

DIGEST

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July-September 2018 Volume 6/Issue 3

Leaders and Managers

Force Protection and the Aviation Task Force

The Importance of AVCATT in the High-Intensity Fight

FM 3.0 OPERATIONS

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July-September 2018



Commanding General, USAACE MG William K. Gayler

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By Order of the Secretary of the Army: Official:

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About the Cover:

An aircrew of the New York Army National Guard's 3rd Battalion, 142nd Aviation airlifts one of a dozen 105 mm howitzers to the 10th Mountain Division's Alpha Battery, 2nd Battalion, 15th Field Artillery Regiment during an exercise on May 4, 2017. (U.S. Army National Guard photo by MSG Raymond Drumsta, 42nd Infantry Division)

The Comman

Over the past two issues of Aviation Digest, the conversation has focused on aspects of expeditionary capability and Mission Command in Large-Scale Combat Operation (LSCO) environments. As the discussion continues, it remains crucial to understand the scope and depth of the preparation needed for LSCO. Due to the complexity of this mission set and the relative lack of



expertise across the force in LSCO, it is not a topic we can skim the surface of and quickly grasp. Our success in meeting all aspects of this fight is a matter of collectively understanding the capabilities Army Aviation must deliver to the Joint Force, followed by rigorous preparation to build proficiency and combat readiness. One useful method to help build collective understanding across the force regarding this shift to LSCO is to review previous instances of doctrinal pivots.

Aviation's role within the framework of future warfare requires an understanding of our past in order to better calibrate the trajectory of our path forward. This particular issue of **Aviation Digest** features two key articles that deserve revisiting to help better understand the challenges of doctrinal change and implementation.

The first article, FM 100-5, Operations: A Paradigm for Adaption, by then LTC Michael Rampy, focuses on the doctrinal shift from potential conflict with a nearpeer/peer threat, to an environment characterized by non-state actors and asymmetric threats. This article is significant in that it reintroduces key observations from our Army's recent past, where we collectively and dramatically adjusted our doctrine, to posture the force to succeed in a new operational environment. Additionally, we have included The Return of U.S. Army Field Manual 3-0, Operations, by LTG Mike Lundy and COL Rich Creed. With FM 3-0 quickly approaching its 1-year publication anniversary, it felt prescient to revisit this article in parallel with the discussion of past challenges associated with doctrinal evolution. Our intent is to draw helpful parallels between the two different, but comparable efforts as we pursue increased understanding of this doctrinal pivot within our formations and across Army Aviation.

I encourage you to spend some time digesting both articles, and I further encourage you to provide your ideas and perspectives on this matter. The branch significantly values your feedback and participation within the confines of this professional discussion in order to advance the direction of Army Aviation as a whole.

As always, Above the Best!

William K. Gayler Major General, USA Commanding



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January-March 2019 issue articles due December 1, 2018 (magazine published on or about February 15, 2019)

April-June 2019 issue articles due March 1, 2019 (magazine published on or about May 15, 2019)

July-September 2019 issue articles due June 1, 2019 (magazine published on or about August 15, 2019)

Authors are asked to observe posted deadlines to ensure the Aviation Digest staff has adequate time to receive, edit, and layout materials for publication.

Aviation Maintenance Automation Specialists in Army Aviation

By Mr. Charles T. Brown

IN THE PAST 20 YEARS, THE ARMY AVIATION ENTERPRISE HAS SEEN A RAPID GROWTH IN THE FIELDING OF INFORMATION SYSTEMS AND SOFTWARE TO ASSIST MAINTAINERS IN EFFECTIVELY ACCOMPLISHING THEIR MISSION OF BUILDING AND MAINTAINING COMBAT POWER. While these systems allow Aviation organizations at the field level-from line units to support companies—work more efficiently to maximize productivity, the systems themselves have become an enormous burden—consuming both time and manpower—to maintain and operate correctly.



THESE SYSTEMS COME IN THE FORM OF:

- * Unit Level Logistics System Aviation Enhanced (ULLS-A[E])
- * Aircraft Note Book (ACN)
- * Aircraft Weight and Balance System (AWBS)
- * Integrated Vehicle Health Management System (IVHMS)
- * Modernized Signal Processing Unit (MSPU)
- * Interactive Electronic Technical Manual (IETM)
- * Federal Logistics (FEDLOG)
- * Joint Technical Data Integration (JTDI)

The fielding and implementation has come with a patchwork of support systems to install, configure, and utilize these support systems and programs. In an effort to assist the maintainer, the Army has attempted to address support issues with Webbased and telephonic help desks, civilian contractors, and mobile training teams. This approach has failed to effectively support and maintain the myriad of automation systems Soldiers rely on a daily basis to accomplish their mission of fixing and maintaining aircraft. It is time that the Army properly resource this problem with not a patch or a contractor, but a permanent solution: a Soldier.

I've said this for years...it's crazy having units rely on the probability that there may be a computer-smart SPC hanging out in the formation.

Bobby Miller CW3 (Ret.), 151 Aviation Tech Warrant (Personal communication, 10 March 2018)

To find an adequate solution to the Army's support requirements, we need to look no further than our sister service: the U.S. Marine Corps. In Marine Corps Aviation, leaders recognized the need for their Marines to be able to maintain their Aviation automation systems and created a Military Occupational Specialty (MOS) to do so. The Marine Corpsenlisted MOS 6046, Aviation Maintenance Data Specialist, maintains aircraft logbooks; naval aircraft

maintenance publications and files; and prepare reports, logs records, directives, and correspondence within aircraft maintenance and repair activities. Initial formal training is provided at the Aviation Maintenance Administration Course, Naval Air Station, Meridian, Mississippi. Additionally, trainees receive formal school training at Optimized Naval Aviation Logistic Management Information System School in Pensacola, Florida. Here, trainees learn Information System administration methods and Database Management traits, as well as trend interpretation for developing statistical process control methods in support of Aviation information and readiness reporting requirements. These methods, traits, and interpretation skills aid maintenance supervisors and logisticians in the performance of their assigned tasks.

Not only do the 6046 Aviation Maintenance Data Specialists maintain their automated systems, they also provide detailed analytics to help maintenance leaders identify trends in aircraft faults, man-hour expenditures, operation readiness, and numerous other Aviation maintenance measures of effectiveness (MOEs).

U.S. Army Aviation units desperately need the capability to maintain their Aviation maintenance computer hardware, operating systems, networking systems, and maintenance systems. Instead of selecting a Soldier who is good at computers and networking and taking him or

We are entirely dependent on multiple systems made by multiple organizations that do not communicate with one another. I have been in units with brigadelevel civilian support reps and ones with no representative at all.

Eric Curfman SFC Apache Repairer (Personal communication, 11 March 2018)

her away from their primary duty of fixing aircraft, or utilizing the Soldier assigned to an ad hoc position (i.e., 15H in an Apache battalion or squadron) as the database administrator additional duty Soldier, Army Aviation should create an Aviation Maintenance Automation Specialist's MOS or an Additional Skill Identifier (ASI). With the proper training, which could be mirrored after the U.S.M.C. program of instruction, U.S. Army Aviation Soldiers would be more efficient and effective at building and maintaining combat power.

When you have tech issues on multiple Miltopes [VT Miltope is a company of VT Systems), workstations, etc., that only slows down production, flights, phase maintenance etc. The faster you can have issues fixed in-house and not outsource to a civilian repor Tobyhanna [Army Depot) for advice/walk-through procedures, the more efficient and self-sustaining your program will be.

Judd Culp CW3, 151 Aviation Tech Warrant (Personal communication 10 March 2018)

Mr. Charles Brown is a retired CW3 151 Aviation Maintenance Technician. He is currently an Instructor at the Aviation Maintenance Officer Course (AMOC) at Fort Rucker, Alabama. His previous assignment included PC Officer, D Company, 1-101st Aviation Regiment, Fort Campbell, Kentucky. Mr. Brown has deployed three times in support of Operation Iraqi Freedom and Operation Enduring Freedom. He has more than 25 years of Army Aviation Maintenance Experience.

