specialties that make up the AFSOC team. Training like we fight is our mantra and is not done without risk as was unfortunately highlighted with the recent loss of the U-28A at Cannon. We all feel the pain of that loss and our hearts go out to the families and teammates of Capt. Andrew Becker, Capt. Kenneth Dalga and 1st Lt Frederick Dellecker of the 318th Special Operations Squadron. RIP.

Any Time—Any Place



Dennis Barnett, Col, USAF (Ret) ACA President and Editor In Chief

OTWASH

Air Commando Journal in the Library of Congress



I am interested in obtaining an ongoing run of your publication Air Commando Journal for the collections of the Library of Congress. Could you send me information on whom to contact and pricing, so I may send that information on to our acquisitions department?

> Thank you. Will Elsbury Military History Specialist Humanities and Social Sciences Division The Library of Congress 101 Independence Ave, SE Washington, DC 20540

Mr. Elsbury,

Good morning and thank you for reaching out to the Air Commando Association. We are honored to add the Library of Congress to the Air Commando Journal distribution list. Subscriptions used for educational purposes are available at no charge, up to five copies per issue.

Thank you again for reaching out to us, requests like these are very rewarding to our publication's editors and staff as their vision for the Air Commando Journal has always been to educate and preserve history.

We can be reached at 850-581-0099 should you have any questions.

> Warm Regards, Shannon Pressley **Executive Assistant**

2012 Fall Issues of Journal

Thank you for sending some extra copies of the 2012 Fall issue of the Air Commando Journal with Harry Bright's terrific article about Col Joe Jackson's daring rescue at a Special Forces camp in Vietnam that resulted in Jackson being awarded the Congressional Medal of Honor. The Journal material will go to a very good use. I am working with an Auburn University

Arts and Humanities program termed "Dialogues On The Experience Of War," a nationwide program funded through a grant from the National Endowment for the Humanities. Auburn is one of seventeen institutions nationwide to participate, and our sessions with military veterans in the Wetumpka and Montgomery, Alabama, area are a part of a pilot program that hopes to reap real benefits in assisting military veterans who strive to deal with the effects of PTSD. The heroic story of Col Jackson's Mother's Day, 1968, rescue of American military at Kham Duc outpost will be shared with those participants in our program in an effort to further stimulate discussion of their own experiences. Again, thank you for sharing the additional copies which we anticipate will be of great benefit to our program.

> Respectfully yours, Jim Lawrence, Lt Col, USAF (Ret) ACA Life Member Cecil, AL

Book Review

I'm sure you are getting overloaded with queries of this type, so that makes me still one of the bunch. Re: The book review of Wings of Denial in the Air Commando Journal, Where is this book available and the probable cost? Thank you in advance.

> Charlie B-26 Harper ACA Life Member

Charlie,

Wings of Denial: The Alabama Air National Guard's Covert Role at the Bay of Pigs is available on www.amazon. com or www.abebooks.com, and other websites that sell books online. The average price is between \$15 and \$20. We hope this information is helpful.

Respectfully, Jeanette Moore Media Coordinator

Thank You!

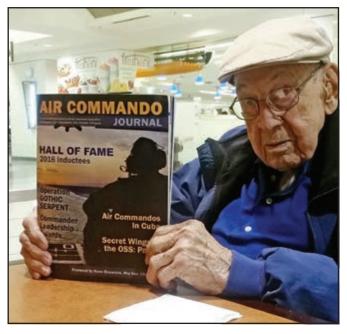
Dear ACA,

I [contacted] you a few weeks ago, and discussed with you that CMSgt (Ret) William Turner was going to be the guest speaker for the Eglin AFB Chief's Recognition Ceremony.

I was assigned to Hurlburt for most of my career and have known Bill Turner for many years. When asked if there was an association we could help monetarily was a token of appreciation for his services, he stated the ACA. As such, please accept the enclosed check for \$200. Thanks for what your organization is doing to help AFSOC's warriors.

> CMSgt Sean Medsker 33d Operations Group Superintendent

Doolittle Raider Supports ACA



Lt Col Richard "Dick" Cole showing his support for the Air Commando Association. An original Air Commando, Hump Pilot, and co-pilot to then Lt Col James "Jimmy" Doolittle on the famous Tokyo Raid in 1942. He'll turn 102 years old on Sept 7, 2017.

Wes Fields ACA Life Member Fort Walton Beach, FL

Air Commando Foundation

Dear Sirs,

I would like to inform you that I received the check issued by Air Commando Foundation yesterday. My family and I would like to take this opportunity to express our deepest gratitude for your financial assistance, especially in our time of mourning. Your organization's generosity and support have provided us some solace knowing that we would not be financially burdened by repaying back the money we owed. It's times like these that I'm glad I'm a part of the greatest organization in the world where taking care of each other is a top priority. Again sir, thank you and please extend our appreciation to the Air Commandos for the aide you and your organization have provided me and my family. If there's anything I can do to repay you back, please let me know. Have a wonderful Air Force day.

Sincerely, Ray Dear Col Barnett,

I want to thank you and the Air Commando Foundation for your generous gift to the TSgt at Det 2, 25th Intelligence Squadron, RAF Mildenhall. Your contribution enabled the TSgt and his family to travel back to the US and support their extended family during a time of significant loss.

With Respect, Matt Smith Commander, 352d SOW

Dennis Barnett,

Wayne Norrad let me know that Air Commando Foundation (ACF) has rolled in again and is going to support two weeks of the costs for one of our Air Commandos to remain at EXOS. I can't thank you and the ACF enough for the strong support to ensure he gets the max care before he leaves the Air Force.

ACF defines "wingman" and we know you have our backs in times of need. Please pass my personal thanks to all the members of the ACA!

Hoo-yah Team, Col M. Martin, Commander 24 SOW First There...That Others May Live

Submissions can be e-mailed to info@aircommando.org or mailed to Hot Wash c/o Air Commando Association, P.O. Box 7, Mary Esther, FL 32569. ACA reserves the right to eliminate those that are not deemed appropriate. Thank you in advance for your interest in the *Air Commando Journal*.



The History of the **Joint Special Operations** University Figure 1. The Alison Building, Hurlburt Field, FL.

By Brian A. Maher, Ed.D.

The concept of a joint education institution for special operators was not new with the creation of the Joint Special Operations University (JSOU). When the US Special Operations Command (USSOCOM) was established in 1987, its first commander, GEN James Lindsey, realized the importance of a dedicated joint schoolhouse. With the USAF Special Operations School's (USAFSOS) almost exclusive focus on Special Operations Forces (SOF) education, he quickly utilized their existing capability to fill the role of the joint SOF school. Many joint courses evolved over the years at USAFSOS and its student population maintained a significant joint balance. In 1995, GEN Downing launched the Joint Special Operations Forces Institute (JSOFI) at Ft Bragg, NC and designated the US Army John F. Kennedy Center and School commander as the director. Unfortunately, JSOFI's focus extended beyond joint education and included both doctrine development and joint training oversight. With only

two dozen assigned staff, its effect on education was minimal, and some even considered it disruptive or disconnected from the existing educational activities at the component schoolhouses. Although limited in its effectiveness, the JSOFI concept continued the prevailing opinion of USSOCOM leaders that joint SOF education needed improving. The staff functions of JSOFI were transferred to HQ USSOCOM in 1999 and currently reside in the J7 joint training directorate.

When GEN Peter Schoomaker became the commander of USSOCOM in 1997, he established a Future Concept Working Group. This dynamic team initiated several important projects, to include developing the SOF2020 Vision that continued to define a need for a SOFspecific joint education solution. The idea of a Special Operations Forces University (SOFU) emerged from a series of discussions and workshops. Participants from the headquarters, the components, and the SOF schoolhouses worked together to shape the concept, analyze

a variety of alternatives, and develop what would eventually become JSOU. GEN Schoomaker remained personally engaged in JSOU's development. Of primary importance was to give the new institution a single focused mission and a dedicated Flag Officer leader. The initial concept called for a small "startup" effort that, although an independent organization, would take advantage of already established SOF institutions. The natural outlet for this was to place SOFU at Hurlburt Field, integrated with the USAFSOS, to continue their already established trend of joint education. These early decisions set the conditions for JSOU to become a reality.

The First Year - Getting **Established**

The activation ceremony for the university was held at Hurlburt Field on 29 Sep 2000, and was officiated by GEN Schoomaker. BG Kenneth Bergquist, US Army, was appointed as the first president of JSOU and his top priority was to

establish a close relationship between JSOU and USAFSOS, as envisioned in the original SOFU concept. While a joint manning document was being developed, JSOU relied upon USAFSOS for manning, processes, and curricula. The first organizational structure called for administrative support from USAFSOS while JSOU provided joint faculty in return. The Joint Operations Division and the newly created Asymmetric Warfare Division were led and partially staffed by JSOU personnel (see Figure 2), representing the true essence of the concept with day-to-day functions and course execution controlled by the USAFSOS Commandant. This structure worked well since the early curriculum was largely that already existing at USAFSOS, but with significantly added jointness.

Commander, prevented JSOU's early demise. It was only the support by senior leadership at USSOCOM that kept JSOU development on track to become the institution we know today!

Early Initiatives

JSOU, along with the rest of the US, quickly adapted to the terrorist events of 11 Sep 2001. SOF units preparing for war requested educational assistance with special operations planning, command & control, unconventional warfare, and regional orientations. This latter area was and continues to be an area that USAFSOS has significant expertise. Reaching out to units during pre-deployment became a priority for the combined efforts of JSOU and USAFSOS. Mobile education teams of 2-5 faculty experts became a mainstay of the curriculum. JSOU also

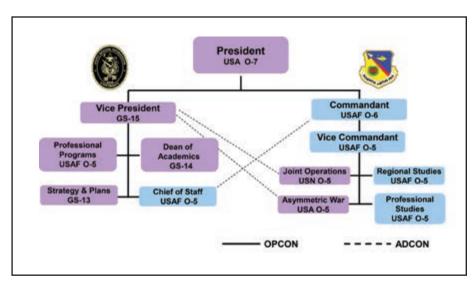


Figure 2. JSOU President's Briefing to the SOF Education Conference (July 2002)

While local activities in the now shared Alison Building were going as planned, implementation of the long range processes and understandings with HQ USSOCOM were just beginning. The miniscule budget JSOU inherited from the JSOFI was insufficient for its duties and responsibilities. Developing a Program Objective Memorandum and validating new educational requirements envisioned in the JSOU Charter consumed significant energy from the fledging JSOU staff. In fact, headquarters reticence was the norm and only the personal intervention of Gen Charles Holland, the new USSOCOM

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experimented with technology solutions, conducting several courses via video teleconferencing (VTC) and investing in a dedicated VTC-based classroom at the US Army John F. Kennedy Special Warfare Center and School – going so far as to pay for the equipment and on-site facilitator, for those special operators at Ft Bragg who could not attend JSOU and USAFSOS courses in residence. One unit commander emphatically stated that his unit would not have been able to receive such needed education without the use of VTC due to the constraints of available time.

With its primary mission to fill joint special operations education requirements not addressed in Service programs, several initiatives were launched in JSOU's early years that continue today. During a visit to a Service professional military education (PME) institution, Gen Holland was shocked to learn from the SOF students that very little of their formal program was of direct value to their needs. He tasked JSOU to develop a solution, resulting in increased direct support and enhancing the SOF Education Council that links SOF "Chairs," the special operations experts assigned to most PME Institutions, with the broader USSOCOM education community. By 2004, JSOU was providing over 350 contact hours of joint SOF education to the first year program at the US Army Command & General Staff College, 2 special operations electives to the Army's Advanced Studies program, and directing the masters theses of 4 - 8 SOF students each year. While not to the same extent as for the Army, JSOU was also actively supporting the Naval War College, the Joint Command & Staff College, and the Air Command & Staff College.

JSOU Press was also established to provide special operations-oriented research, analysis, and publications, and expand the body of SOF knowledge and awareness along lines similar to the Services'. Today this is a formal JSOU program of peer-reviewed monographs, directed studies. symposia, occasional papers, plus numerous articles published in professional journals such as the Joint Forces Quarterly, Royal Air Force Air Power Review, Special Operations Journal, and National Defense University's PRISM.

Decision to Move

In 2007, JSOU conducted a SOF Education Study and developed the JSOU Future Concept which recognized the expanding role of education to the SOF community. The study showed numerous joint educational needs not being fulfilled, placed new emphasis on Non-Commissioned Officer (NCO) education, increased civilian academic education opportunities, and validated that JSOU should be co-located with HQ USSOCOM. The potential move

to Tampa was settled when GEN Doug Brown approved a military construction (MILCON) project at MacDill AFB to create a facility entirely dedicated to joint SOF education. GEN Brown also converted the president from a military billet to a government civilian in the Senior Executive Service. One of the first decisions made by the new civilian president was to develop the timetable and plan for JSOU to re-locate to Tampa, Florida, a decision that received the full backing of ADM Eric Olson early in his tenure as the USSOCOM Commander.

Another high priority goal determined by the SOF Education Study was an increased commitment to the education of SOF NCOs. Spearheading this effort was CSM Tommy Smith, the USSOCOM Command Senior Enlisted Leader, and his vision of a Joint SOF Senior Enlisted Academy (JSOFSEA) as the first joint senior enlisted PME course in the Department of Defense (DOD). Unlike formal PME programs designated for officers that included substantial joint education, enlisted PME focused almost exclusively on Service requirements. In fact, there was no mechanism available to regulate or synchronize the various senior NCO academies' learning expectations. This resulted in a wide variance in program duration and emphasis across the different Services. JSOU lost no time in hosting a curriculum development workshop and including all USSOCOM components. ADM Olson approved the plan and signed the JSOFSEA letter of intent in Mar 2008. This was subsequently recognized by all Services as

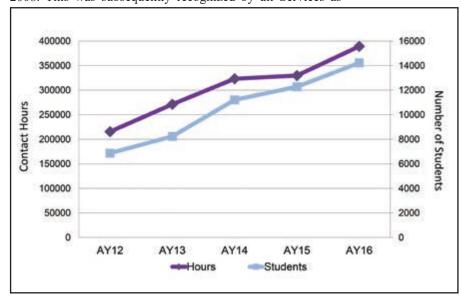


Figure 3. Student Growth (Academic Years [AY] 2012 through 2016)

an equivalent to their traditional programs. With the success of the initial course and the growing demand for joint NCO PME, JSOU created a four-phase Career Education Program (CEP) for SOF enlisted leaders, starting at the E-6 grade level and continuing through those E-9s who serve in nominative senior enlisted advisor billets under General/Flag officers. This one-of-a-kind joint PME program is an excellent example of life-long learning providing the right education opportunities at the right time in an NCO's career. It is receiving widespread acclaim throughout the SOF community.