LEADERS AND MANGERS

By CW4 Jeremie Zabko

Throughout our military careers, we are told that we are all leaders, and we must enhance our abilities to become even greater leaders. We learn the plethora of qualities, attributes, traits, and competencies that all leaders should have. Various assignments give us the opportunity to develop leadership skills that come from experience, from tacit knowledge. However, we are never directly taught how to manage and because of this, there is a common misunderstanding of the terms leader and manager. To be the leader we all aspire to become, we must understand these terms, the skills required, and how to develop those skills.

First, we must determine what it means to be a leader. A common belief is that performing the duties as the senior position of a team, squad, platoon, company, battalion, etc., makes you a "leader" by default. Field Manual 3-0 hints to this when it states "Leaders, by virtue of assumed role or responsibility..." (Department of the Army [DA], 2017). In other words, a duty position (Commander, platoon sergeant, etc.) may require one to execute leadership skills in the role of a manager, but the assignment to this position is not what makes a person a leader. This is

where the correct definition of the terms leader vs. leadership skills is required.

FIRST, someone who is a leader has a higher purpose in life and answers to a higher ethical and/or moral code. Great leaders can convey an attainable and achievable vision to their Soldiers. This vision, accompanied with a mission statement and goals, inspires subordinates, builds the team, and maximizes productivity

Few people are leaders; however, many are in leadership positions.

while accomplishing the higher command's intent. Conducting operations under the higher headquarters plan and following orders does not identify you as a leader. Instead, by executing the plan and following orders, you are exercising leadership skills in the capacity of a manager. A key point here is that creating a vision for your organization differs from inspiring your organization to believe and work toward that vision. I will define the difference between manager and leaders as such: A manager motivates those around him to accomplish the mission; whereas, a leader motivates those around him to accomplish a mission they did not think was possible.

SECOND, we must understand the difference between leadership skills and being a leader. Leadership skills allow one to organize and inspire another to carry out an objective, while a leader influences others and is inspirational. Teaching others skills, values, and beliefs is a leadership skill. Being a model of what is right is at the very root of a leader. Other differences of leadership skills vs. being a leader may include solving problems vs. recognizing opportunities or casting a vision vs. being a visionary. The bottom line is that becoming a leader is an ability developed through learned experiences while the creation of leadership skills is developed from explicit knowledge. A leader is a state of being; not a duty position. This point is so important that it must be repeated: being a leader is not a duty position but a state of being.

Army Field Manual (FM) 6-22 states that the Army definition of leadership is "...the process of influencing people by providing purpose, direction, and motivation while operating to accomplish the mission and improve the organization" (DA, 2015), but what does that mean to you? Having facilitated many formal leadership classes to junior and field grade warrant officers, I can attest that almost everyone answers this question in the same way. They cite the key buzzwords, traits, and qualities; they all believe they are leaders; and they believe that they are all experts in the art of leadership. I often hear that Soldiers all entered the military to be leaders. The question then, is this: were you a leader before you entered the service and if not, what was the defining moment when you believe you became one?

The professional leader knows when and how to deviate from policies and procedures while ethically and morally accomplishing the overall mission. A leader can recognize an opportunity during the mission and execute a change without waiting for specific orders. To deviate takes more than understanding one's own part in the mission. The ability to recognize battlefield opportunities requires a deep understanding of the mission and all of its variables (competence). It demands thinking critically, recognizing opportunities, and adapting in the absence of command guidance (commitment). Further, it takes courage to do what is right, even when you know your superior may disapprove (character). Translating this new intent to your Soldiers and having them willingly (not through coercion or pressure) follow is being a leader. This is the

Few people are leaders; however, many are in leadership positions. The Army definition of leadership is an end state of the application of leadership skills. The leadership buzzwords mentioned earlier are byproducts of how a leader operates. A manager must also understand the mission and operating environment to

ship.

tion, and motivation. Managers can be trustworthy, smart (at a particular skill set), empathetic, loyal, and physically fit. Thus, when executing the vision of a Commander, you are likely acting as a manager and not as a leader, regardless of position, rank, and time in service.

Army doctrine does not discuss what it means to be a manager. In fact, both Army Doctrine Publication (ADP) 6-22 (DA, 2012a) and Army Doctrine Reference Publication (ADRP) 6-22 (DA, 2012b), both titled "Army Leadership," omit the term "manager." The term "manager" is first mentioned in Field Manual 6-22, "Leader Development" (DA, 2006). The definition of "management" is not found in military doctrine. This manager/management oversight could be the reason for the systemic confusion, misuse, and overreliance on the terms leadership and leader. To play devil's advocate, the term "war" is not defined either.

Perhaps because of the lack of doctrine covering management, the purpose, direction, and motivation mentioned in the Army definition of leaderprovide subordinates with purpose, direcpractice of management is inherently easy to master. I argue that since major universities have Master's programs dedicated to enhance management abilities that this assumption is more than likely to be a gross oversight by the Army. Soldiers are excellent executers of tasks; however, they often lack the ability to delegate, coordinate, and share responsibility. Soldiers of all ranks are managers in some capacity or form to include company, battalion, and brigade Commanders who serve in the capacity of middle managers executing the vision and orders of the officers appointed over them.

Since the Army has not defined management, I will state the (widely accepted) basic functions of management as described by American organizational theorists, Harold Koontz and Cyril O'Donnell (1968): planning, organizing, staffing, directing, and controlling. Successful managers must coordinate all of these functions to achieve the command's goals. To become a great leader you need not be an effective manger; however, to be a great manger you must understand how to lead. Managers execute tasks such as mentoring, counseling, and supervising subordinates. It is in management positions where one develops leadership skills and abilities. All Soldiers will serve in management positions regardless of rank, military occupational

specialty, and duty position. All Soldiers have the opportunity to become a great manager and leader.

Not all Soldiers receive training in management, at least not in all the aspects that apply. So, the individual Soldier must self-educate until the military creates doctrine and adjusts military schooling to address this capability gap. To become a better leader and enhance the learning process, we must read. Reading is the foundation of any successful leader, as those who read learn from the mistakes of others. The reader thinks critically and analyzes the situation by asking him or herself "what would I have done?" People who read are inherently better equipped to tackle new and complex problems. Many studies have illustrated how much time successful leaders devote each day to reading. Of the several biographies on past Generals that I have read, these leaders have all devoted an exorbitant amount of time reading before deploying to a new operational area. Yet, so many Soldiers scoff at reading but defend their status as a subject matter expert.

READ! Read the lessons learned by others. Read the management and leadership books on the Army Chief of Staff's reading list.* Educate yourself to become a better manager and when that does not work, seek civilian education. Understand that leadership and management abilities are not something that will happen overnight, and understand that the requirement to be a "leader" may play a much smaller part of your operational role than you

Are You a Leader or a Manager?

leave work early every day, or are looking to leave the Army a better place? When is the last time you read anything to enhance yourself as a professional?

CW4 Jeremie Zabko is currently the AWOAC course chief at Fort Rucker, Alabama. Jeremie has served in positions ranging from the company to division level, as both a standardization pilot and tactical operations officer. He received the order of St. Michael in 2010; and in 2015, he became the Army Tactical Operations Officer of the Year. Placing a high level of importance on professionalism and self-growth, Jeremie has been a distinguished or honor graduate in every professional military education course he has attended. His civilian education includes graduating magna cum laude with a baccalaureate of science and summa cum laude with a Master's degree in management focusing on integrated logistics.