International Engagement

Commensurate with the command's direction to "Expand the Global SOF Network" and increase support to international partners, JSOU commenced an academic engagement program to directly support each Theater Special Operations Command's (TSOC) Theater Security Cooperation Plan. Early activities focused on a bilateral relationship with NATO Allied Command Operations and the NATO School. In the course of developing NATO special operations curriculum, JSOU faculty influenced burgeoning NATO special operations doctrine and provided the foundations for SOF education in NATO. During those early years, on behalf of SOCEUR's theater engagement program, JSOU was actively engaged with helping Germany, Poland, the UK, Norway, and Sweden to shape and form joint special operations organizations that would address those nations' ambitions. Many of those relationships continue today. By 2008 JSOU was forging a strong academic relationship with what would become the NATO SOF Headquarters (NSHQ) training & education directorate (now the NATO Special Operations School) at Chièvres Air Base, Belgium. To solidify its credentials in the NATO international community, JSOU was formally admitted as a NATO Partnership Training and Education Centre (PTEC) in 2015 and received formal NATO validation of our international courses by Allied Command Transformation a year later.

JSOU's successful Special Combatting Operations Terrorism series of courses has been a recognized invitational element of DOD's Regional Defense Counterterrorism Fellowship Program (CTFP), providing both an in-residence course format and a more flexible mobile education team option. The basis of JSOU's CTFP program included tailoring existing curriculum for an international audience and developing a new four course series, aimed at the mid-grade staff thru General Officer/ Executive levels, to complete a careerlong array of combatting terrorism focused courses. Of note was JSOU's recent leadership in several key programs, including the Senior Seminars for Resistance and Resilience for SOCEUR, a series of strategic seminars with Colombia's Centro Regional de Estudios Estratégicos en Seguridad (or CREES),

the Fuerzas Comando Senior Officers Seminar in support of SOCSOUTH, and the SOCNORTH Regional Symposium on Combatting Transnational Organized Crime.

The Move to Tampa

In the summer 2010, JSOU relocated from Hurlburt Field to co-locate with USSOCOM in Tampa, taking up residence in an interim leased facility just outside the main gate of MacDill AFB. In Apr 2011, ADM Olson officially dedicated the JSOU Pinewood Campus that was to serve thousands of

students through 2016. During this period, JSOU experienced phenomenal growth in both the number of courses offered and in the number of students attending, due primarily to the increased interaction with the headquarters.

By 2014 JSOU surpassed the 10,000 student mark for the first time, which was the fifth consecutive year of increasing student attendance in its academic programs and courses, confirming the value of the move to Tampa. This growth trend has continued (see figure 3) through the present day with increases of approximately 20% each year over the entire 5-year period.

The Present

In 2014 JSOU realigned into a true university structure, while preserving its original continuing education focus aimed at supporting the joint academic needs of USSOCOM headquarters, the SOF components, and the TSOCs. This has proven to be a sound decision and a significant first step for JSOU's future recognition as an accredited postgraduate institution. JSOU courses are becoming increasingly more focused on higher levels of learning while academic processes are achieving the academic standards found in major civilian universities. JSOU is currently pursuing legislative and accreditation actions that will meet the USSOCOM Commander's intent for enhanced joint education, and has already developed a joint SOF Graduate Certificate, "Foundations of Special Operations," composed of four master's level courses. At this time two additional certificates are under development: a four-course Advanced Special Operations Intelligence Certificate, and a three-course Advanced SOF Chaplaincy Certificate. Both will award postgraduate credits.

A major initiative in 2015 was the establishment of the "USSOCOM Design Thinking" program. This was tasked by the USSOCOM Commander in January 2015, and the design thinking faculty developed and validated a a three-course curriculum: Introduction to USSOCOM Design Thinking, Design Thinking for Practitioners, and Executive Overview of USSOCOM Design Thinking. Course enrollment rose steadily throughout the year with several USSOCOM Directors, components, and TSOCs requesting mobile education team versions for their staffs and leadership. Taking design thinking education beyond the classroom, the design thinking faculty has facilitated transformational applications of USSOCOM Design Thinking across the SOF enterprise. The USSOCOM Chief of Staff went so far as to say,

"USSOCOM has embraced design thinking and it has improved the way we deal with complex and illdefined challenges. The more we learn to use design thinking and become comfortable with its collaborative approach, the more it will improve our critical thinking, creativity, and innovation, thereby helping the command overcome many of the bureaucratic obstacles that every large organization faces."

The design-thinking program has been hugely successful and demand for the courses and facilitators has steadily increased as senior leaders recognize the value of the process.

JSOU has continued to place priority on NCO education; continuing education for the USSOCOM headquarters, components, and the TSOCs; increasing support for TSOCs' engagement initiatives; supporting the PME institutions; and continuing to develop SOF-specific undergraduate and postgraduate courses. JSOU continues to build strong partnerships with civilian universities that will apply JSOU course credits toward a variety of degree programs.



Figure 4. New JSOU Faculty on MacDill AFB, FL.

The Future

As we enter 2017, JSOU's final transformational steps are underway. JSOU has relocated to a new purpose-built academic facility. (see Figure 4) This postures JSOU to begin a new era of academic excellence in a building designed for 21st century learning. The JSOU faculty is adapting to the capabilities inherent in this modern facility and is taking advantage of its potential for improved student learning, while increasing innovative educational opportunities across the SOF enterprise. Beyond the new building, JSOU's initiatives include establishing a Countering Weapons of Mass Destruction curricula and increasing cyber-related topics into existing courses, while achieving postgraduate accreditation. All considered, these milestones will complete JSOU's transformation and inaugurate a new era in SOF education, wherein JSOU fully supports the emerging joint academic and intellectual needs of our community and partners.



About the Author: Dr Maher is the current President of the Joint Special Operations University and has been associated with JSOU since its inception. He is a life-long member of the Air Commando Association, and served in numerous joint SOF, AFSOC and education assignments. He is a command pilot with over 5,000 hours and retired as an USAF 0-6 in June 2000, after serving as the 15th Commandant of the USAF Special Operations School.



Air Commando Association

Because of your support to the Special Operations Warrior Foundation, Catherine will fufill her dream of a college education.



Thank you so much for everything you guys do for us! Because of you people like us get to attend college and Succeed in like and that's all I could dream of Sothank you somuch, we deeply appreciate everything! Vcdtherine Henry.





The Special Operations Warrior Foundation ensures full college educations to the surviving children of Army, Navy, Air Force and Marine Corps special operations personnel who lose their life in the line of duty. The Special Operations Warrior Foundation also provides financial stipends to severely wounded special operators.



Commander's Perspective

By Col Nathan Green

It is a great honor to have this opportunity to showcase the numerous efforts of our Airmen in the Air Force Special Operations Air Warfare Center. Long time members of AFSOC were first introduced to us as the Air Force Special Operations Training Center (AFSOTC). This issue of the Air Commando Journal will focus on our Training and Education (TE) Directorate, but our mission has grown well beyond that important task. This collection of articles will explore who we are, what we do, and most importantly, how we maintain strategic relevance to AFSOC, the Air Force, and ultimately to USSOCOM.

The Air Force Special Operations Air Warfare Center concentrates on three primary mission sets: Irregular Warfare, Combat Development, and Training and Education. Regular readers of ACJ may recall the issue highlighting our Irregular Warfare (IW) Directorate, specifically the Combat Aviation Advisor mission. I'm excited to report that we are once again reorganizing, growing, and further developing our capabilities to assess, train, advise, and assist Partner Nation (PN) forces in SOF Mobility, ISR and Light Strike. There are some very exciting evolutions underway in our Combat Aviation Advisor community in the 6th SOS and 711th SOS. We are growing rapidly and looking for the right people to fill critical advisor billets from both inside and outside the SOF community.

Another key mission set of our Center is the Combat Development (CD) directorate. Here, we test and develop the latest arsenal of AFSOC combat aircraft and capabilities. With over 88 programs and 1,700 test activities, the Center is at the forefront of improving the lethality and effectiveness of every AFSOC aircraft including the upgraded AC-130J gunship. We round out this advancement effort through small business innovation partnerships, virtual reality training development, and new missile datalink capabilities. The small but agile CD directorate is the vehicle through which the Center keeps AFSOC highly relevant in developing tomorrow's warfighting technology.

The Training and Education (TE) directorate is the gateway to SOF for America's Airmen. From the USAF Special Operations School (USAFSOS) to the 19th SOS, and every step in between, we are laser focused on providing the highest quality and best-trained people to the operational units in AFSOC. This year alone, we've trained over 10,000 students, including 314 new Air Commandos. In addition, we've flown 10,000 training flight hours and 20,000 simulator hours to produce 86 combat crews. We've also expanded our enterprise by creating a new AC-130J schoolhouse, inheriting the MC-130H Talon II schoolhouse from Kirtland, and opening up C-146 training at Duke Field. On the partnership building side, we've executed 48 multinational engagements that trained 126 allied SOF units and 1300 joint force students. Last but not least our Language Center created 650 proficient Air Commandos in 14 languages.

The exponential growth in TE directorate has not impacted the overall quality of our product, and that is completely due to the dedication of the men and women in AFSOAWC. In 1997, when then-Lieutenant Green first entered AFSOC, a retired Air Commando named Bernie Frakes was my instructor. He was always willing to go the extra mile to make sure we understood the importance of our training and our mission. That left a lasting impression on me that persists 20 years later, and the best part is that Mr. Frakes is still here teaching students. From an instructor pilot in Vietnam to teaching for AFSOAWC today, Mr. Frakes continues to pour himself into the next generation of Air Commandos. It's this kind of inspiration that will keep future generations of Air Commandos at a world class level.



About the Author: Col Nathan C. Green is the Commander of the Air Force Special Operations Air Warfare Center and is responsible for the training and education of Air Force special operations forces; AFSOC's Irregular Warfare program; and innovation, development, and operational testing in support of AFSOF.



AFSOAWC Training

Readiness starts with training and education. After nearly two decades of continuous worldwide engagement, USSOCOM and AFSOC have acknowledged the need to properly resource and prioritize their training and education programs. Given this new focus, it is absolutely critical that we invest in and take full advantage of this opportunity to transform our training and education programs. Legacy training and education to our Air Commandos. As GEN Joseph Votel, the former USSOCOM Commander said, "Innovative and cuttingedge training and education programs [will] ensure we have combined the right people, capabilities, and great ideas required to win and prevail in an uncertain world."

The Air Force Special Operations Air Warfare Center's (AFSOAWC) Training and Education (TE) Directorate

> is responsible for the management and oversight of 5 squadrons, 27 aircrew training pipelines in 8 different major weapons systems, 7 ground training pipelines, and 18 educational courses delivered in 9 different languages. The TE directorate is structured and functions like an operations group, is responsible for coordinating and executing training and education programs within AFSOC, and has direct links to the

AFSOC staff to help inform planning, programming, and budgeting of AFSOC's training and education programs.

Flying training is conducted by AFSOAWC's 19th, 5th, and 551st Special Operations Squadron at Hurlburt Field and Cannon AFB. These flying training squadrons are responsible for AFSOC aircrew qualification and continuation training on all strike, ISR, and mobility aircraft except for the CV-22 and MC-130J.



education delivery methods will never allow AFSOC to achieve SOCOM's goal of "professionally trained, culturally astute, language-capable, and situationally adaptable forces capable of executing the full range of SOF activities." True transformation means training smarter, keeping the best of the current and leveraging the most promising of future learning standards, in order to deliver relevant and focused 21st century USAFSOS cadre demonstrates foreign weapons capabilities during a Dynamics of International Terrorism course. (Photo by Lori Werth)

& Education Directorate

The units are also responsible for managing and maintaining the majority of AFSOC's stateside simulators.

This Directorate's 371st Special Operations Combat Training Squadron trains AFSOC security forces, intelligence personnel, combat aviation advisors, small unmanned aircraft

system operators, and all personnel requiring field skills. AFSOC's operational education and language courses are also managed by the TE directorate and taught by the USAF Special Operations School at Hurlburt Field.

The TE directorate is a key component of AFSOC's Air Commando Development program, which focuses on providing Air Commandos the appropriate developmental opportunities at the right time throughout their career. Air Commando Indoctrination focuses on introducing new Airmen to AFSOC and teaching aviators the field skills they will need to operate on the ground in hostile and uncertain environments. The end state of Air Commando Development are special operators that can think critically, work seamlessly with others in any environment, and lead courageously.

With an objective eye and renewed focus, the AFSOAWC TE directorate intends to drive the evolution of AFSOC's training

and education enterprise and become the focal point in the command for innovative learning. Doing so not only supports USSOCOM and AFSOC priorities, but also helps realize the vision to transform today's Air Commandos into future special operators: resilient critical thinkers, full spectrum operators, and innovative leaders trained, educated, and equipped with broad special operations backgrounds ready to become tomorrow's SOF senior leaders. In order to do this and to stay focused on task, our mission is to effectively synchronize and execute AFSOC's training and education plans and programs, identify and prioritize resources focused on training transformation, and expertly manage training and education

that is responsive and relevant for operational ground, flying, and simulator instruction.

AFSOAWC is committed to training and educating Air Commandos, ensuring their readiness to execute global special operations today, and transforming the force to



maintain relevance tomorrow. We will institutionalize cutting edge training to synchronize and manage AFSOC's training & education enterprise, optimize human performance, enhance talent management, and continue to standardize training and education programs. We also have initiatives underway to standardize combat aviation advisor training, and identify and exploit innovative delivery methods.

Because people are AFSOC's most important resource, AFSOAWC now has the opportunity to carve a path for the command, drive the evolution of AFSOC's training enterprise, and become the focal point for innovative and powerful learning...creating the future of AFSOC.

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Special Operations School

By Mr Joe Polhamus

Since 1967, the mission of the USAF Special Operations School (USAFSOS) has been to deliver responsive and relevant education, enabling Air Commandos to excel in complex and ambiguous operational environments world-wide. USAFSOS provides operational military education to enable special operators to better perform their unique mission sets. The courses, seminars, and workshops are tailored to each unit's mission and theater of engagement.

Today's USAFSOS is the product of a 50-year evolutionary process. That process began when President John F. Kennedy, facing aggressive, Communist-sponsored subversion and to conducting 120 iterations of 18 different formal courses and 55 mobile education events per year. USAFSOS currently provides Special Operations Forces (SOF) indoctrination, as well as political, military, and cultural studies supporting special operators in each geographic combatant command. The school also provides specialized instruction on irregular warfare principles, building partner nation aviation capacity, aviation foreign internal defense, dynamics of international terrorism, and command, control, and integration of Air Force special operations assets. In FY16, USAFSOS graduated over 5900 students, to include 31 international students.

> One of USAFSOS' unique contributions to Air Commando education and training is its award-winning Language and Culture Center (LCC). The center offers initial and sustaining language courses in Arabic, Dari, French, Indonesian, Polish, Russian, and Spanish to individuals and units. The LCC also provides pre-deployment cultural familiarization and area orientations tailored to specific regions and ethnic/social groups. Recently, the LCC expanded to add a satellite operating location at Duke Field. This adds capacity to better serve the entire joint SOF community in north-west Florida—AFSOC and 7th Special Forces Group.

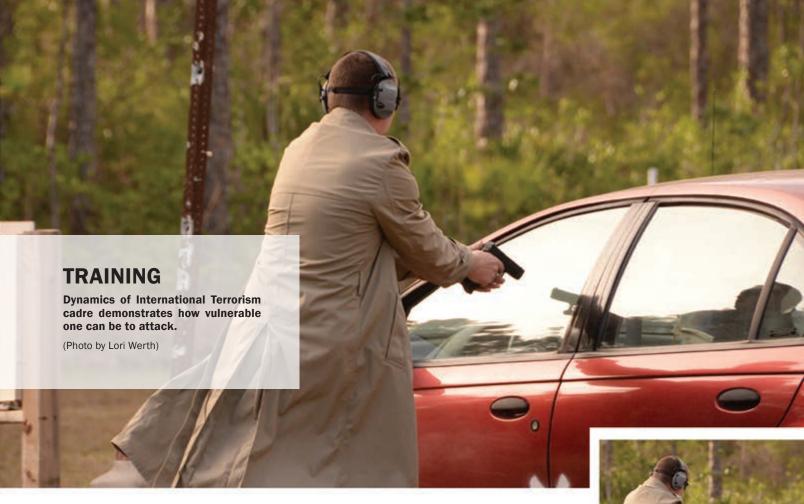
> USAFSOS is the only USAF user of the Military Accessions Vital to National Interests (MAVNI) program, which recruits legal immigrants who are not citizens in

order to gain native language and cultural skills in critically needed languages. The MAVNI program provides successful applicants an expedited naturalization process to gain US citizenship by serving in the US military. MAVNI Airmen serve as language and cultural advisors, and provide a unique SOF resource for education, training, and direct support in deployed environments. The MAVNI Airmen also provide formidable



insurgency around the world, directed the Services to restore the unconventional and guerrilla warfare capabilities and doctrines that had been lost since the end of the Second World War. As a result, the Air Force increased the emphasis given to special air warfare training.

USAFSOS has grown from teaching a few Vietnamoriented theater indoctrination and irregular warfare courses,



support as role-players during "working through an interpreter" training, predeployment cultural training, and classroom instruction.

The courses USAFSOS offers are based upon the USSOCOM Commander's Training and Education Guidance, the regional expertise and cultural education for Special Tactics, and AFSOC's Air Commando Development (ACD) initiative. The addition of the ACD pipeline requires all AFSOC aircrew to attend the Introduction to Special Operations Course, Intercultural Competencies Basic Course, SOF Air Command and Control Course, and a couple USAFSOS electives. Air Commandos may choose their electives from any of the 18 courses; however most choose one of the theater engagement courses.

The ACD initiative is a tremendous opportunity to ensure that Air Commandos are equipped with the knowledge necessary for success in the most complex and ambiguous environments, wherever their talents are needed. To address this exciting new educational requirement USAFSOS will need to expand its throughput by 1,300 students per year. Thus, the faculty and staff will be changing the way curriculum is delivered. Since 1967 the model has been one

and two-week resident instruction delivered by outstanding subject matter experts. But AFSOC is a much larger command than it was even a few years ago and Air Commandos are deploying continuously. It will be impossible to meet the ACD requirements unless USAFSOS adopts innovative and flexible educational methods, to include blended learning—combining in-residence instruction with on-line modules. The first stage will transition the four most utilized ACD courses: AFRICOM Theater Course, CENTCOM Theater Course, SOF Air Command and Control, and Intercultural Competency Basic Course to the blended learning format. Look for the first blended courses to be available in Academic Year 2018.

It is an exciting time to be an Air Commando at USAFSOS, delivering firstclass, relevant, and timely education to Special Operations Airmen worldwide.



About the Author: Mr Joe Polhamus is the Director of Institutional Effectiveness at USAF Special Operations School, Hurlburt Field, FL. He has served as the Chief of Education & Training program at the Special Tactics Training Squadron (2003-2015).

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The 19th 505's Role in Air Commando

By Lt Col Chris Tharp

The 19th SOS was created to provide an organic formal training program for AFSOC's unique weapon systems like the AC-130H, AC-130U, MH-53, and MC-130E. However, the enemy, the terrain, and technology have evolved and driven modernization and recapitalization of our weapon systems. Today the squadron provides formal, refresher, and mission rehearsal training in SOF mobility, intelligence, surveillance, and reconnaissance (ISR), and precision strike for the MC-130H, U-28A, AC-130U, AC-130J "Ghostrider", Tactical Support Operators (TSOs), and Direct Support Operators (DSOs) at Hurlburt Field, and the C-145 and C-146 at Duke Field. The 19th also provides refresher, continuation, and distributed mission operations (DMO) training for the CV-22.

Special operations mobility is the

cornerstone of the AFSOC mission. MC-130H, C-145, and C-146 crews learn NVG, low level, and airdrop skills to support special operations forces during contingency operations. C-145 and C-146 crews also learn to land on and work in some of the most austere locations in the world.

The U-28A is a very effective manned ISR aircraft. The 19th SOS trains an average of one new class each month and the graduates will ultimately receive orders to one of three operational squadrons located at either Hurlburt or Cannon. The service these crews provide to ground forces and decision makers has played a pivotal role in eliminating some of the highest level enemy personnel from the battlefield.

The AC-130J formal training program stood up officially in late 2016 and with it the 19th SOS began a new chapter in its long history of gunship training. AFSOC gunship platforms continue to be some of the most requested close air support (CAS) aircraft in the Air Force. New students train in a variety of missions like CAS, interdiction, and armed reconnaissance, and within the next three years the AC-130J schoolhouse will be the largest training program in AFSOC.

Creating Air Commandos is a team effort, and the journey begins well before the students enroll in the 19th SOS. Students begin their training with a series of advanced academic courses at the USAF Special Operations School and the 371st Special Operations Combat Training Squadron. These courses are designed to expose the Airmen to a variety of situations, knowledge, and capabilities, to begin thinking like an Air Commando. After the academic courses,



Crew member boards an AC-130J. (Photo courtesy USAF)

the students begin the technical portion of their training in their specific weapon system or skill set. Classroom lecture and discussion is augmented by computer based training and ultimately leads to full mission simulator training scenarios built to test the fortitude of the crew and the individual. They are taught by instructors who collectively have flown missions in every major combat operation or conflict the US has participated in since Vietnam. This cadre works in concert to produce tomorrow's Air Commandos and the skills and experiences they bring are invaluable to the mission.

Pushing the limits is what the simulator phase is designed to do. Students are given real world scenarios to create opportunities for the student to learn in a controlled environment where the variables can be manipulated. After the simulator phase, students transition to the flight line to experience the missions

they have been training for with all the added elements of actual flights. The noise and motion introduce new variables that require significant crew coordination and situational awareness. Once they master basic missions they are thrown into the fire feet first with advanced tactical employment procedures that will test their mettle to the limit. Flexibility and adaptability are key elements that each student must master until they are finally weighed, measured, and evaluated in their final check ride. If they pass they will have earned the right be called an Air Commando.

The relationship between the 19th SOS and the men and women of AFSOC is lasting. As they gain experience in the operational squadrons, leadership will identify those ready for upgrade. Co-pilots will upgrade to aircraft commanders and special mission aviators will become instructors. Some will even

return to the 19th SOS and continue the legacy of training excellence.

The accomplishments of the men and women of the 19th SOS who are responsible for molding and supporting the next generation of Air Commandos are nothing short of exceptional. Last year they trained, qualified, and upgraded over 5,200 Air Commandos. The demand keeps growing and the squadron keeps rising to the challenge. The task is daunting and the demand is high, but creating Air Commandos is our "no fail" mission. The professional men and women of the 19th SOS will continue to be the cornerstone of the Air Commando evolution.



About the Author: Lt Col Chris Tharp is the commander of the 19th Special Operations Squadron, Hurlburt Field, FL





The history of the 551st Special Operations Squadron dates back to the early 1970's when it was activated as the 1551st Combat Crew Training Squadron at Hill AFB, UT. Their original task was to train early Air Rescue crewmembers to fly the HH-3 and HC-130 aircraft for operations in Vietnam. In the decades following, the mission evolved, technology and aircraft were upgraded, and the squadron moved, but they always held true to their dedication to training for special operations.

On 25 Jul 2009 the 551st SOS guidon was unfurled at Cannon AFB where it continues its proud legacy by training AC-130W and MQ-9 crews. The 551st also created the training program for AFSOC's "Non-Standard Aviation" or NSAv fleet. These aircraft specialize in worldwide low-signature special operations mobility. The NSAv fleet has included the Pilatus PC-12, Bombardier Q-200, and the M-28 Skytruck. The most recent addition to the fleet is the Dornier 328 which has been re-designated as the C-146A Wolfhound.

As the needs of the Air Force evolved, so has the 551st SOS. When combatant commanders identified a requirement for increased precision strike capabilities, the MC-130W was modified and remissioned to become a full-time gunship and renamed the AC-130W Stinger II. This new version was first designed to carry ten AGM-176 Griffin laser guided missiles, but a 30mm cannon was quickly added. The aircraft was then modified again to carry up to eight GBU-39 small diameter bombs and a 105mm cannon. Each of these modifications adversely impacted the training pipeline and the operational unit, until AFSOC retired the AC-130H and MQ-1 and relocated the C-146 NSAv aircraft to Duke Field. This strategic fleet management enabled the 551st to focus solely on the MQ-9 and AC-130W training pipelines and to support continuation training for the remaining weapon systems at Cannon.

Remotely Piloted Aircraft (RPA) training in the 551st is the definition of maximizing finite resources. The students accomplish basic and initial qualification training in San Antonio and Holloman respectively, so when they arrive at Cannon the 551st focuses on the special operations specific training they will need to execute no-fail missions with the highest levels of oversight. In true

Air Commando fashion, this training is conducted on the battlefield. After just seven simulator rides the students begin controlling live aircraft in the airspace over the battlefield. They collect realtime intelligence and support numerous special operations units executing high priority missions. They complete six of these "combat training" rides on combat missions in various locations, all under the watchful eyes of 551st instructors. This high intensity training ultimately prepares them to execute hostage rescue missions, assist with capturing high value personnel, and safely directing troops through enemy territory to forward operating locations.

The 551st incorporates advances in weapons simulation technology into the daily training profiles for all crews. The primary example of this is the AC-130W training program. This aircraft boasts a vastly advanced array of daylight and infrared sensors and state-of-the-art avionics and datalinks that provide high definition situational awareness, all with a smaller crew. Live fire training has improved with moving target simulators, and dry fire training has been augmented with on-board missile and bomb flight

profile simulators. These devices give crews more realistic practice in PGM delivery without captive-carry inert munitions. The aircraft can even be programmed to provide simulated weapons malfunctions to present the crews with realistic emergency procedures training. We also use a full-motion flight-deck-only Weapon System Trainer (WST) for basic qualification and pilot proficiency training. This technology provides a higher quality of training at a lower overall cost, and more importantly, less stress on the airframe.

The AC-130W requires complicated crew resource management to effectively engage targets and protect ground forces. Over the next few years, the squadron will receive a "back end" ATD training device simulating the Mission Operator Pallet, which will be linked to the flight deck WST and a future gun room. These advances will allow full crews to train to combat proficiency in a simulated environment. This three-part simulator will operate either as a single entity or as part of a Distributed Mission Operations (DMO) system conducting virtual missions linked with other AFSOC assets. Mission simulation allows crews to react to emergencies and damage without risking injury to the crew or damage to the aircraft. Simulators will continue to provide increased realism in what crews feel and see through improved aerodynamic and visual modeling and will enhance community wide training by linking joint partners together in a virtual environment.

The 551st SOS has trained over 2,000 Air Commandos since 2009, and will continue to adapt and overcome obstacles to meet the demand of special operations air power. The instructors of the 551st SOS stand ready to produce the finest AFSOC crews who will be ready to accomplish any task and conquer any challenge that may await them.



About the Authors: This article was created by the men and women of the 551st SOS and was edited by: Lt Col Dave Sloat, AC-130 Instructor Combat Systems Operator and 551st SOS Assistant Director of Operations (ADO); Maj Giles Evans, AC-130W Instructor Pilot and 551st SOS ADO; and Capt Chad Warner, MQ-9 Evaluator Pilot and 551st SOS Executive Officer.



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C-145 crew walks to aircraft for training mission. (Photo courtesy of USAF)

Education & Training #5_{th} 505

The 5th Special Operations Squadron is an Air Force Reserve component of AFSOC's Total Force Initiative (TFI), training and educating aircrew for Air Force Special Operations Command (AFSOC) and the Air Force Special Operations Air Warfare Center (AFSOAWC). The mission of the 5th SOS is as varied as the aircraft it flies. Currently the 5th SOS provides training support to the U-28A, C-145, C-146, AC-130U, MC-130H, and combat aviation advisor programs. The squadron also deploys to provide intratheater airlift support with their active duty mission partners.