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* https://history.army.mil/html/ Ask yourself if you are the hard books/105/105-1-1/ right over the easy wrong type index.html of person. Are you the person who is trying to build a better mousetrap, or are you a status quo Soldier? If the mousetrap is effective, are you managing the placement (not all systems need improvement)? Do you strive to Photo by SGT Thomas X. Crough. USARCENT PAO **Back to Table** of Contents



Article photos provided by CPT Miller's greatgrandson Mr. Byron Derringer

POSTHUMOUS DISTINGUISHED FLYING CROSS RECIPIENT CHANGES WORLD WAR 1 HISTORY

By MAJ Jessica S. Armstrong, Mr. Bruce Huffman, and Mr. Chuck Sweeney

June 14, 2017 highlights two historical aspects of Captain James Ely Miller's valor and heroism; Miller posthumously received the first Distinguished Flying Cross (DFC) ever being presented to a recipient from World War I, for which the award was originally intended. Addition-

ally, Miller, by his sacrifice, became the first U.S. airman, eligible for the Purple Heart, to die in air-to-air combat against any enemy, while serving in the Armed Forces of the United States.

This hero lost his life in the fight for

humanity and civilization. He unhesitatingly and fearlessly exposed himself to enemy planes and heroically volunteered his efforts to defend this great nation.

Captain James Ely Miller was born in New York City on March 14, 1883, to



a prominent merchant and banking family. He attended Yale University as a legacy, where he participated in the University crew and football teams. After graduating from Yale in 1904, Captain Miller began working for the Knickerbocker Trust Company, one of the largest banks in American history in the 1900s, serving as a secretary of the company. In 1912, Captain Miller took over as vice-president of the Columbia Trust Company.

Captain Miller volunteered for service to fight in World War I, shortly before the United States declared war with Germany. He learned to fly in 1915 at the Plattsburg, New York Training Camp, successively qualifying as a pilot, fighter, and an instructor. Shortly thereafter, Captain Miller helped organize the First Airplane Company of New York National Guard, which was commanded by Colonel Raynal C. Bolling (the first high-ranking officer of the U.S. Army to be killed in combat in World War I). Captain Miller was mustered into federal service on July 14, 1916.

On July 23, 1917, Captain Miller re-

ceived orders to deploy overseas to command the 1st Reserve Aero Squadron. There, he joined General John J. Pershing's staff, whom led the American Expeditionary Force in Paris, France. Soon after, in August 1917, Colonel Bolling appointed Captain Miller as the first Commander of the 3rd Aviation Instruction Center (3rd AIC) in Issoudun, France. The 3rd AIC was one of the largest most important flight training centers during World War I. Captain Miller was charged with the creating, building, and organizing of the American flying school and was directed to have the school established in 60 days, which he successfully accomplished.

After standing up Issoudun training center, Captain Miller went to the French Aerial Gunnery School in Cazaux and took a course to qualify himself for aerial combat.

A unit trained at Issoudun training center, the 95th Aero Squadron was formed on August 20, 1917 at Kelly Field, Texas. The squadron shipped out to England and was then sent to France. There, the 95th Aero Squadron began training at the Issoudun training center on November 15, 1917. On February 20, 1918, Major Bert M. Atkinson, Commander of the 1st Pursuit Organization and Training Center, selected Captain Miller to command the 95th Aero Squadron.

On March 8, 1918, Captain Miller and the 95th Aero Squadron were installed at its quarters in Villeneuveles-Vertus, France; 20 miles from the German enemy-front, awaiting the arrival of fighting planes from Paris. While in Paris, Miller ran into the son of a factory worker and asked him to be his engineering officer. The young man was an Army staff driver who agreed to Miller's request on the condition that he could take flight training. Miller introduced him into his social circle of friends, thereby being the first to open the doors to aviation for every man. Miller taught the young man to fly after Colonel Billy Mitchell was

persuaded to release him from his chauffeur duties. The young officer's name was Eddie Rickenbacker, who is considered America's most successful fighter ace of World War

On March 9, the 95th Aero Squadron became operational. On the afternoon of that same day, Captain Miller, Major Davenport Johnson, and Major M.F. Harmon left for the first offensive patrol. Very early in the patrol, Major Harmon was forced to drop out with motor trouble, but Major Johnson and Captain Miller continued on past Soissons and Reims, into Germany territory. At Juvincourt-et-Damary, they were attacked by two German biplanes at an altitude of 2 miles. They beat off the attack and continued westward above Corbeny. There, they were attacked again by two German fighting planes. Major Johnson's machine gun jammed and he abandoned the fight, leaving Captain Miller on his own. Outnumbered and alone, Captain Miller fired numerous rounds but took on enemy fire and crashed in the Champagne defensive sector that same day, March 9, 1918. Several accounts state the German pilot that took Captain Miller down was a German Intelligence Officer. The German Army captured Captain Miller, where he succumbed to his injuries.

Captain Miller was killed in action on March 9, 1918, in the Champagne defensive sector of France. He was buried in the American Cemetery in Seringes-et-Nesles, Aisne, France.

Captain Miller's death earned him the title as the first American Aviator killed in combat during World War I. In a letter written by Major Bert M. Atkinson to Captain Miller's wife, Gladys Miller, Major Atkinson recommended Captain Miller for a Military Cross award.

Captain Miller's bravery and selflessness during his March 9, 1918 aerial flight is clearly described in the DFCS formal citation accompanying his posthumous award.

THE PRESIDENT OF THE UNITED STATES TAKES PLEASURE IN PRESENTING THE DISTIN-GUISHED FLYING CROSS TO CAPTAIN JAMES E. MILLER FOR HEROISM WHILE PARTICIPATING IN AERIAL FLIGHT ON 9 MARCH 1918, WHILE SERVING AS THE COMMANDER OF THE 95TH AERO SQUADRON, PARTICIPATING IN THE FIRST AMERICAN EXPEDITIONARY FORCES AER-IAL PATROL OVER ENEMY TERRITORY. ON THIS PATROL, HE AND A WINGMAN ENGAGED GERMAN BIPLANES ON TWO SEPARATE OCCASIONS. DURING THE FIRST ENCOUNTER, CAPTAIN MILLER AND HIS WINGMAN FORCED THE ENEMY TO RETREAT. CONTINUING ON THEIR PATROL, THEY WERE ATTACKED BY ANOTHER GROUP OF GERMAN BIPLANES. IN THE COURSE OF THIS ENGAGEMENT, CAPTAIN MILLER FOUND HIMSELF FACING THE EN-EMY ALONE AFTER HIS WINGMAN, WITH HIS GUNS JAMMED, WITHDREW FROM THE DOG-FIGHT. CAPTAIN MILLER CONTINUED TO ATTACK THE TWO GERMAN BIPLANES, FEAR-

LESSLY EXPOSING HIMSELF TO THE ENEMY UNTIL HIS OWN AIRCRAFT WAS SEVERELY DAMAGED AND DOWNED BEHIND THE GERMAN LINES WHERE HE SUCCUMBED TO HIS INJURIES. CAPTAIN MILLER'S AC-TIONS ARE IN KEEPING WITH THE HIGH-EST TRADITIONS OF THE MILITARY SER-VICE AND REFLECT GREAT CREDIT UPON HIMSELF, THE UNITED STATES ARMY AIR SERVICES AND THE AMERICAN EXPEDI-TIONARY FORCES. (DFCS, 2017B)



In 2017, Major Armstrong was selected to serve as the Assistant Executive Officer for the Congressional Legislative Liaison, Major General L. Richardson. Currently, Major Armstrong serves as a Congressional Budget Liaison. Major Armstrong received her Bachelor of Arts Degree in Business (2004) from the University of Colorado in Colorado Springs, her Master of Arts Degree in Human Resources (2012) from Webster's University, and her Master of Political Management in Legislative Affairs (2016) from George Washington University. Major Armstrong's awards and decorations include the Bronze Star Medal, the Meritorious Service Medal (1 Oak Leaf Cluster), the Army Commendation Medal (2 Oak Leaf Clusters), the Army Achievement Medal (1 Oak Leaf Clusters), the National Defense Service Medal, the Afghanistan Campaign Medal (2), the Global War on Terrorism Service Medal, the Army Service Ribbon, the Overseas Service Medal (2), the NATO Medal, and the Meritorious Unit Award.

Mr. Bruce Huffman is Chairman of the Board, the Distinguished Flying Cross Society, San Diego, California.

Mr. Chuck Sweeney is President and Chief Executive Officer of the Distinguished Flying Cross Society, San Diego, California.

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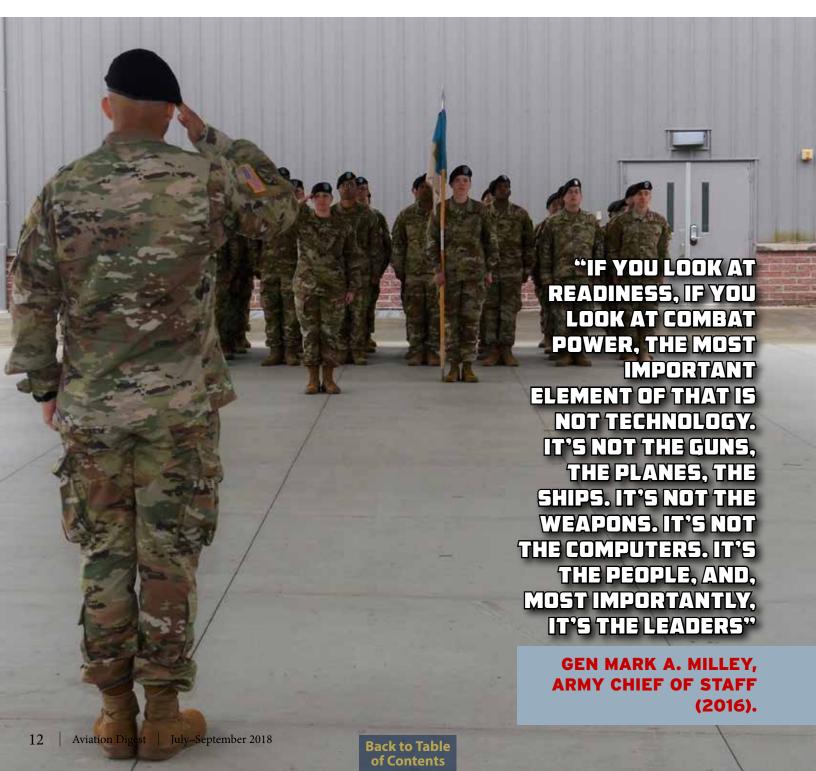
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Mr. Byron Derringer, great-grandson of Captain James Ely Miller, would like to thank Major Jessica Armstrong, who was instrumental in Captain Miller receiving this posthumous award, as well as Mr. Bruce Huffman and Mr. Chuck Sweeney of the Distinguished Flying Cross Society.

INVESTING IN JUNIOR-LEADERS:

PRIORITIZING AIR MISSION COMMANDER DEVELOPMENT

By CPT Kyle Amonson



OBSERVATION_

In today's highly complex and contested operational environments (OE), U.S. Army Aviation can no longer afford the luxury of leaving Air Mission Commander (AMC) training for Aviation lieutenants to luck, timing, and opportunity based on individual unit's interpretations of Training Circular (TC) 3-04.11, Commander's Aviation Training and Standardization Program. This article will discuss the role junior-officers need to be prepared to fill to enable disciplined initiative through mission command in a decisive action training environment (DATE). This article aims to provide solutions to the question of: How are we setting up our platoon leaders for success as aviation leaders in echelon, within a DATE? Additionally, it will discuss how the Army Aviation Center of Excellence can leverage its pre-existing systems and infrastructure to ensure that all lieutenants understand the expectations of platoon tactical employment while serving as platoon leaders, to fulfill the end state of eventually developing competent and lethal company commanders capable of conducting synchronized company operations in a DATE.

INSIGHT_

The Commander's Aviation Training and Standardization Program states that "the Aircrew Training Program (ATP) Commander will establish an AMC training and certification program" (Department of the Army [DA], 2016). A recurring trend, noted by the Directorate of Evaluation and Standardization (DES), has consistently recorded AMC training and certification programs as either weak, ineffective, or nonexistent throughout the operational aviation force (Lent, 2016). Additionally, (DES) has noted that crew member training records depict Flight Lead, Pilot in Command (PC), and AMC checkrides simultaneously conducted in the same flight for aviators across the force. These positions have very distinct roles and responsibilities that need to be specifically trained and mentored. The Aviation

branch should emphasize deliberate AMC training programs to specifically ensure that platoon leaders have the opportunity to train to lead their appropriate echelon, further ensuring their future success as company commanders.

LESSONS LEARNED

"IT [LEADER DEVELOP-**MENTI STRIKES ME AS SUCH A RICH AND REL-EVANT THEME, AS THE ARMY CURRENTLY OPER-ATES IN VERY UNCERTAIN** TIMES, RELYING HEAVILY **ON LEADERS. ESPECIALLY JUNIOR LEADERS, TO GUIDE OUR DAILY OPERA-**TIONS...THE OUESTION WE **MUST ASK OURSELVES** IS. "ARE WE DEVELOPING **OUR LEADERS TO MEET** THE RIGOR OF THE ARMY MISSION?" MG William K. **Gayler (2017)**

We are not sufficiently developing our junior leaders and setting the conditions for success to enable their tactical application and employment as platoon-level AMCs. Our transitional OE requires Army Aviation to prepare to face its most dangerous course of action: largescale combat operations against a highly lethal, near-peer/peer, radar threat with advanced technologies and precision long-range fires. This multi-domain environment demands different capabilities of our fighting force to ensure success on all echelons. While the operational force, across all branches, is conducting the doctrinal shift from counterinsurgency (COIN) operations to a decisive action training environment, it is necessary to thoroughly analyze which factors of our aircrew training program need to be adjusted to meet the requirements of the new OE. As a whole, our operational aviation force understands the doctrinal shift requiring tactics that can successfully oppose a radar threat and integrated air defense systems in an anti-access area denial scenario. However, have we overlooked the leader development aspect of this environmental shift that ensures our commissioned aviators can truly execute, as TC 3-O4.11 states, "Aviation leaders must be proficient and capable of leading their formations at echelon" (DA, 2016b)? Are we, as Aviation leaders, truly ensuring we instill the requisite level of technical expertise needed to bear for the tactical problems of the future tactical landscape?

IMPLICATIONS_____

"OVER THE COURSE OF THE PAST 14 YEARS OF **COUNTER-INSURGENCY** (COIN) CONFLICTS, THE **TITLE AIR MISSION COM-MANDER (AMC) HAS COME** TO MEAN THE FOLLOWING: THE SENIOR AVIATOR IN THE FLIGHT WHO DETER-**MINES WHEN AND WHERE TO GET FUEL. HOW MUCH** STATION TIME IS AVAIL-**ABLE, ROUTES TO USE,** AND TACTICS FOR ENGAG-ING TARGETS" CPT(P) James R. Antonides (Army Aviation

Magazine, 2016).

While the Aviation branch is demonstrating that success is not only our personal transition to DATE, but also through demonstrating decisive action tactics to effectively "sell" our new missions in support of the ground force, we are lagging behind on the transition to enable empowered decentralized mission command from our junior-leaders in this environment. In this environment, platoon leaders practice a leadership style more closely aligned with traditional roles of combat arms maneuver-based platoon leaders. Like any other combat arms branch, this leadership is not without mentorship derived from senior aviators in Aviation, both Warrant and Commissioned. Effectively, we need to allow our platoon leaders the opportunity to "sink or swim" as leaders of their aviation platoons. This can be accomplished through deliberate AMC training programs that begin in the U.S. Army Training and Doctrine Command (TRADOC) and progress to operational units, paired with trust and mentorship from senior Aviation advisors. Additionally, it can be addressed though doctrine, training, and leadership and education.