The 5th SOS shares a Total Force Association with their active duty

counterparts, the 19th SOS at Hurlburt Field and helps alleviate the need for active duty instructors. They provide a great mixture of strengths, skills, and experience that could not be found with active duty instructors alone. The TFI construct integrates the three major contributors: civilian, active duty, and Reserve Component instructors accomplish the aircrew training mission.

Civilians are former military instructors who were previously qualified in the weapon system they are now supporting. These civilian instructors provide the formal training unit (FTU) continuity and help bridge the gap between the evolution of the weapon system and

the development of new tactics, techniques, and procedures (TTPs). The downside is that civilian contractors are unable support operations outside of the training environment or to augment forces during combat operations. This leaves them short of current theater experience, a factor crucial to the future development of the force.

Active duty instructors are critical to the TFI training concept because they provide the relevant current theater experience. Active duty instructors use their deployment and combat experiences to develop key training areas and TTPs. However this firsthand knowledge comes at a price. The operational squadrons need to provide a replacement for the deployed instructor in order to maintain the flying training program at the FTU. If the operational squadron is unable to backfill the deployed FTU instructor, student training slows or sometimes stops with direct impact on new aircrew arriving at the operational squadron. It is a classic case of a "vicious circle."

Which brings us to the role AFRC plays and the 5th SOS. The Reserve instructors are highly experienced instructors who can provide relevant combat experience during training and help fill in the gaps when active duty instructors deploy. They allow high quality aircrew training to continue with minimal impact on the operational squadrons and the students.

Last year the 5th SOS flew almost all of the AC-130U training sorties, a third of the U-28A training, and about three quarters of the C-145 training. They also began converting to the AC-130J along with their active duty counterparts. To ensure their tactical proficiency, instructors from the 5th SOS also supported operational squadrons during combat deployments and exercises in the Pacific, Central Command, and Afghanistan.

In 2016, the MC-130H FTU was moved from Kirtland AFB to Hurlburt Field. Reservists augmented 19th SOS instructors as they transitioned the course from Air Education and Training Command to AFSOC. The MC-130H FTU stood up in Nov 2016 with its first instructor class, followed a month later by the first initial qualification class. Also in the summer of 2016, the 19th SOS absorbed the C-146 FTU from the 551st SOS at Cannon AFB.

The TFI concept has been largely successful in the training and education mission, and the 5th SOS has been a critical mission partner in the development of Air Commandos. Total Force integration enables AFSOC to retain a pool of highly experienced people, while allowing them to balance military and civilian careers and ensuring the future of AFSOC by helping to develop the next generation of Air Commandos.

5 505 & 5 505 Det 1 AC-130U, MC-130H, C-145A, C-146A & U-28A FTU

- **♦** Responsible for providing 41 FTE positions providing approx 35% of flight & simulator training for AFSOC
- ◆ Instructors augment the operational units' deployed operations on a volunteer basis

FTU Operations (last 12 months)

- **◆ 2105 FTU sorties / 6344.8 hours**
- ◆ Graduated 249 students 5 MDSs
- ◆ Royal Jordanian AF C-145 Training at Duke Field

Combat Operations (last 12 months)

- ♦ 701 Combat sorties / 2510.4 hours
- ♦ 411 EKIA, 31 HVI, 140 vehicles destroyed
- ♦ 73 hostages rescued
- ◆ Supported ENDURING FREEDOM, INHERENT RESOLVE, FREEDOM SENTINEL, SOUTHCOM AOR, KEY RESOLVE/UFG 16

5 505 Aircrew Experience

Total:	
Flight Hours	191,433
Instructor Hours	40,086
Evaluator Hours	3,272
NVG Hours	30,655
Combat Hours	43,245
Combat Sorties	11,762
Average:	
Flight Hours	3,480.6

Flight Hours	3,480.6
Instructor Hours	818.1
Evaluator Hours	83.9
NVG Hours	
Combat Hours	
Combat Sorties	213.9
Years of Service1	4.7 years



371st Turning Airmen Into **Air Commandos**

By MSgt Richard J. Smith II



The transformation from Airmen to Air Commando begins at the 371st Special Operations Combat Training Squadron (SOCTS) where we instill the Air Commando ethos. The 371st SOCTS was activated in Aug 2010 to remove the burden of formal training from the operational units. Initially, the 371st SOCTS conducted Special Tactics and combat aviation advisor (CAA) recruiting and assessment & screening, the combat aviation advisor mission qualification course (CAAMQC), and small unmanned aerial systems (SUAS) training for United States Special Operations Command (USSOCOM). Now seven years old and on its fourth commander, the squadron has grown to be one of AFSOC's premier training entities, servicing 1200+ students annually and instructing over 80% of AFSOC's ground training.

The 371st SOCTS trains geospatial intelligence analysts from all Services in full-motion video exploitation and

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(Photo by Lori Werth)

intelligence, surveillance, and reconnaissance (ISR) tactical controllers to process, exploit, and disseminate ISR products to fulfill mission requirements. The squadron also provides Detachment 1, which serves as the joint formal training unit for up to 500 SUAS operators per year at Choctaw Airfield on the Eglin AFB range complex near Milton, FL.

The 371st SOCTS provides the AFSOC Security Forces' Deployed Aircraft Ground Response Element (DAGRE) training to prepare highly qualified Airmen for force protection duties in the higher threat locations where special operations Airmen are often deployed. DAGRE Air Commandos may be tasked to support humanitarian relief and non-combatant evacuation operations, or provide ground security elements during special operations. The DAGRE pipeline is an eightweek series of seven courses taught at Hurlburt Field twice each year. Airmen hoping to attend one of the DAGRE qualification classes must first complete a three-day assessment and screening program emphasizing physical fitness, teamwork, and mental toughness. If selected to attend the DAGRE qualification course, the chosen Airmen will learn leadership, fly-away security, combatives, and how to secure SOF resources in complex environments. There are approximately 200 DAGRE qualified Airmen in the US Air Force.

The squadron executes the Air Commando field skills course (ACFC), an intensive 15-day program of instruction open to all AFSOC personnel, but prioritized for AFSOC aircrews. As a key element in AFSOC's Air Commando development (ACD) program, ACFC takes students out of the typical air base environment to prepare them for austere and high risk operating locations. Students are introduced to tactical movement through urban terrain, advanced weapons handling with pistols and rifles, tactical casualty care, and tactical driving skills. At the end of the training, Air Commandos have many of the skills they need to credibly and efficiently operate

alongside special operators from the Army, Navy, and Marine

The Combat Aviation Advisor Mission Qualification Course (CAAMQC) is a four-phase, 12-18 month program to master a specialized set of skills Airmen will need to help key partners succeed. CAAs work in austere environments, often isolated from "normal" US Air Force support. This course helps new advisors master the techniques and procedures related to foreign internal defense and counterinsurgency. Particular emphasis is placed on survival skills, weapons proficiency, communications, risk management, language, and operational cultural application. The CAAMQC culminates in a field training exercise where students are immersed in a complex and realistic set of problems that challenge the future CAAs to balance competing priorities, cultural norms, and mission requirements. Once graduated, CAAs are capable of conducting special operations activities by, with, and through a partner nations' forces, globally.

Turning Airmen into Air Commandos is an endeavor that requires a holistic approach to training management, talent development, and education. Together with United States Air Force Special Operations School (USAFSOS) the two units provide synchronized education and training to provide Air Commandos the skills required to succeed across the spectrum



(Photo by Lori Werth)

of special operations. 371st SOCTS accomplishes this by focusing on four core functional areas: dynamic defensive driving, advanced weapons training, tactical combat casualty care, and individual force protection techniques. The 371st SOCTS will ensure that Air Commandos are ready for today, relevant tomorrow and resilient always!



About the Author: MSgt Richard J. Smith II is a combat aviation advisor (CAA) and Senior Enlisted Advisor for the 371st Special Operations Combat Training Squadron, Hurlburt Field FL.



Partner Nation 50f **Aviation Schoolhouse**



Partner Nation maintenance personnel train at Duke Field, FL. (Photo courtesy of 592 SOMXS)

By Mr Mark Durkin and Maj Michael McGee Jr.

Air Force Special Operations Command is no stranger to training foreign military personnel at home or abroad. Dating back to the early 1960's, Air Force special operators have engaged with foreign aviation forces to bolster a country's domestic security and to advance US national security interests. However, current fiscal constraints within the DoD have resulted in fewer engagements in fewer countries and have left planners at all levels searching for solutions. If we can't go to them, we'll bring them to us.

Over the last three years interest in a permanent SOF focused partner nation (PN) schoolhouse, located in the continental US (CONUS), has grown within AFSOC and across the Air Force staff in general. As a subordinate organization to AF Special Operations Command (AFSOC), AF Special Operations Air Warfare Center (AFSOAWC) is responsible for training USAF Air Commandos. Partnered with the 919th SOW (an Air Force Reserve wing at Duke Field, FL) in a Total Force enterprise, AFSOAWC owns the only two operational AFSOC units specifically designated, trained, and equipped to engage with partner nation aviation forces on their turf and in their specific aircraft. And despite all of their successes there are not enough combat aviation advisors (CAAs) to meet down-range engagement requests and maintain Congressionally mandated "deploy to dwell" ratios.

AFSOAWC planners began investigating the feasibility of conducting CONUS-based training operations for C-145A flying and maintenance after receiving a formal request from AF Security Assistance Training (AFSAT) to support critical US allies. SOCOM is no stranger to partner nation CONUS training. For example, the US Navy's Naval Small Craft Instruction and Technical Training School (NAVSCIATTS) run by USSOCOM trains 400-500 partner nation personnel annually and focuses on small craft operations, communications, weapons, and instructor development. Next,







planners evaluated courses offered to partner nations through the US Army's John F. Kennedy Special Warfare Center and School (USAJFKSWCS). These training schools underscored the value of conducting SOF-unique aviation training in our

On the surface, CONUS-based engagements, especially in a fiscally constrained environment, can be more cost effective for the DOD and provide better quality training in a safe operating environment. Between Eglin AFB and Hurlburt Field, a major benefit of CONUS-based training is the abundance of training locations, ranges, airspace, and resources that can be arranged in endless configurations to provide unique training opportunities.

An additional advantage of training partner nations in the US is the significant enhancement to follow-on overseas engagements when working with the same partners who received their initial training in the US. This distinct advantage provides AFSOC a unique opportunity to train a partner nation aviator to a common standard and develop long-lasting and solid personal relationships with those crews and work with the same personnel OCONUS to help integrate their new capabilities.

The future concept of an AFSOAWC partner nation "graduate-level" CONUS school would be to provide advanced tactics, techniques, and procedures (TTPs) in aircraft for ISR operations, SOF Mobility (airdrop & NVG Ops), and potentially armed reconnaissance / strike aircraft. The conceptual schoolhouse would teach advanced TTPs that PN students can apply to aircraft in their inventory and expose them to simple aircraft that may be better suited to their country in regards to cost, maintenance and mission execution.

Some of the benefits to PN training in CONUS:

- AFSOC Combat Aviation Advisors (CAAs) can train PN while in "dwell" status
- Fully capitalize Air Force Reserve CAAs using the Total Force Initiative (TFI) concept
- Access to safe, well maintained AFSOC-owned aircraft
- Graduate events (Airdrop/STOL/NVGs/ISR) conducted in restricted/controlled airspace
- Students in scheduled structured courses with written and flying evaluations
- Embassies familiar with sending PN students to International Military Education Training (IMET) and Military Articles and Services List (MASL) courses
- PN receive exposure to US culture and AFSOC military personnel/standards

The first beta test of a CONUS-based SOF aviation schoolhouse occurred in 2016 when 13 personnel from the Royal Jordanian Air Force (RJAF) attended a 4 month course at Duke Field, FL for C-145 flying and maintenance training. The Irregular Warfare directorate of the AFSOAWC established the course in support of a Jordanian Foreign Military Sales case executed by Air Force Security Assistance Training, and approved through AFSOC and USSOCOM.

The students received basic qualification in the aircraft and, after successful completion of their initial qualification, moved on to advanced TTP training. In a parallel effort to the



offered flying training, eight RJAF maintenance personnel attended four months of transition training to prepare them for maintenance operations with the C-145. Students were broken out into crew chief, engines, and avionics courses for academics and hands-on training.

The cadre and responsibilities for the course execution were split between AFSOAWC Irregular Warfare Plans, 19th SOS/Det 1, 5 SOS/Det 1, 6th SOS, 711th SOS, and various support agencies. Additional language and cultural advisory assistance was provided by the AF Language Enabled Airman Program (LEAP) and Military Accessions Vital to National Interest (MAVNI) personnel assigned to the USAF Special Operations School. During the execution phase the team worked together to provide training, administrative, and medical support, as well as social and cultural engagements. The initial course was deemed to be a success. The RJAF students received world-class training and were given an up-close look at American culture and government institutions.

Today, AFSOAWC has another foreign class on the ground and training quota requests from three other countries for the C-145. AFSOAWC's aircraft portfolio will undoubtedly generate interest in additional CONUS-based training options. Some interest in CONUS-based training is to enhance current relationships, to support regional security efforts and organizations, and other requests are due to AFSOCs premier warfighting expertise.

The envisioned end state of an AFSOC/AFSOAWC PN schoolhouse is to connect AFSOC's "Jungle Jim" heritage with today's Air Commandos. The design of the schoolhouse would require single and twin engine platforms to execute courses for US and PN students in light mobility (Airdrop, NVG), ISR, and potentially armed reconnaissance/light strike. While the main focus of the school would remain centered on flying training,

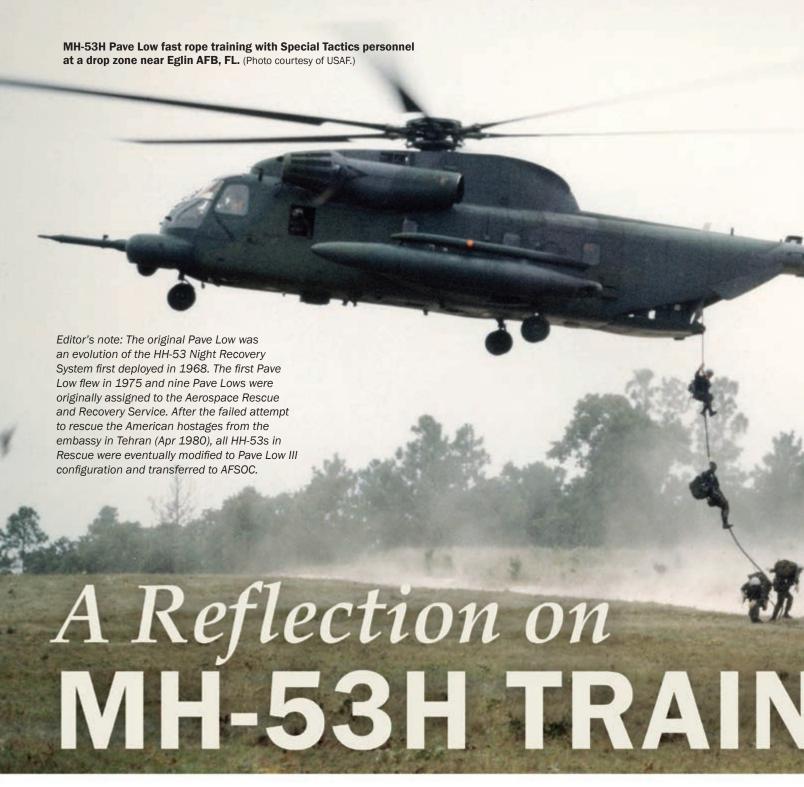


there are out-growth opportunities to conduct additional high demand non-flying training such as expanded maintenance and tactical medical training.



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By Pete Riley, SMSgt, USAF (Ret)

Pave Low... wow. It was finally happening. I had reassignment orders to the 20th Special Operations Squadron (SOS) located with its parent 1st Special Operations Wing (SOW) at Hurlburt Field, FL, in hand and a report date of 31 March 1987! As an HH-53 Instructor Flight Engineer (FE) assigned to the 41st Aerospace Rescue and Recovery Squadron at McClellan AFB, CA., I had been hearing a lot of chatter about the plan to convert all USAF HH-53B/C and CH-53C aircraft to the HH-53H, Pave Low III configuration and assign them to special operations. Now it was coming to fruition. The

closure of the 41st was announced, and the first of us received our orders early in 1987.

We were very familiar with the 20th SOS as our mission at McClellan included Rescue Special Operations Low Level, and we had teamed with the 20th on a number of occasions for training exercises at various locations throughout the US. I had always been intrigued by the H-model Pave Low III and its suite of sophisticated navigation and mission systems. In Rescue, our "standard" HH-53B/Cs had a palletized Inertial Navigation System and Doppler. But the seemingly cosmic



Pave Low Central Avionics Computer (CAC), Projected Map Display, and terrain following radar provided a capability far beyond our Rescue birds. Couple that with early Global Positioning System navigation suite, (not available to the civilian community at that time) and the Pave Low's capability to mount .50 caliber weapons, and I knew I was getting ready to play with the big boys. I couldn't wait to get to Hurlburt. Now I just had to be trained on this awesome aircraft!

I was the first FE to arrive. TSgt Leonard Sullivan, also from the 41st, followed a day or two later. We knew upon

our arrival that we would very quickly be entered into training in order to support the upcoming influx of FEs also arriving from other H-53 units at Sembach Air Base, GE, and Kirtland AFB, NM. This also meant that once we were MH-53H qualified, we would be upgraded immediately to Pave Low Instructor FEs. While we had all been trained at one point or another through a formal school for the H-53 aircraft, there was currently, no formal HH-53H school. All training was accomplished locally by the 1st SOW Central Training Flight (CTF) using additional duty instructors assigned from the 20th or the 1st SOW. Leonard and I would be the first McClellan HH-53 Flight Engineers to become HH-53H qualified.

The CTF was located a couple buildings down from the 20th and housed a classroom, CAC mockup, and a few other training items apparently scavenged from other aircraft. I enjoyed the training, which was comprised mostly of detailed lecture discussions using the aircraft technical manuals, and grease pencil notes and diagrams on overhead transparencies. MSgt Rick Dolby was one of the instructors and did an awesome job getting Leonard and I up to speed on the complex systems. Before long, we began the flying phase and quickly became qualified HH-53H FE Instructors just in time to accommodate the arriving crews from the other squadrons. The 20th SOS was growing at a rapid pace, and with further advanced model upgrades already in progress it wouldn't be long before the HH-53H model would be obsolete and the CTF would begin training crews on the more complex MH-53J systems. The 1st SOW CTF would go on to provide that valuable training until a formal MH-53J school was activated at Kirtland AFB, NM, with a new J-Model simulator and updated courseware.

AFSOC training has come a long way since those early days of training provided at the CTF. Level D simulators, interactive desktop trainers, level 4 computer-based training, virtual reality, and high fidelity electronic classrooms now provide awesome training for our special operators. I cut my training teeth in the basic H-53. I have been involved in aircrew training for the past 34 years and have seen a lot of training methodologies, procedures, philosophies, and technologies come and go. While technology has made training of complex systems and tactics more effective, I can't help but think of how valuable and effective my CTF training was thanks to guys like Rick Dolby, Tim Thimmons, Jim Eustace, Pappy Walters, and Jeff Walls, who used experience, creativity, and low tech training methods to bring that next cadre of Pave Low warriors to the 20th SOS.



About the Author: Pete Riley, SMSgt (Ret) is a former Pave Low Flight Engineer and ACA Board of Directors member. He holds a doctorate in Education and has been involved in the design, development, and implementation of aircrew training since 1984. He is currently employed as the Director of Training Product Solutions for Flight Safety Services Inc. in Centennial, Colorado.

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FOCUS ON THE

58 SOW

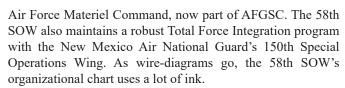
By Lt Col Matt Doberman

DIVERSE MISSION









But while the wing's stake-holders and responsibilities are many, the wing remains devoted to a singular, SOF-influenced vision, "To be the world's premier training organization, driven by innovation to produce empowered Airmen...warriors who will go when no one else can or no one else will."

The 58th SOW's philosophy and mission have never been more relevant. While Kirtland's history as an advanced flying training base dates back to World War II, the 21st century engagements in Iraq and Afghanistan have amplified the wing's value as a critical provider of mission ready aircrew to meet real-world operational challenges. The 58th SOW's training areas, literally its "back yard," is one of the best facsimiles for the austere high altitude environments found in Afghanistan and parts of Iraq. Visually, it is no accident that the Wing's aircraft and flight line have featured in several recent movies set in Afghanistan. As the 58th's instructors and students will attest, the high altitude and desert conditions create an uncommonly challenging flying environment with stark similarities to recent deployment locations.





Simulated Reality, Real Training

The wing supplements these demanding flight operations through the innovative use of technology, notably the flight simulators assigned to the 58th Training Squadron (TRS). While simulators have become commonplace in military and civilian training, the 58th SOW is a leader in expanding the traditional boundaries of simulator-based instruction, particularly for SOF and other tactical applications.

To appreciate the value of what the 58th TRS is doing with simulator-based training it is important to understand the variety of ways the TRS integrates these high quality training devices into training. Simulators can provide fairly realistic stand-ins for aircraft which are far more expensive to operate and maintain. For aircraft like the CV-22 and MC-130 variants which have relatively high sustainment costs per hour of operation, simulator flights represent significant cost savings. And though the simulators are complex machines in their own right, with their own maintenance teams to keep them running, simulators typically are more dependable and are unaffected by weather. This reliability and availability provide consistency and stability to training programs.

Simulators are, of course, not without limitations. Certain flight events are simply too closely tied to environmental, mechanical, and human aspects to be perfectly modeled and simulated. Hovering a helicopter is a good example of a flying maneuver that is difficult to model in a simulator, even in a full-motion simulator (sometimes, particularly in full-motion simulators - airsickness in a simulator can be anything but simulated). Hovering is a "feel" event that is hard to replicate.

Many events, however, can be replicated extremely well in simulators and part-task-trainers. For special operations and combat search and rescue (CSAR) aircraft, a variety of moderate to high-risk activities can be safely and effectively taught and practiced in the simulators. This gives students the opportunity to practice multiple repetitions of these maneuvers at a high level of fidelity they could not practically, consistently, or safely accomplish in the aircraft. For example, CV-22 terrainfollowing/terrain avoidance (TF/TA) radar flight can be flown simulating dense terrain conditions that provide a cockpit experience very close to the real thing. Likewise, MC-130

sorties can be flown in environmental geographic conditions, example mountainous flight with low power margins, that would be difficult or contrary to regulations to accomplish using the actual aircraft.

Indeed, some high-risk mission events can be trained for more realistically in the simulator than in the aircraft, where safety measures and regulatory limits may prohibit how realistic actual flying can be. A simple example is the weather limitations for training events. Crews generally cannot fly in instrument meteorological conditions close to the ground, but that kind of all-weather terrain navigation and airspace penetration is a fundamental part of the special operations and rescue mission-set. Simulated flight can be flown in weather that would not be acceptable for training or peacetime operations, but might be within acceptable risk limits for a real-world

mission. A simulator, in other words, can ensure that the first time a crew "sees" high-risk environmental conditions is not in an operational environment.

Similarly, threat mitigation in the simulator can be accomplished to a degree of realism impossible in the aircraft. Simulators can accurately correlate modelled threats and threat indications with corresponding countermeasures, allowing students to take actions to defeat realistic threats that are not available or possible during live fly training missions.

Along the same lines, emergency procedures training in the simulator can reproduce conditions difficult or impossible to fully duplicate in an actual aircraft. And as students know, simulator operators (both active duty and civilian, most of whom are retired SOF and CSAR aviators themselves) are not shy about combining environmental, emergency, and mission-related threats into a nightmarish cocktail designed to stress the limits of performance, but maintaining a controlled environment. An autorotation with 100 foot ceilings? Multiple engine fires following a missile engagement? Name the situation and the simulator operators can likely provide it. "Our pilot syllabus has 107 hours of Sim and 41.5 of aircraft" said Maj Jason Hock, Director of Operations for the 71st SOS, the CV-22 training squadron. "Simulators are absolutely critical to our success. We can put students in realistic scenarios with emergencies and complex night missions on NVGs, and let them explore the aircraft's capabilities without putting them in actual danger."

It is easy to see how simulators can be much more than a simple cost-effective replacement for actual flight. In the hands of the 58th SOW a simulator is an essential part of graduatelevel flight training that supplements and expands aircraftbased training sorties.



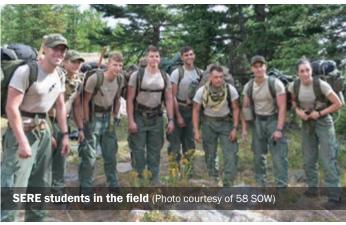
No discussion of innovation in the 58th SOW would be complete without mentioning another crown jewel in the 58th TRS's training array – the Monster Garage, recently called "AFSOC's Secret Training Weapon" by Defense News. Situated around the corner from the 58th SOW headquarters, the Monster Garage is a former Second World War B-24 hangar, now filled with functioning, hands-on training equipment, much of it specially modified by the TRS's own fabrication experts.

The ingenuity at work in the Monster Garage, as with the TRS's simulators, saves money (tens of millions a year) and provides repetitions on essential mission events and training time in a controlled environment. In the Monster Garage, loadmaster students can practice loading an actual Humvee in the back of an actual MC-130 fuselage (once destined for the Boneyard), while at the same time helicopter special mission









aviators can operate a personnel recovery hoist mounted on a real helicopter fuselage, itself mounted on speciallybuilt platform.

Like the nearby simulators, the equipment in the Monster Garage can be scheduled independent of weather, at times outside established flying windows, and without adding demands for aircraft generation.

Meanwhile, the 58th TRS is continuing to lean forward with cutting edge innovation. The next frontier might be virtual-reality (VR) training, with testing in the works on CV-22 VR training systems using commercial, off-the shelf technology modified, of course, by the TRS' experts.

Preparing Airmen for the Worst

The 58th SOW's diversity of mission extends beyond flying training at Kirtland AFB. The 58th SOW is also the parent organization to the 336th Training Group (TRG), near Spokane, Washington. While the average Air Force flyer may not know the Group's numerical designation or chain of command, they are definitely familiar with it. Airmen who take to the skies follow many different paths to many different airframes and job specialties, but all those paths converge at the USAF's Survival, Evasion, Resistance, and Escape school. As a requirement for operational qualification, combat survival training is a legendary right-of-passage, but it is also a carefully orchestrated, immersive training experience made possible by a team of dedicated professionals.

SERE specialists are experts in everything their acronym stands for. The Air Force, with its extensive and sometimes tragic history of isolated and captured personnel, is the only Service that has recognized SERE training and operations specialists with their own specialty code.

Before someone may instruct SERE, candidates go through a rigorous selection and training program at the 336th TRG. SERE is an AFSC that is hard to man because of the physical and mental demands placed on the candidates, compounded with force-wide recruiting limitations, but it is also a career that is hard to pry people away from. SERE is not for everyone, but for those who earn the sage beret, it is a unique and satisfying calling.

"The Air Force has been practicing the SERE mission for a long time," said 336th TRG commander, Col Marshall Groves, "and has developed a resilient, mature capability with a proud lineage of superbly trained, wellorganized, professional Airmen." This heritage is a large part of why the SERE instruction is a natural fit within the 58th SOW. In fact, the 58th SOW as an organization is a good metaphor for SERE as a career field - not part of AFSOC itself, but with many features that make it a logical fit with special operations, yet inherently part of Air Education and Training Command. SERE specialists are part of the triad of Air Force specialties that fall under the Guardian Angel weapon system, along with pararescuemen (PJs) and combat rescue officers (CROs).

Together, these three AFSCs are responsible for the full spectrum of personnel recovery. The PJ and CRO career fields have significant representation throughout AFSOC and ACC. ACC manages the Air Force's operational CSAR assets: HH-60 helicopters, HC-130 airplanes, and the Guardian Angels. All of these PR assets have their schoolhouses aligned under AETC and the 58th SOW.

Once again, the connection between the 58th SOW and the SOF, SERE and CSAR communities becomes clear once the diversity of 58th SOW training and its downstream customers is understood. And like the other branches of the 58th SOW, the 336th TRG has also innovated and modernized. Just as experiences from the Vietnam War heavily influenced changes in SERE training in decades past, so have experiences from 21st century conflicts motivated changes to increase the relevance of SERE training for present and future Airmen. Through careful study of real-world events, both those pulled from the headlines and those less-well known, the Air Force's SERE experts have gone beyond traditional scenarios based on major combat operations between nations. SERE specialists now offer basic and advanced training that encompasses capture by non-governmental elements and non-traditional detention scenarios.