(1) DOCTRINE

"CONTINUED PROFES-SIONAL DEVELOPMENT OF **AVIATION SKILLS SHOULD LEAD TO SELECTION AS AN** AMC. THE AMC IS CRITICAL **TO MISSION EXECUTION** IN THE COMPLEX OE. ONLY BY DEVELOPING SKILLED **AVIATION PROFESSION-**ALS THAT UNDERSTAND THE CAPABILITIES AND THE RISKS OF ARMY AVIA-**TION OPERATIONS, CAN** THE ARMY TRAIN LEAD-**ERS AND TRAINERS THAT** THIS DEMANDING PRO-FESSION REQUIRES"-commander's Aviation Training and **Standardization Program Train**ing Circular (DA, 2016b)

As our branch transitions into 2018, our doctrine is completing the realignment of tactics and operational procedures to provide guidance in a

decisive action environment. Our Combat Training Centers (CTCs) have addressed and enforced the effective employment of conventional Aviation as a maneuver asset, utilizing the correct corresponding air coordination measures as a vital member of the combined arms team. One of the key changes noted in the introduction of TC 3-04.11 (2016) is the addition of 6000-series tasks. The recognition of this subset of collective unit training by the Directorate of Training and Doctrine (DOTD) marks the transition to the importance of echelon training for company level leaders within Aviation units. As with any other element of the aircrew training program, if it is not deliberately adhered to and implemented, it will fall by the wayside in lieu of the multitude of other competing requirements. As emphasized by DOTD and our doctrine, AMC development is a direct investment in the future of Army Aviation. We have entrusted Human Resources Command to send us the right personnel for this job, now it is up to us to ensure tactical leader development is on the forefront of what is arguably the most complex and technical branch in the Army.

Any aviator who has attended a professional Aviation course during the past 12 months has had the "this isn't COIN anymore" concept beaten to death. What is still important is that we prioritize the time to mentor junior-leaders on their roles within this new environment. Infantry and armor platoon leaders are trusted to lead their platoons,

make life and death decisions based on their limited tactical knowledge, and exercise decentralized and empowered mission command in concert with their platoon-level enlisted advisors. We need to create the environment, with scaled risk, that provides the opportunity for junior-leaders to progress as not just leaders, but Aviation commanders.

I acknowledge that becoming a proficient PC in your designated airframe is a top priority. However, if we choose the easy answer of consistently assigning the senior warrant officer in the flight to serve as the AMC, we do not provide our platoon leaders the opportunity to grow. That is neither justice in training to the junior officer nor justice to the senior warrant officer. If we do not allow platoon leaders the opportunity to grow as Aviation leaders at the platoon echelon, they will not be effective at leading company elements. As they rotate into broadening assignments after 12-18 months of platoon leader and 12-18 months of command time, the perishability of aviator skills will provide future challenges in ensuring our battalion level Aviation leaders are capable AMCs at echelon.

(2) TRAINING___

"U.S. ARMY EUROPE IS A LEADERSHIP LABORATO-RY THAT EMPOWERS JUNIOR LEADERS TO THRIVE IN A COMPLEX OPERATING ENVIRONMENT. THESE



LEADERS ARE EXPECTED TO OPERATE IN AN ENVIRONMENT OF DISTRIBUTED OPERATIONS—OFTEN SERVING AS THE SENIOR U.S. REPRESENTATIVE IN A COUNTRY. UNDER THESE CONDITIONS, THEY ENCOUNTER UNIQUE CHALLENGES THAT COULD NEVER BE REPLICATED OUTSIDE OF EUROPE"

Strong Europe: Five Pillars Empowering Junior Leaders (2016).

I was fortunate that, while serving in U.S. Army Europe, junior-leader empowerment was supported on all levels, and additionally ensured by the necessity of decentralized mission command inherent to the European theatre. My battalion commanders both expected and allowed platoon leaders to pursue opportunities to serve as AMCs. Upon arrival to the unit, platoon leaders immediately began the doctrinefocused AMC training program and were permitted, under the guidance of the company commanders, to serve as "un-certified AMCs" during missions at CTCs, home station, and on allied operations under the mentorship of senior aviators and tracked by memorandum. In addition to our standard officer professional development program, Aviation lieutenants and select warrant officers conducted classes with the battalion commander and senior warrant officers on topics such as tactical decision-making, contingency planning, AMC cell coordination, military terms and symbols, threat assessment, air-to-ground operations principles and effective use of air-coordination measures and graphics. It was in classes like these that I remember learning the difference between a fire support coordination line and coordinated fire line. what aspects of linear warfare were changing in our theatre, and how to establish and arrange AMC planning cells for different mission sets. This program was regimented and documented, and platoon leaders were

expected to know every doctrinal Aviation mission and its appropriate application within the construct of supporting the ground force in a decisive action environment. Additionally, this program enabled doctrinal fluency when speaking on behalf of our Aviation task force while coordinating with regional ground forces.

Most importantly, we were trusted to execute, within reason, these missions as platoon leaders leading our platoons. The culminating event to this progression was a formal AMC mission brief and checkride, evaluated by the battalion commander, executive officer, S-3, or SP. My final AMC checkride consisted of a movement to contact from Katterbach, Germany, into the restricted area at Grafenwoehr, and culminated in a transition to hasty attacks on the Grafenwoehr ranges in conjunction with pre-coordinated U.S. Air Force Europe assets, followed by contingency-based decisions during the retrograde back to Katterbach. Many of my peers' AMC check rides coincided with leading their 4xAH-64D helicopter platoons within the construct of a battalion level, gunnery table XI (platoon practice) or XII (platoon qualification), aerial gunnery.

As observed by DES, these programs tend to be the exception and not the rule. Many lieutenants are never afforded the opportunity to succeed in doctrinal leadership environments when assigned to staff and maintenance roles for extended periods of time. As with any other progressive training program, if platoon leaders never develop the tactical proficiency to fight and lead their platoon, they can't be expected to be successful as a company commander or future staff officer in roles of greater responsibility. We need to give them the tools and opportunity to succeed or fail.

Additionally, battle captains are often pre-Captains Career Course (CCC) captains who are responsible for "...managing, coordinating and synchronizing current opera-

Photos by SGT Maricris McLane



tions..." (DA, 2016a) in a complex and dynamic environment, requiring an in-depth knowledge of mission considerations, contingency planning, variable assessment, and nonairframe-specific Aviation core competencies. Having a qualified AMC, or at least a junior-officer who has received deliberate training in the thought processes of AMClevel decision making, provides an increased advantage when serving in future/current operations roles and as liaison officers to the ground force. Several Aviation Digest articles have covered the necessity to employ top performers as Aviation liaison officers. In this environment and with the ground forces' often minimal understanding of Aviation application in a DATE, it's a must.

(3) LEADERSHIP AND EDUCATION

"IN MANY WAYS, THE AVIATION OFFICER IS IN A RACE, NOT TO RANK AND POSITION, BUT TO COMPE-TENCY." COL Robert T. Ault (2017)

The race to competency, while directly affecting platoon-level leadership, manifests itself most significantly in future Aviation leadership roles. While there are many variables that affect this throughout a commissioned aviator's career path, from broadening assignments and graduate degrees sapping pro-

ficiency, to flight activity category (FAC) 2 and 3 positions pulling aviators away from their aircraft within even the operational units. As stated by COL Ault, "Without a solid experience base as a lieutenant and captain, these future battalion commanders are likely to take command without even being qualified as Senior Army Aviators and without understanding how to fight, maneuver, and defeat the enemy" posing the prospect of battalion commanders at 18 years having spent less than one third of their total experience in combat formations (Ault, 2017). The initial solution to this greater problem is deliberate aviation tactical leadership training with frequency and repetition for junior Aviation officers. I recommend a tactical platoon leaders course and deliberate AMC programs as two primary solutions that shape the environment to enable platoon leader success.

TACTICAL PLATOON LEADERS COURSE

On arrival to their units, platoon leaders will be bombarded with maintenance, readiness level progressions, property, and action officer duties, all while continuing to learn the basics of their aircraft. This further marginalizes the idea of serving in a tactical leadership role, and all without the initial context or foundation of being a tactical mission leader. The platoon leaders need to be afforded the time to focus on tactical decision making, with their peers, surrounded by the

resources and mentorship available to facilitate the concept of being a platoon-level tactician.

The perfect forum for tactical development is while still at Fort Rucker. The capability of concentrated courses to rapidly train Aviation decision making in a complex environment has been successfully demonstrated by courses such as the Air Cavalry Leaders Course (ACLC). One recommendation would be the development of a 2-3 week tactical leadership course directed at lieutenants, which they would attend prior to transitioning to their first unit. This course would focus on air to ground operations in support of a ground force; Aviation core competencies; doctrinal use of terms, graphics, and symbols through Aviation mission planning; risk management; and AMC planning cells. The students could receive threat briefs from students in the Aviation Mission Survivability Officer (AMSO) course, tactics briefs from DES, and could utilize the Aviation Combined Arms Tactical Trainer (AVCATT) as the initial proving ground for their decision making. Ideally, these lieutenants would understand the concepts and initial decision-making factors of go-no-go criteria, how to present air mission briefs, how to write engagement/disengagement criteria, and gain the confidence in their mission sets to fluently converse with their combined arms counterparts in other branches.



Lieutenants often do not arrive at their units with a clear understanding of the doctrinal and tactical role of a platoon leader within the context of unified land operations and have no base level of understanding for tactical decision making. While they are able to learn this through a steep learning curve of on-the-job training as COL Ault described in his 2017 Aviation Digest article "Overbroadened and Underdeveloped," The challenge for the new lieutenant is to attain pilot-in-command and air mission commander status before the Captain's Career Course, but it is very unlikely they will." Considering that lieutenants can relocate via permanent change of station (PCS) to serve in a variety of roles, none of which guaranteeing a deliberate AMC training program, a short concentrated and deliberately intense course, pre-PCS, could pay dividends for our junior Aviation officers. Much like an individual retirement account, investing earlier pays greater rewards in the long run.

THREAT TRAINING__

Fort Rucker has ample capabilities to analyze worldwide aviation threats. As intelligence drives maneuver, threat understanding drives tactical decision making. Aviation threat considerations are very different than the considerations of the ground force, and considering there is only one Aviation Intelligence Officer (S-2) per unit, it is imperative the AMCs, in conjunction with their AMSOs, are capable of assessing existing and emerging threat systems and planning accordingly. While the Basic Officer Leadership Course (BOLC) does contain a threat assessment portion, at this point in time, lieutenants do not have a concept of tactical execution in which to apply this. The AMSO course has incredible potential to tie-in to both BOLC and the Aviation CCC, in addition to serving as a resource for S-2s who are often ill-prepared to serve in a role of intelligence support based on Aviation-specific threats in a decisive action environment. I would also recommend that every Aviation Battalion S-2 attend an Aviation maneuver course, like ACLC, in order to better serve their unit's AMCs.

DELIBERATE AIR MISSION COM-MANDER PROGRAMS

Deliberate AMC training programs must be a priority for unit leadership and tracked by ATP commanders. Training must be doctrinal, practical, and executed through frequency and repetition and supported by mentorship and continuous evaluation. Air Mission Commander checklists must be maintained and all-inclusive, including challenges across a variety of mission sets both administrative and tactical. Can the platoon leader coordinate and lead an administrative 8-ship cross-country to a unit training event? Can they understand the intricacies of the reconnaissance mission set and conduct both hasty and deliberate mission planning when required? Do they understand the ground force mission sets, and are they capable of maintaining situational awareness to execute the commander's intent as the supported unit executes branch and contingency plans? We need to provide trainees the opportunity to succeed, while ensuring the training environment is challenging and realistic.

"GREAT LEADERS CAN LET YOU FAIL, YET NOT LET YOU BE A FAILURE. OUR GREATEST LEADERSHIP LESSONS COME FROM

DIFFICULTY" General Stanley McChrystal (2011).

Unit leaders must be willing to accept risk in allowing junior-leaders to operate outside of their (and your) comfort zone, while mitigating risk through battle-rostering with senior aviators and other AMCs. We need to allow our platoon leaders too-to expect them to fail during training. Failure within a constrained and safe training environment is one of the most important tools in the evolution of tactical decision making. I personally remember several clear examples of missions at the Joint Multinational Readiness Cen-

ter, where I made and learned from tactical mistakes during my AMC progression. We conducted an afteraction-review, identified solutions on how to fix the issue, and moved forward with follow-on missions. For me, this environment of supportive warrant and commissioned mentors was imperative to junior-leader development.

For every decisive operation, there are often one to three shaping operations, and merely leading a shaping operation would be a fine task for a growing platoon leader. Often giving a junior-leader the challenge and responsibility of a mission that may be easy for a seasoned AMC provides much greater training value for the team than merely accomplishing the mission with your senior aviator. Additionally, a junior-leader acting as an "uncertified-AMC" can crew with a certified AMC and progress to being crewed with a non-AMC with an AMC in another cockpit. Even many veteran AMCs continue to progress individually when tasked with serving as an AMC mentor within a flight and often enjoy the challenge of training a future commander how to fly and fight their platoon.

CONCLUSION_____

"HOWEVER, DOCTRINE IS **ONLY ONE FACTOR IN HOW WE FIGHT. OF GREATER** IMPORTANCE IS OUR TRAINING AND LEADER **DEVELOPMENT. BUILD-**ING AGILE AND ADAP-**TIVE LEADERS AND UNITS** THAT CAN PREVAIL IN THE RELENTLESSLY LETHAL **ENVIRONMENT OF LARGE-SCALE COMBAT OPERA-**TIONS REQUIRES TOUGH. **REALISTIC, AND REPETI-**TIVE TRAINING" LTG Michael Lundy, Field Manual 3-0: Operations (DA, 2017).

Twenty-first century warfare will be continue to advance in complexity

and technicality as the U.S. Army visualizes its role within the operating concept of the multi-domain battle. In an Army that now requires its Aviation commanders to synchronize manned and unmanned assets within a joint battlespace while integrating a vast array of available assets to increase lethality on the enemy, our largest asset is still our leaders. If a cavalry troop commander is fundamentally challenged and overwhelmed in leading their manned aviation assets within the context of their mission requirement, how can we expect them to be successful once we introduce, and expect, precision execution utilizing manned-unmanned teaming? The capabilities of these leaders in an increasingly intricate strategic landscape will depend on how early we tactically train them and how deliberate that training program is. This starts with our lieutenants. It is our responsibility to give them the opportunity to succeed or fail as Aviation tacticians, to provide honest mentorship, and to shape the conditions to maximize their lethality through empowered junior-leader decision making.

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here was a sensation of anticipation when the 10th Combat Aviation Brigade (CAB) received notification to deploy as the first rotational aviation unit to complete a 9-month operational deployment as the Regionally Allocated Force (RAF) supporting Atlantic Resolve. However, the grandeur of an operational rotation to Germany vs. a combat rotation was guite alluring in foresight. The true difficulties of having to execute a multitude of non-stop training missions in the constrained United States European Command (EUCOM) operational environment, specifically as it pertains to RAF units, can only truly be appreciated in hindsight. Each battalion, company, and section had its own distinct set of challenges. From a Human Resources (HR) perspective, the failure to specify personnel requirement and entitlement parameters prior to the rotation and the current lack of external HR Support provided to RAF units ul-

timately degraded personnel readiness during the 10th CAB rotation to Germany. Finance and postal support, established in the "Provide HR Services" competency of HR doctrine, were the most significant human resources support issues during the rotation (Department of the Army [DA] Field Manual 1-0, 2014a). Additionally, the lack of fence for operational deployments negatively impacted unit OBJ-T (the Army's readiness rating system) training objectives as 10th CAB struggled to hit the required 80 percent (%) Force Tracking Number (FTN). The challenges and lessons learned from the HR community within EUCOM RAF must be addressed to ensure coordinated warfighting function and training objective success for future rotations.