Another example of this innovative approach is the development of the Evasion and Conduct After Capture (ECAC) courses of instruction, with a dedicated facility at Lackland AFB, TX. Operated as a detachment of the 336th TRG's 66th Training Squadron, the courses met the 21st century demands of an Air Force that increasingly found regular Airmen "outside the wire" and at elevated risk of isolation and capture, including Airmen working to develop civilian infrastructure and those serving "in-lieu of" taskings with the Army. Assigned to positions outside of the typical Air Force structure, these Airmen did not have dedicated Air Force training to prepare them for the demands of their missions. The ECAC program filled that critical pre-deployment need.

When it comes to preparing Airmen for the worst, it only makes sense that the 336th TRG's training environments reflect the diversity of possible scenarios. "The Pacific Northwest provides a unique training environment, offering desert, forest, jungle, and coastal environments for realistic training all within a relatively compact area," said Groves. "A patchwork of agreements and relationships with local governments, the US Forest Service, Native American tribes, and landowners enables us to continue training through 4 seasons and 48 weeks a year."

In addition to its detachment at Lackland AFB, the 66th TRS also has a detachment at Eielson AFB, Alaska. This is the Air Force's Arctic Survival School. Most graduates of their five-day course are flyers assigned to cold-weather bases. The "Cool School," as Airmen magazine recently dubbed it, routinely hosts students from other government agencies that also operate in unforgiving Arctic conditions, such as the US Coast Guard and the National Oceanic and Atmospheric Administration.

The Arctic survival course focuses on the core skills that Airmen who are isolated in cold-weather environments need to survive, from building thermally-sound structures out of snow and any available material, to finding water sources when everything around them is frozen. But the school also addresses the acute mental challenges of finding yourself alone with snow in every direction. As with other SERE courses, the arctic survival school teaches that survival is more than just a matter of physical toughness, and that mental and physical skills go together. The instructors teach the skills to survive, which in turn gives the students confidence that they can succeed in a harsh natural environment, thus empowering the individuals' will to survive if or when they find themselves in such a position.



Conclusion

On their way to becoming fully qualified professionals, all Air Force aircrew members pass through the doors of the 58th SOW, if not for flight training – like nearly all AFSOC and CSAR personnel – then for SERE. With more than 20,000 students trained every year, including aircrew from 32 different crew positions following nearly 120 different training courses, it is no surprise that there is not one specific mission that defines the 58th Special Operations Wing.

Rather, like all special operations, the 58th SOW is defined by its flexibility and diversity, accomplishing high quality and relevant training that would be impossible without constant innovation.

"Airpower is Airmen's power," said Col Brenda P. Cartier, the commander of the 58th SOW. "We are driven by an ethos of warriors training warriors. Our charge is to instruct, inspire, imagine, and innovate in order to develop and graduate Airmen who are prepared, on Day One, to accomplish those missions that no one else can or no one else will."



About the Author: Lt Col Matt Doberman is a former MH-53 pilot and combat aviation advisor. He's currently instructing in the UH-1N at the 58 Special Operations Wing.



The V-22 Osprey "tilt-rotor" is a unique multimission aircraft capable of vertical and short takeoff and landing. Typically, it takes off and lands like a helicopter. However, when airborne, its engine nacelles and 38-foot, three-bladed proprotors can rotate forward 90 degrees for horizontal flight, converting the Bell Boeing aircraft into a more fuel-efficient, higher-speed turboprop aircraft.

The US Marine Corps was the lead service in development of the Osprey and has acquired the largest number. The USMC variant, the MV-22, serves as an assault transport for troops, equipment, and supplies and can operate equally well from ships at sea or expeditionary airfields ashore. The Air Force variant, the CV-22, is used by Special Operations Command for longrange insert and extraction. CV-22 is equipped with extra fuel tanks and integrated threat countermeasures, as well as terrain-following radar and advanced avionic systems that allow

it to operate at low altitude, at night, in poor weather, and in high-threat areas. It has been used operationally for long-range infiltration, exfiltration, and resupply missions for SOF of all services.

The V-22's extreme technical complexities produced a long, costly, and difficult development period—consuming 25 years, \$22 billion, and 30 lives in crashes. In the early 1990s, Defense Secretary Richard Cheney tried, without success, to kill it. In the 2000s, crashes caused by "vortex ring state" lift problems forced a grounding and significant redesign. Since its operational debut in 2007, Marine and USAF Ospreys have performed well in Afghanistan, Iraq, Libya, Kuwait, and in various African locales. USMC has about 240 in inventory, the Air Force about 50.

—Robert S. Dudney with Walter J. Boyne

USAF Ospreys take off from Kirtland AFB, N.M., on a training mission.

This aircraft: USAFCV-22 Osprey—#11-0057, *Knife 75*—as it appeared in 2015 when assigned to the Air Force's 7th Special Operations Squadron, RAF Mildenhall, UK.



In Brie

Designed, built by Bell Helicopter and Boeing * first flight March 19, 1989 (helo mode) and Sept. 14, 1989 (fixed wing mode) ★ function, assault and SOF transport ★ number built approx 400 ★ crew four (pilot, copilot, two flight engineers) ★ two Rolls-Royce Allison T406/ AE1107C turboshaft engines ★ max speed 351 mph ★ cruise speed 277 mph ★ rotor diameter 38 ft ★ length 57 ft 4 in ★ wing span 45 ft 10 in ★ height 22 ft 1 in ★ width (rotor edge to rotor edge) 84 ft 7 in. Specific to CV-22B: armament, one .50 cal-M2 Browning machine gun ★ max payload 10,000 lb ★ troop capacity 24 seated or 32 floor-loaded ★ max range 1,011 mi ★ combat radius (with aux tank) 575 mi ★ weight (max T/O) 60,500 lb ★ service ceiling 25,000 ft.

Famous Fliers

Mackay Trophy 2012: USAF Rooster 73 Flight—Ryan Mittelstet, Brett Cassidy, David Shea, Christopher Nin, William Mendel, Arjun Rau, James McKay, Kenneth Zupkow, Taylor Fingarson, Daniel Denney, Alberto Delgado, Jeremy Hoye. Distinguished Flying Cross: David Haake (USMC), Michael Hutchings (USMC). Other

USMC Notable: Michael Murphy (former presidential helicopter pilot, killed in 2000 test crash). Test Pilots: Thomas Macdonald (Kincheloe Award 2003); John Rudzis, William Wainwright, Thomas Currie, William Witzig, Kevin Gross, Chris Seymour, Michael Healy, William Leonard, James Lindsey, William Norton, Steven Grohsmeyer, Martin Shubert (Feinberg Award 1999).

Interesting Facts

Deemed the world's first production "tilt-rotor" aircraft * carried body of Osama bin Laden from Pakistan to USS Carl Vinson for burial at sea * spurred into development by 1980 Iran hostage rescue fiasco * suffered seven hull-loss accidents * won Robert J. Collier Trophy in 1990 * opposed, at first, by DOD leaders, but backed by Congress * has performed rolling landings and takeoffs on carrier * used by presidential candidate Barack Obama in 2008 tour of Iraq * featured in 2007 and 2011 "Transformers" movies * able to fold rotors for storage in 90 seconds * can transition from forward flight to 50-foot hover with no pilot interaction * requires use of oxygen masks above 10,000 feet.

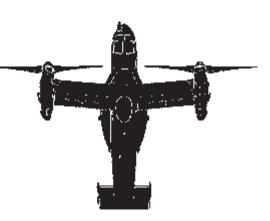


Illustration by Zaur Eylanbekov

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The Evolution of Special Tactics' Training

By Lt Col Francis D. Friedman and Capt Nathan Betcher

Special Tactics Training Squadron students swim the length of the pool with their hands and feet bound during a pre-SCUBA class at Hurlburt Field, FL. (USAF photo by SrA Ryan Conroy)



Last month, a military Service-wide review of medals awarded since 9/11 determined that SSgt Christopher Baradat's actions in 2013 were deserving of the Air Force Cross. Anyone familiar with the combat controller's (CCT) actions four years ago will understand why his acts of extraordinary heroism under fire warrant the military's second highest combat decoration. While attached to an Army Special Forces team sent to rescue coalition forces pinned down by enemy fighters in Kunar Province, Afghanistan, his unit was decisively engaged. As the team's primary air-to-ground integrator, Baradat was able to call in and precisely direct close air support from A 10 Thunderbolt IIs and circling AC-130 gunships. By engaging the enemy threat less than 1,000 meters from their position, his team was able to move to cover in a small compound closer to the pinned down troops. Outnumbered and outgunned, with the thick walls of the protective cover interfering with his radio signals, Baradat knew his team would soon be surrounded and left the shelter of the compound to communicate directly with their support aircraft. With disregard for his own safety and yells from his teammates to take cover, Baradat stood in the open courtyard for two hours to direct continuous bomb drops and gun runs against an entrenched enemy. With the enemy temporarily subdued, his team and the force they were sent to rescue gained the opportunity to rendezvous and withdraw.

His heroism did not end at the compound; with the armor of his vehicle interfering with communications, he stood on the running boards during the exit through a narrow canyon to continue directing aircraft covering fire. His decisive actions helped save the lives of 150 US and coalition soldiers while eliminating many enemy soldiers and 13 fighting positions.

Baradat's actions, and those of so many of his brothers in arms, exemplify why Special Tactics (ST) is the most highly decorated community in the Air Force since the end of the Vietnam War. If heroism can be measured by its operators earning 9 Air Force Crosses, 34 Silver Stars, 650 Bronze Stars, hundreds of Bronze Stars with valor, and more than 140 Purple Hearts since 9/11, then ST's success is best gauged by the endless calls to support SEALs, Special Forces, and Rangers across the globe every day. Today, CCTs, special tactics officers (STOs), pararescuemen (PJs), tactical air control parties (TACPs), and special operations weather technicians (SOWTs) of the 24th Special Operations Wing (24 SOW) are capable of solving combined air and ground problems across all spectrums of conflict and crisis. Able to operate in support of joint partners as well as organically in special tactics teams, the 24th SOW provides airfield reconnaissance, assessment, and control while expertly delivering crucial capabilities in personnel recovery, joint terminal attack control, environmental reconnaissance, and now battlefield surgery. The ability to simultaneously train troops in such a diverse array of critical skills while maintaining elite proficiencies in everything from military freefall to combat diving and ground maneuver combat is a hallmark of ST. These are not capabilities that are easy to earn or maintain, but they are made possible by a little known squadron at Hurlburt Field, Fla., known as the Special Tactics Training Squadron (STTS). As Baradat observed after the battle, "You never know what to expect going into any combat situation, but I do feel that the intense and diverse training that I received from... the Special Tactics community set me up to handle the stress of the situation."

Heroes are born, not made, and there is no training program in the world that can truthfully claim that it creates heroes. However, as Baradat alludes, training can be credited for equipping Airmen with the tools to act decisively and effectively when such situations develop. It is for this purpose that the 720th Special Tactics Group created the STTS at Hurlburt Field. The mission of the unit is to supply and

sustain Special Tactics Squadrons (STSs) with worldwide combat power through the expert and professional training, mentoring, and production of special operations warriors. These warriors regularly perform complex and dangerous training in military freefall parachuting, rotarywing infiltration/exfiltration, live-fire field exercises, underwater navigation, fast rope/ rappel, advanced weapons skills, AC-130/rotary wing call for fire (CFF), long range command and control, and vehicle-borne operations. In addition to training Air Force operators, the STTS also manages the Special Operations Terminal Attack Controller Course (SOTACC) in Yuma, AZ, where seasoned veterans from all Services are sent to learn effective implementation of close air support (CAS). Today, the STTS completes the advanced upgrade training of Air Force Special Operations Command's (AFSOC) PJs, TACPs, SOWTs, and is the home station for CCT and STO apprentices during the second half of their two-year pipeline.

However, the STTS itself is only the most recent construct of a decades-long development process. In fact, before 1997, there was not even a consolidated location or universal curriculum for CCTs once they graduated their apprentice course. Graduates of Combat Control School left that qualifying course with their coveted scarlet berets and apprentice-level skills in communications, demolitions, land navigation, tactics, and assault zones survey and control. They then checked in directly to their operational STSs and only received full-mission qualification as time and resources allowed. Those operators' pipeline began at Lackland AFB, TX, with an indoctrination program serving both PJ and CCT candidates. "Indoc," as the Indoctrination Course was known, consisted of a 12-week program of grueling underwater confidence training, long-distance finning, running, and calisthenics with an attrition rate of nearly 80 percent.

Candidates would graduate Indoc and head directly to Special Forces SCUBA School, also considered one of the toughest schools in the Green Beret pipeline, where more students would quickly wash out. Those who graduated would then complete Air Traffic Control, Airborne, Military Freefall, and USAF Survival, Evasion, Resistance, and Escape (SERE) schools before heading to Combat Control School where they finally learned their core skills. CCTs who successfully navigated these challenges would then check in at one of three active stateside STSs.

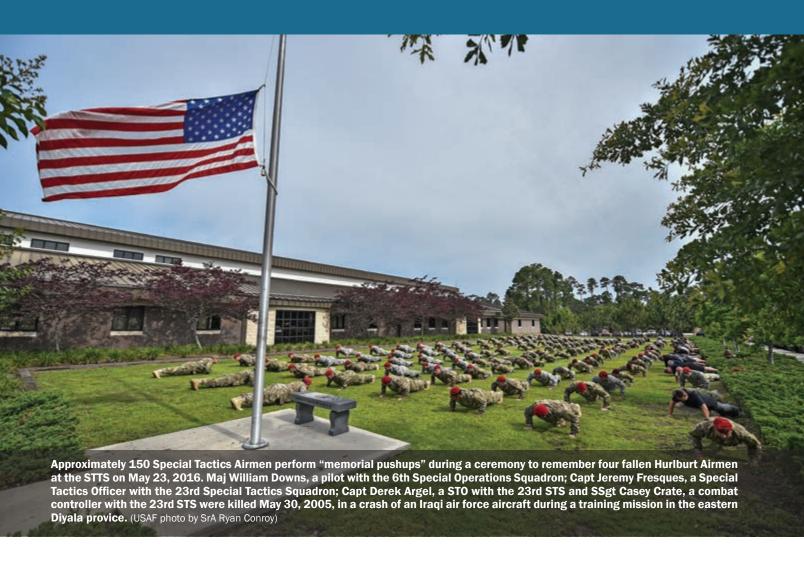
These units were not only responsible for maintaining currency of mature troops and fulfilling operational demands, but also had to conduct all advanced training for their next generations of warriors. This framework produced capable and effective CCTs, but it also drained resources from operationally-saturated units and created inconsistent baseline training and operational capabilities that varied from unit to unit. With demands on the STSs and the need for missionready operators growing rapidly, AFSOC took the first step



IFAM Cadre posing with one of the first graduating classes of the new ST IFAM program. Standing far left Mr. Ronald Childress (IFAM Director of Training), kneeling front row left TSgt Dirk Wenrich (PJ), and standing far right MSgt Bart Decker (CCT). (Courtesy Photo)

in streamlining the ST training pipeline. In 1997, AFSOC consolidated the disparate STSs' internal training programs under a newly-conceived ST Initial Familiarization Course (IFAM) to be centralized at Hurlburt Field under the 720th Special Tactics Group.

This February marks the 20th anniversary of IFAM's inception, but when the program began, it existed as nothing more than a meager assemblage of trailers in the back of the 23rd STS at Hurlburt. Despite its humble beginnings, a staff of only three military and civilian instructors capitalized on decades of personal and operational experience to construct a six-week training program that would standardize at least some of the core skills training of apprentice CCTs before pushing them out to their units. Those core skills focused on airfield reconnaissance, austere landing zone establishment, assault zone control, parachuting, land navigation and shooting.



Between 1997 and 2000, these few instructors put 238 CCTs through IFAM, but it did not solve the backlog at the STSs that still found difficulty fulfilling the remaining 40% of upgrade requirements for the apprentice operators they received. Unfortunately, it still took too long to produce combat-ready operators. Both IFAM and its predecessor required 15 months of 'in-residence' training at various schools, six months of standby status waiting on those school slots, and another 12-18 months of upgrade training at an active STS to become mission ready. The first true personnel crisis struck in 1999 when the manning at several squadrons fell to 40 percent and the established pipeline produced only seven CCTs for each squadron in the entire year. With demands on the STSs growing, a three-year pipeline that could produce so few operators per year was unsustainable. If left unchanged, ST's own training pipeline was its greatest existential threat.

By early 2000, ST leadership recognized that the manpower problem was the result of three fundamental issues: 1) attrition rates that approached 90 percent in the first quarter of the pipeline, 2) a three-year training timeline from Indoc to full mission qualification, and 3) unpredictable output of operational CCTs and inconsistent skills training between STSs. Advanced Skills Training (AST) was the ultimate product of deliberations on these issues. The new program sought to fundamentally reorganize the pipeline in a way

that prepared candidates for the rigors of special operations schools, rather than front-loading them for students fresh from basic training. More significantly, the program also absorbed all responsibility for the upgrade training of apprentice operators—this would not only make combat control's training more consistent and efficient, it would also allow the STSs to focus entirely on their operational duties.

That same year, AFSOC and Air Education and Training Command (AETC) decided the personnel shortage merited a drastic change: AST would be implemented almost immediately. Rather than completing just six weeks of IFAM, ST would place graduates of Combat Control School into a 12-month program that would accomplish combat diver school, military freefall school, advanced courses in satellite/ radio communication, airfield surveys, reconnaissance and surveillance, tactical-vehicle operations, airfield seizure, and a host of other skills. In order to better prepare candidates for the more grueling training that awaited them, initial candidates would no longer attend Indoc. Instead, they completed a twoweek selection course, Airborne, SERE, Air Traffic Control School, and CCS. This 'building-block' approach gave students a more robust academic and physical baseline before encountering advanced training. The hope was to reduce the attrition rate without compromising the competence of the force -- and the model proved to be an instant success. Within

two years, the pipeline was producing several dozen fullytrained operators a year and had already become home to 102 CCT and PJ trainees in various phases of their advanced workup. Those students were also performing more competently at advanced Special Operations Forces courses: in the five years leading up to AST, not a single ST operator had received the Honor Graduate title at combat dive school. By 2004, 22 had earned this distinction.

AST served as an incredible proof of concept, but it too was just another step towards the development of ST's greater goal of a consolidated and self-supported training squadron. Although the classroom trailers and shared resources of the 23rd STS served their purpose for AST, the number of instructors, growing sizes of student classes and increasing complexity of training tasks warranted a comparable investment in facilities. Construction of an autonomous training complex in the northwest corner of Hurlburt Field began in the winter of 2004. The complex would boast a large building with student and staff team rooms, administrative offices, multiple classrooms, an aquatic facility, and a combination indoor/outdoor workout space. The first class moved into AST's new home in 2008. In less than a year, AST would finally reach the tipping point in manning, physical infrastructure, and expertise to become an active squadron within the 24 SOW: the Special Tactics Training Squadron was born.

Today, the STTS conducts more than 1,400 military dives per year, more than the rest of AFSOC combined. It also boasts AFSOC's most active military freefall program, controlling 1,500 jumps a year. The squadron maintains a fleet of 131 standard vehicles, tactical vehicles, and watercraft, as well as \$700,000 of advanced communications equipment. Its weapons support section maintains 1,065 US Special Operations Command-tracked armaments and attachments while training 150 students a year on 11 different weapon systems and managing Hurlburt Field's busiest munitions account, processing 1.83 million rounds a year. In 2016, the STTS graduated 65 5-level CCTs, 9 Special Tactics Officers, 9 SOWTs, 16 ST PJs, and 10 ST TACPs-- all who were sent directly to operational line units, and some were downrange within a matter of months

Despite the drastic changes to its training pipeline in the last few decades, the modifications have been more quantitative than qualitative: the caliber of ST operators has remained remarkably consistent. As one of the founders and original instructors of the 1997 IFAM program, MSgt. (ret.) Ronald Childress, remarked, "Within 28 days of the attacks on 9/11 we had Combat Controllers crossing the mountains into Afghanistan and coordinating airstrikes on the enemy... the capability to perform that type of mission was not the result of a 28-day train up." Mr. Childress could not be more correct--the proficiency of ST training has not been derived from reactive changes in response to the threats of any moment in time. Instead, instruction has always been based on reinforcing core skills while teaching students to be air-minded, flexible, and capable of applying battle-tested capabilities to novel situations. One would be remiss to forget that the ST operators who assessed the landing zone for Desert One in 1981, parachuted into Grenada in 1983, saved the lives of wounded Rangers in Mogadishu in 1993, established the first landing zones after the Haiti and Fukushima disasters, and commit daily acts of heroism in Operations Freedom's Sentinel and Inherent Resolve all experienced very different training pipelines. By focusing on doing the basics well and encouraging continuous growth, modern ST training will continue to produce operators that honor the legacies and



capabilities on which this community was built and this nation deserves. This is the common thread that unifies Special Tactics' future with its past. As the current STTS Commander, can proudly attest, "Special Tactics training has evolved in an extraordinary way. Today, we are at the tip of the spear developing our next generations of leaders and operators. These elite war fighters are instrumental in the fight against tyranny and will continue to make an atomic impact against the enemy."



About the Author: Lt Col F. Damon. Friedman is the Commander of the Special Tactics Training Squadron, 24th Special Operations Wing, Air Force Special Operations Command, Hurlburt Field, FL. As the STTS commander, his unit trains special tactic forces for rapid global employment to enable airpower success any place across the spectrum of conflict in support of the joint force commander's objectives.

The authors would like to offer special thanks to those who provided information and feedback making this article possible, notably amongst them the STTS's current historian and first Director of Training for both IFAM and AST: MSgt (Ret) Ronald Childress as well as the first Commander of AST: Lt Col (Ret) Christopher Larkin.

The Case for COIN Studies

By Maj Ryan Olish

The United States Air Force has been on a war footing for 26 years since the opening of Operation Desert Shield. Our Airmen have been deploying and flying operationally so long that for many of us, it is all we have known while in uniform. Even as the rise of China and Russia signals a near-peer future threat, it is important that we as professionals know the details of our fights in Afghanistan and Africa; that is, counterinsurgency (COIN) operations. This is not to say that the US should not have a robust conventional air-to-air force. But by examining the theory behind COIN operations, a contemporary history of this warfare, and how we as airpower proponents can make COIN operations better, we can see why it is imperative that AFSOC Airmen in particular are well versed in COIN theory and strategy.

One of the most well-known COIN theorists of the 20th Century is David Galula, author of *Counterinsurgency Warfare: Theory and Practice*, his 1964 thesis at Harvard University. This largely experiential work covers his time fighting in France's Algerian War, where he put into practice theories he developed while observing the French civil-military effort in Indochina, as well as Mao Zedong's insurgency and conventional fight in China. He lays out a systematic method of thinking about the insurgent and how to fight him, much of which was incorporated into 2006 US Army Field Manual 3-24, *Counterinsurgency*. Galula then argues against this systematic approach with what he views is required to form a successful insurgency, with the type of government that is ripe to be toppled, and how to go about it. His theory defines counterinsurgent success as a "permanent isolation of the

insurgent from the population," isolation that is maintained by the population itself. The initial isolation is gained by an army that relies on a force acting as soldiers one minute, and as engineers, teachers or bureaucrats the next. Galula acknowledges that counterinsurgency is a political problem, with all else subordinated to maintaining the survival of the political regime. With these concepts, he essentially advocates for the "whole of government" approach to COIN. However, though he sees the need for a multi-pronged approach, Galula does not address aviation in a substantive manner, describing what type of aircraft a leader should want in "his" air force. Unfortunately, Galula is not the only COIN theorist to pay little mind to air power.

Galula was not the only professional from the Algerian War to carefully examine that conflict. Another great theorist of COIN is Roger Trinquier, also a French military officer. He wrote of his experiences in the Algerian War in *Modern War*: He advocated for an all-inclusive approach to COIN, stating that warfare itself is now an "an interlocking system of actions—political, economic, psychological, military." This is in essence an interagency, whole of government, approach. The diplomatic, informational, military, and economic model (DIME) works well in the COIN environment, as the populace is the DIME objective as theorized by both Galula and Trinquier. To acknowledge that the populace is the center of gravity is to state that the survival of the political regime cannot be solely a military solution.

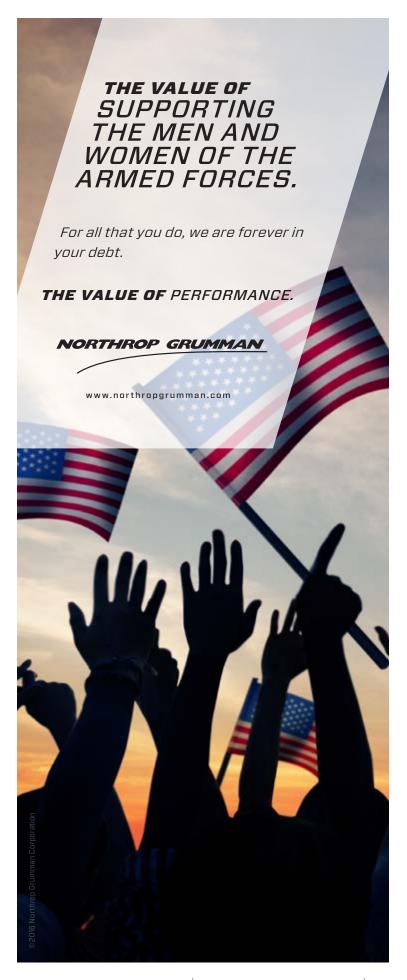
Trinquier offers three main principles of COIN. They are to separate the populace from the guerrillas, occupy those

zones formerly under guerrilla control, and then deny the guerrilla access to any support. Two of his principles articulate how to isolate the guerrillas from the populace in order to deny the insurgents their base of support. Trinquier observes that the "total dependence" the guerrilla has on the terrain and population is his weak point, allowing the COIN force to attack the guerrilla's center of gravity. The isolation becomes effective, as the insurgent's base of support erodes from beneath him.

Trinquier is more holistic than his contemporary Galula in how he addresses aviation utilized by a COIN force. He expounds on aviation when discussing his ideas of isolating guerrillas in their zones by having a quick reaction force (QRF) on standby, with helicopters as the means to move them into the zone of action, as well as air drops for resupplies. He also describes utilizing a sensor net to notify the alert QRFs guarding the "Morice Line," a physical and electronic fence along the Algerian-Tunisian border. The "Challe Plan" was developed by French Air Force Gen Maurice Challe, who was overall commander of the French COIN effort in Algeria from 1958-1960. It organized sector troops, airborne regiments, and aviation units to expedite infantry to intercept insurgent infiltrators. The Challe Plan proved to be a military success, but this was not enough to win the war. The insurgents defeated the French on the political front, and France lost Algeria. Had Gen Challe's comprehensive plan been in place earlier, working on the interlocking lines of effort that Trinquier describes, it is possible that the military "victory" could have beat the time horizon set by the political events.

Building on Trinquier and Galula, US Army doctrine writers came together in 2006 to write Field Manual 3-24, Counterinsurgency. As noted previously, Galula gave short shrift to aviation and the Army followed suit. FM 3-24 has only a five-page annex for air operations, Annex E, suggesting that air was an afterthought for the authors. Continuing with the air as an afterthought mentality, Annex E of FM 3-24 states that airpower will most often be used for transport and ISR. The relegation of aviation to an annex casts it more as a supporting element, rather than its own function in COIN.