SUPPORT PROVIDED BUTNO SUPPORT GIVEN

THE MINIMAL PROVISIONS OF HR SUPPORT AND SERVICES TO REGIONALLY ALLOCATED FORCES IN EUCOM

By CPT Nicole A. Hayman

The first challenge endured while providing HR services to RAF formations was financial support. No servicing finance authority provided support throughout the theater. In a deployed and garrison environment, there is a Financial Management Support Unit (FMSU) with lower echelon modular Financial Management Support Detachments (FMSD) that provide active duty pay support to assigned formations. Field Manual 1-06, "Financial Management Operations," paragraph 1-86, describes FMSUs as, "...assigned to the sustainment brigade [and] the FMSUs primary mission is to provide general FM support on an area basis, to include support to joint and multinational commands, units, Soldiers, authorized civilians and contractors" (DA, 2014b). Each FMSU has three to seven FMSDs providing support to units and Soldiers in an area of responsibility. The pay support functions provided by FMSDs listed in Chapter 4, Section I, paragraph 4-4 of Field Manual 1-06 are as follows:

THE **FMSDS** PERFORM THE FOLLOWING PAY SUPPORT FUNCTIONS:

THEATER IN AND OUT PROCESSING

- Start/stop/change deployment entitlements (normally automated at theater entry/ exit location).
- Entitlement verification/certification.

CUSTOMER SERVICE REPORTS PRODUCTION

- Debt management.
- Bonus processing.
- Start/Stop/Change entitlements.
- Pay inquiry.
- Case Management System (CMS).
- Pay inquiry analysis.
- Reject/recycle report.
- Merged Accountability & Fund Reporting (MAFR) reconciliation.
- Unit Commander's Finance Report (UCFR).
- Monthly entitlement verification.

PAYSUPPORTTRANSACTIONPROCESSING

- Review, coding and verification of documents.
- Upload data into respective FM systems.

Hence, it would seem that operational deployment units would fall under the local supporting sustainment brigade for financial support. The 106th FMSU, 16th Brigade Special Troops Battalion, 16th Sustainment Brigade,

MONTH	MARCH	APRIL	MAY	JUNE
ASSIGNED	637	641	647	639
TOTAL STARTING PAX	357	355	370	373
REDEPLOYERS (DROPS)	2	7	9	8
DEPLOYERS (ADDS)	0	22	12	6
TOTAL END STRENGTH	355	370	373	371
TOTAL PERCENTAGE STRENGTH	55.73%	57.72%	57.65%	58.06%

Figure. Historical strength breakout for 277th ASB (Information obtained from CPT Nicole Hayman, 277 BN S1).

could be the supporting element. The 106th FMSU's mission statement is to, "...[provide] FM and resource management support across the USAREUR and, on order, the USAFRICOM AORs [United States Africa Command Area of Responsibilities]" (DA, 2018). Since RAFs fall under U.S. Army Europe (USA-REUR), 106th FMSU should provide financial support to RAFs; however, this option was not exercised. Instead, in regard to finance support, Appendix 2 to Annex F, USAR, EUR Operations Order (OPORD) 066-16 (Atlantic Resolve 2.0)-Unclassified (USAREUR G1, 2017), directs units to utilize home station finance offices for pay support. There was a significant issue for pay inquiries, entitlement starts, and normal customer service since all actions had to be emailed to a home station mission command rear detachment element in order for processing to occur. The ability to check on the status of Soldier actions was a struggle, as the diligence in care for a Soldier thousands of miles away diminished or was lost in translation. Soldier frustration with the lack of pay support permeated decreased unit morale and trust in Battalion S-1 shops as the central link with finance. Rather than relying on home finance offices and rear detachment per-

sonnel, forward

July-September 2018

RAFs need a servicing FMSD for pay support. An added benefit of aligning this support is that FMSUs also execute their mission essential tasks (METs) in conjunction with rotational vs. garrison support.

Similar to financial support, another challenge experienced in providing HR services to RAF formations was postal support. The lack of external support provided in this area was a training distractor and added troop to task stress on RAF units. Appendix 2 to Annex F, USAREUR OPORD 066-16 (Atlantic Resolve 2.0)-Unclassified (USAREUR G1, 2017), provides the following guidance regarding postal operations for the Atlantic Resolve rotation:

"Postal Support in Garrison. Units deployed to garrisons should have full postal support to include finance, stamp sales, and money order sales. Units may be required to provide Soldier augmentation to

depending on the manning of the garrison post office. Postal support in Forward Locations. The level of postal support in forward locations varies. Soldiers should plan on bringing stamps to send letters back home."

Therefore, units were required to take personnel out of the fight in order to provide postal services to their units. The primary mission of the EUCOM RAF is training proficiency toward OBJ-T metrics while simultaneously acting as a heightened forward presence, primarily aimed at deterring Russian aggression. Soldiers assigned to a post office acting as human resources specialists, instead of performing primary functions and military occupational specialties, hinders the unit's primary deterrence and training mission. Additionally, leaders are sometimes taken out of the fight to supervise operations, as was the case with the 10th CAB. The



JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER
638	637	639	TBD	TBD
371	364	350	341	341
8	15	11	3	N/A
1	1	2	0	0
364	350	341	341	341
57.05%	54.95%	53.36%	TBD	TBD

Figure continued

duties. Parallel to the financial support solution, once again, an asset in the 16th Sustainment Brigade could solve this issue. The 569th HR Company activated 25 October 2016, with the mission of providing personnel accountability, casualty, and postal operations to all units within their area of responsibility. Technically, the cumulative population for the RAF would not support an entire postal platoon allocated to support the EUCOM RAF as the brigade footprint was 1,565 personnel in each sustainment brigade area of operations. However, paragraph 2-89 of Field Manual 1-0 discusses the modularity of the postal platoon and subsequent squads as, "Each postal squad has the capability to perform operations or services missions or to perform independently as needed as a mobile mail team" (DA, 2014a). In other words, USA-REUR could independently task a postal squad to provide postal support to RAFs. Once again, HR Company alignment with the RAF Atlantic Resolve rotational units would enable units to focus solely on the mission, in addition to providing the HR Company realistic and realworld training for combat postal operations.

The final challenge experienced came in the form of attrition and turnover. The 10th CAB, as is the case with most other operational deployments, was not "fenced in" (meaning 10th CAB Soldiers could be reassigned) for the rotation.

Hence, Soldiers continued to face permanent change of station (PCS), expiration-term of service (ETS), retire, as well as go temporary duty (TDY), and return or TDY en route to schools and other assignments. Personnel replacement operations were on the unit to resource. The rotation was like a revolving door, which created issues for Battalion S-1s in terms of managing and tracking personnel between home station mission command and forward elements regarding personnel accountability and essential personnel services functions. The more significant problem the lack of fence presented was the unit's inability to meet percentages for leaders and total personnel required during external training evaluations. To illustrate the gravity of this issue, it is imperative to note the entire brigade only met the required FTN of 80% for a 2-week period from 3-14 July 2017 (personal communication from Brigade S1 Team, Boley & Friedline, July 2017). As a further example, The Figure shows the historical strength breakout for the 277th ASB. The 277th ASB did still have garrison missions at home station, to include running the Supply Support Activity and Apache phase maintenance for two battalions. Hence, the substantially low percentages below 80%. However, after a small increase in personnel up to July, an expedited downward trend ensued as the deployment came to a close. The biggest impact this has on mission readiness was the negative impact on the unit's

ability to obtain training readiness as prescribed by OBJ-T metrics. In order to get to a "T" status on a particular MET under the OBJ-T Task Evaluation Worksheet, the unit has to have at least 85% of leaders present at training and 80% of all its assigned personnel at training. If the intent of the RAF mission truly is training readiness for MET proficiency, units need to be fenced in order to meet mission training objectives.