Perhaps it was a missed opportunity, as security studies scholars addressed the topic prior to the production of FM 3-24. Dr. James Corum provided an excellent primer for air operations in COIN operations with his "The Air War in El Salvador" article for Small Wars Journal. He detailed how the insurgent Farabundo Martí National Liberation Front (FMLN) had destroyed the Salvadoran Air Force and was moving about the country in battalion-sized groups with complete freedom of movement. Then, with the provision of UH-1 Hueys, AC-47 Spookies, and AT-37 Dragonfly aircraft, the Salvadorans were able to



punish the FMLN and force them to the negotiating table. This was all done with a limitation of 55 US advisors allowed in El Salvador at any given time. Further, the presence of medical evacuation helicopters increased the fighting spirit and morale of the Salvadoran Army soldiers. With the knowledge that a wound would likely be treated quickly, Army esprit de corps rose. Increased heavy fighting in 1985 produced more casualties than years prior, but the Army suffered fewer deaths. Unfortunately, these lessons were not incorporated into FM 3-24

To overcome the seeming service parochialism in American COIN strategy and to offer a joint perspective, USAF Maj Gen Charles Dunlap penned a response to FM 3-24, entitled Shortchanging the Joint Fight?: An Airman's Assessment of FM 3-24 and the Case for Developing Truly Joint COIN Doctrine. Far from being a USAF "let's get in the fight" appeal to relevance, Gen Dunlap's study focuses on making the COIN effort as good as it can be. He points out that 3-24 is meant to be the entire operation, as it is entitled "Counterinsurgency," not "Landpower in Counterinsurgency," although the doctrine is often referred to as such. Gen Dunlap does not offer airpower as a panacea, but rather is arguing against the "sprinkle some air stuff on it" approach that is too common in military staffs. He notes that the three dimensional-fight requires a joint solution, and gives credit to FM 3-24's authors for including recommendations from non-governmental organizations (NGOs), "international organizations, academic experts, civilian agency representatives, and journalists," reflecting the interagency and DIME effort required in COIN. In recognizing this, Dunlap highlights the absence of an air expert in drafting

Gen Dunlap's paper expresses why we as Airmen should be knowledgeable about the terrestrial force's scheme of maneuver and doctrine. He laments the lack of "effective and articulate" advocates for airpower in COIN. It seems we Airmen have been victims of our own success in maintaining air superiority, with ground forces assuming we will not be challenged. This has resulted in the land component viewing the USAF as "adjunct to their operations." In order to contribute to joint doctrine, this case clearly illustrates that Airmen must be proactive contributors in its formulation and fluent in the various fields of military science.

Just after the release of FM 3-24, the Air Force published its own doctrine, Air Force Doctrine Document (AFDD) 2-3, *Irregular Warfare*. It included COIN axioms such as "legitimacy and influence are the main objectives" and "COIN is a protracted affair," though whether this can be communicated to policy makers and an American public that wants rapid results is questionable. Buttressing this effort, the Air Force released AFDD 3-2 in 2013, which was meant to be read along with Joint Publications (JP) 3-22, *Foreign Internal Defense*, JP 3-24, *Counterinsurgency Operations*, and JP 3-26, *Counterterrorism*. Gone were the "COIN Truths for Airmen," and included are more refined ideas concerning ISR and target development. However, JP 3-22's airpower section reads much like FM 3-24's Annex E: Airpower in Insurgency. Encompassed in Chapter VII, "Supporting Operations for

Counterinsurgency," are the usual uses for aircraft when supporting operations. Mobility, ISR, and precision strike, with consideration for strategic effects of an errant attack are discussed over several pages, but these ideas are not intertwined throughout the effort.

Undaunted, the Joint Special Operations University's Rick Newton recently published his dissertation from King's College, London entitled *Control Without Occupation*, a study of how to rely more on air assets in a COIN effort. Noting that airpower provides an asymmetric advantage during irregular warfare, Dr. Newton seizes on the concept that the counterinsurgent has what his opponent does not: control of the sky. Further, he stipulates that it is the non-kinetic effects that airpower can bring to bear that are often overlooked, but can have profound effects. This is the type of conceptualization that the Air Force needs to incorporate into doctrine to capitalize on our asymmetric capabilities, particularly while we have unquestioned air superiority.

Further, by formulating and knowing the doctrine, air forces can be designed to the right size and shape. As opposed to utilizing the most expensive weapons systems designed to survive a contested environment, clear air COIN doctrine can make the case for a high-low mix of aircraft, including more cost-efficient platforms such as the A-29 Super Tucano, an AC-235 Gunship, and lighter ISR systems. The net effect of utilizing such aircraft would be less money spent, lower maintenance requirements and costs, better loiter time (though sacrificing air refueling capability), and less wear and tear on our high-end major weapons systems.

Perhaps blunting Airmen's interest in this subject is its nebulous nature. COIN is vague, and as AFDD 3-2 notes, "operational effectiveness can be hard to measure." This can drive agents in the field to choose metrics for success that induce what analysts Leo Blanken and Jason Lapore call "pathological behavior" on their part. Anyone who has engaged in advisory operations can understand this. The desire to show some sort of progress is real, and so is the need for staffs to quantify said progress. Yet the technical nature of aviation and our desire for quantitative analysis makes it difficult to conceptualize qualitative COIN theory and its associated airpower. Further muddying the picture is the contrast of COIN's chaos with the typically clean nature of the aviation environment. That too may be driving Airmen away from the messiness of injecting air into doctrinal COIN.

We can illustrate the necessity of strategic airpower advocates in COIN by briefly dissecting the Afghanistan campaign. It started out as an unconventional warfare operation, with US Army Special Forces detachments and Central Intelligence agency teams supporting resistance against the Taliban government. The conflict quickly became conventional as more troops poured in to the country. Once Hamid Karzai was installed as the new head of state and the Taliban retreated to the mountains to conduct guerrilla warfare, the US-led coalition adopted a COIN mission. The intractability of this conflict has become clear, and as its duration passes 15 years, it demonstrates the USAF's doctrinal presumption that "COIN is a protracted affair." And yet airpower is being

applied mostly as "support-to" operations. Pakistani Col Irfan Ahmad postulates that focusing COIN air on "support-to" missions such as strike requires perfect intelligence. ISR and mobility are the indirect approach, but require political sensitivity in their use. Col Ahmad contends that the strategic effect of even the presence of air assets presents its own challenges in a COIN environment. Presently though, we have moved back to smaller units working by, with, and through the Afghans to achieve a lasting victory. Hopefully this reduced force is better able to promulgate our overall strategy through an economy of force in order to produce fruitful political results.

As the United States prepares for the defense of its global interests, it is prudent to consider the most common kind of warfare. Over the past century, major combat operations have been the exception, with most military engagements by US forces being some variety of small wars. We need to develop more focused doctrine for the Air Force beyond AFDD 3-2, fixing on how to apply airpower in any given stage of COIN. Stipulating how best to utilize airpower in this environment, to both tactical and strategic effect is imperative and will set the stage for better joint integration by providing a baseline for air-to-ground integration in the COIN environment.

Concurrently, the Air Force needs to populate Theater Special Operations Commands (TSOCs) and other appropriate staffs with COIN-savvy Airmen to ensure the totality of airpower is planned for in its most effective and proper roles. By being members of the staffs where operations are conceived, planned, and approved, proper coordination between the air and ground efforts can be achieved, with greater efficiency and effectiveness across the board. This will help to safeguard all concerned from inappropriate application of airpower, save our resources, as well as educate our joint brethren, improving our all-around performance

These two efforts will drive the final step. Ten years have passed since the publication of FM 3-24, and nearly four since JP 3-24, with many new lessons that can be incorporated. Air Force doctrine experts need to meet with US Army Training and Doctrine Command (TRADOC), US Marine Corps Combat Development Command (MCCDC), and other stakeholders to review JP 3-24 to improve how airpower can be nested in all phases of COIN operations and to create a threedimensional how-to guide for COIN. Through these processes, Airmen can help to continue to refine and improve our doctrine to advance our own performance, understand the strategic capabilities we possess, and better support terrestrial operations with our fellow warfighters.



About the Author: Maj Olish is a combat aviation advisor and Pilot. He is currently a student at the Naval Postgraduate School in Monterey, California.

The PEOPLE The AIRCRAFT The SPIRIT of the **AIR COMMANDO**

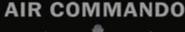
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We need your help to do that. We seek quality articles, well written, factually based, and reflecting your experiences living the special operations mission in all of its complexities. Submissions can be of any length, although 1500-3000 words would be an average suggestion. All articles will be edited as per the Air University Style and Author Guide (found online at www.aircommando.org under the Journal tab, and at the Hurlburt Field library).

Submit files electronically info@ aircommando.org. We use MS-Word. We also appreciate accompanying photos. Photos should be high resolution (300 dpi) and must indicate the source, have a release for use, and a brief description. If your submission is copyrighted, we will indicate that on the article.

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In the Family By Aaron B. Conner



Sergeant Major Bradly Conner

Good evening honored guests and truest friends of the Special Operations Warrior Foundation. It is with the greatest honor and humility that I stand here tonight as a speaker at this grand event.

My name is Aaron Conner and I am a very grateful recipient of the support that the SOWF community constantly offers children of fallen special operators. I am a college graduate from Samford University and the University of Alabama at Birmingham. I studied elementary and special education at Samford and studied military science while earning my Army commission from UAB. I am currently in my second year as a grad student at Beeson Divinity School and a lieutenant in the Army Reserves serving as a Chaplain Candidate. Tonight, I want to tell you what it means to be in the family of a special operator like my dad, Army Green Beret Sergeant Major Bradly Conner.

My father was killed in action in Iraq in 2007 after being hit with an Explosively Formed Projectile while leading a convoy of Green Berets. I was 14 years old when he was killed and yet somehow I felt like my 40th birthday was just around the corner. I, like many others in the SOWF community, soon found myself seeking to remember the ethos and spirit of my father. Questions on morality, maturity, manhood, and mortality would no longer be answered from the strong voice of our fathers. Yet from them, we inherited the deep passion for learning, and eventually we all found a place or person to give us the second best answer to the questions we sought. I looked into my father's extensive book collection to learn what ideas made him the man that he was.

Now, I could stand here all night and tell you about how his underlined and worn Bible has shown me my savior, how Wild at Heart has strengthened my masculinity despite a lack of a father figure, or how the Lord of the Rings has instilled in me an imagination only second to my sister's. Yet tonight I want to share with you an obscure piece that I found a year before going into college. After years of passing it by, I noticed a worn, red, three-ring binder, with many old numbered pages full of various texts in all fonts and sizes. These 340 pages were a collection of leadership material compiled by Brig Gen Herbert Lloyd in 1992 for Army leaders to have and to implement. As I thumbed through the pages I found an underlined phrase "that's the army in which I should like to fight". Naturally, I read the rest of the page to see what kind of Army my dad wanted to fight in. The quote came from COL Pierre Raspeguy who was a French Parachute Infantry commander during a conflict against Algerian guerrillas in the late 1950's. He said the following:

"Have you ever noticed, that in military history no regular army has ever been able to deal with the properly organized guerilla force? If we use the regular army in Algeria, it can only end in failure. I'd like France to have two armies: one for display with lovely guns, tanks, little soldiers, fanfare, staffs, distinguished and doddering generals, and dear little regimental officers who would be deeply concerned over the general's bowel movements or their colonel's piles; an army that would be shown for a modest fee on every fairground in the country.

The other would be the real one, composed entirely of young enthusiasts in camouflage battledress, who would not be put on display, but from whom the impossible efforts would be demanded and to whom all sorts of tricks would be taught. That's the army in which I should like to fight."

-- COL Pierre Raspeguy (10th Parachute Regiment)

I read this quote when I was 17 and yet I knew its message long before then. My father took great pride in being the

Quiet Professional instead of the average GI Joe. Every night before bed he would tuck us in and would ask me "Who am I?" I would always answer in the manner that I was first told, "You're a badass". My father, like the others now with him, took no joy in being publically displayed or concerned with the political side of the military. They became special operators because they were cut from a different cloth and sought to protect the world in the most effective way, far removed from the useless and the weak. True patriots and warriors to the core, these men conducted their lives in the same passionate manner in which they fought. They loved their brothers, their country, their family, and their God with all that was in them even as they died.

We who are left are deeply impacted by the ethos that coursed through the veins of our fallen fathers. The widows of these men will know more than anyone the utter depth of

Editor's note: COL Raspeguy is a fictional character in one of the best treatments of COIN, The Centurions, by Jean Larteguy. The book is a thinly veiled novel of the French experience in Algeria. The author later acknowledged that several of the characters are composites of actual serving officers, including Roger Trinquier (described in Maj Olish's article).

loneliness, the rage of unfairness, the devastating depression of a future destroyed, and the burden of living on when their hearts have been killed. Add to the mix of their personal hell, the responsibility for the wellbeing of three distinct, terrified, angry, selfish, devastated, orphaned children and you will have a slight idea of what it takes to be a Special Forces widow. Ironically and fortunately for us children, it is this series of unrelenting trials that elevates our moms to superhero status. Strength, honor, duty and tenacity are now taught to us by these hardened women and the lessons are reinforced by the phantom of our fathers.

We children of special operators seek excellence in all areas of our life to prove that our fathers were right. They were right to believe that they can make a difference even in the darkest places of the world. They were right to help other people even though their skin color, language, religion, or socio-economic status may be different than theirs. They were right to take the road less traveled and walk through the narrow gate, though it may have been grueling to find. They were right to believe that the constant pursuit of education is the key to success regardless of circumstance. They were right to keep hope alive despite impossible odds.

We honor our fathers by keeping that hope alive even though they are not. We honor them by achieving greatness in life, earning college degrees, taking on professions that benefit those who are in need, and guiding others to do the same. Like our fathers and mothers, we are not defeated by any challenge, hindered for a time perhaps, but never defeated. We know that this life is brief compared to the eternity that our fathers now enjoy and that they cheer us on from the great cloud of witnesses. With the constant support system of our SOWF community, our friends, our family and our faith, we will continue to do our fathers' work and liberate the oppressed in whatever vocation we choose to do in this life.

I will leave you all with the first entry in my father's leadership collection. The Ancient Athenian Oath contains within it the spirit of all our fathers and of us, those still here in the fight.

"I will not disgrace the soldier's arms, nor abandon the comrade who stands at my side; but whether alone or with many, I will fight to defend things sacred and profane. I will hand down my country not lessened, but larger and better than when I received it."

Indeed, our fathers handed down a dark and dangerous world. Yet they have also handed down their torch with which we take our place together on the frontlines of this present darkness to do battle on behalf of those still oppressed."

Thank you all, de oppresso liber and may God bless you.



About the Author: Aaron B. Conner, 2LT Chaplain Candidate addressed attendees of the Special Operations Warrior Foundation dinner on Nov 16, 2016 and has given his persmission to publish his comments.







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