The constrained environment the EUCOM RAF mission is currently experiencing regarding financial, postal, and personnel support should be re-evaluated. Resources should be evaluated to shift and be exercised in conjunction with the operations that benefit both the RAF and potential supporting units. There is always a more feasible concept of support than no support at all. Unfortunately, the current HR structure allocated to support the RAF units does not follow suit.

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WHY THE FORGOTTEN WARFIGHTING FUNCTION IS SO IMPORTANT

By CPT Daniel Liebetreu and MSG Edward Keopuhiwa

As Army Aviation continues to transition back to a near-peer fight in the decisive action training environment (DATE), the branch must adapt across all six warfighting functions. At the Joint Multinational Readiness Center (JMRC) in Hohenfels, Germany, aviation battalion task forces (ABTFs) are struggling to implement the basics of a force protection plan. This failure is removing aircraft from the fight before they are able to get off the ground. To succeed in combat, units must aggressively train the fundamentals of protection by returning to a mindset of security first; especially in the complex and unpredictable operational environment (OE) we face today.

An ABTF provides the ground force commander (GFC) with agility, flexibility, and lethality to seize and exploit the initiative. The enemy is aware of Army Aviation's importance to ground maneuver, resulting in rotary-wing aircraft prioritized at the top of the enemy's high payoff target list (HPTL). Unfortunately, unlike the Air Force, Army Aviation does not have security squadrons to protect their aircraft, and many aviation units are not trained or equipped to defend themselves in the DATE fight. While MG Gayler's standing guidance is to organize and implement a tactical assembly area (TAA) security plan with organic ABTF assets, most units are

ill-prepared when they arrive at the Combat Training Centers (CTC). The basics of TAA security can be enough to deter the enemy's special purpose forces and ground reconnaissance, but ABTF staffs are not creating the TAA security plans and aviation Noncommissioned officers (NCOs) are not familiar with the basics. As a branch, Army Aviation needs to preserve its combat power through better training and equipping, focused Leader Professional Development (LPD), and greater command influence. Neglecting force protection results in a failure of Army Aviation to support the combined arms team when it matters most-in real combat.

BEST PRACTICES FOR THE AVIATION BATTALION TASK FORCE

Despite the trend of ABTFs struggling to implement adequate force protection plans during CTC rotations, several units have been successful. It is worth noting that all of these battalions have a few things in common. First and most importantly, is command influence on the protection warfighting function. Company and battalion command teams that place emphasis on protection get the results needed to be successful here at JMRC. Soldiers

dier knows his primary and alternate fighting positions. They train their Soldiers on their chemical, biological, radiological, and nuclear (CBRN) equipment and have multiple teams qualified on each crewserved weapon. Unfortunately, this is the exception, not the norm. On the other end of the spectrum, a Chinook company recently deployed to Hohenfels without their M4s and M9s. When asked to integrate into the battalion TAA security plan, they could only offer their M240s from the Chinooks. Not surprisingly, that company was nearly overrun by

this provides the battalion leadership and staff time to understand the capabilities of their people and equipment. Too often, General Support Aviation and Assault Helicopter Battalions forget to include their AH-64s into the TAA security plan. During Allied Spirit VII in November of 2017, despite terrible weather during the OPFOR attack, AH-64Ds from 1-3 attack reconnaissance battalion (ARB) remained synched with their intelligence team, and perfectly timed their takeoff to a 5-foot hover to defend the TAA from armor and mechanized infantry. In addition to understanding aircraft capabilities, building the team early allows for basic force protection planning. Aviation battalion task forces frequently fail to bring all of their Soldiers to the CTC, only to find they have insufficient personnel to maintain security. The task force must maximize the number of crewserved weapons and qualified crews it brings to the CTC. Finally, knowing your people provides an opportunity to capitalize on the non-aviation expertise across the battalion. Officers and warrant officers with prior service in combat arms units are

Even with the best leadership and preparation, much of the success of an ABTF base defense plan relies on the amount of detailed coordination made with the ground maneuver brigade. Since the ABTF cannot defend against enemy armor, fires, and aircraft, the staff must coordinate for appropriate TAA locations and engineer support. Many companies struggle to occupy a TAA and maintain duty day for flight operations, so utilizing engineer assets to dig fighting positions is essential. In addition, the engineers can construct berms for the forward arming and refueling point (FARP), dig high mobility multipurpose wheeled vehicles (HMMWVs) into defilade, emplace obstacles, and cover dead space with mines. Proper coordination with the supported Brigade Combat Team (BCT) can also expedite a "jump" to a new TAA location.

common, but their knowledge is fre-

quently underutilized.



Soldiers from Bravo Company, 2-227th GSAB pull security with their Polish partners during exercise Combined Resolve X at the Joint Multinational Readiness Center. Photo by CW3 Joval Eblen (JMRC Falson Toam)

and NCOs strive to improve when they see their leadership "troop the line" to inspect fighting positions, observation posts (OPs), and obstacles. In one instance, a battalion executive officer climbed into a particularly well dug-in OP to deliver a cup of coffee and check morale. His Soldiers immediately understood the importance of security to the battalion team. Moreover, the best units frequently rehearse the battle drill for a TAA attack so every Sol-

a single fire team from the opposing force (OPFOR), only to be bailed out by the gun trucks from its forward support company.

A second area every unit can improve is the proper planning and usage of their organic assets. Previous articles from the Falcon Team have stressed the importance of building the team early-90 to 180 days out-to succeed at CTC rotations. Since every ABTF is different,

While most BCTs will not permanently dedicate forces to defend the aviation TAA, they are often willing to conduct CBRN sweeps and initial security for the ABTF quartering party. Once established, adjacent unit coordination can relieve the burden of security, offer early warning if OPFOR is present, and provide a quick reaction force. Army Techniques Publication (ATP) 3-04.1, Aviation Tactical Employment, emphasizes this in stating, "Coordination with adjacent units will achieve

effective force protection plans, interlocking fields of fire, and assist in the prevention of fratricide" (Department of the Army, 2016).

CBRN READINESS

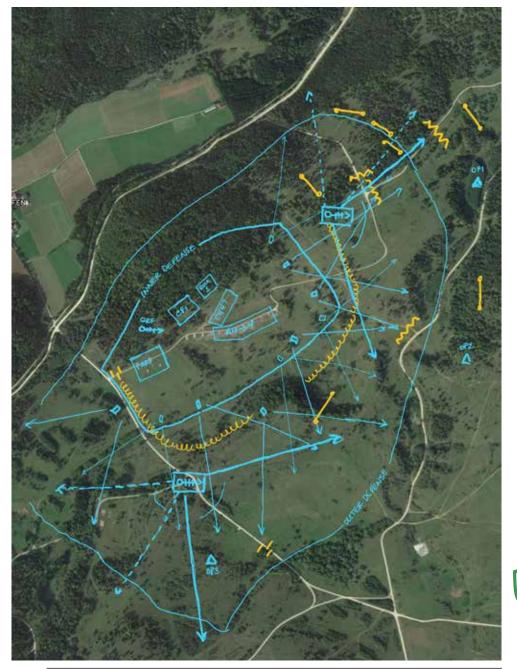
Army Aviation has an element of the protection warfighting function it can greatly improve upon—CBRN readiness. Given the continued use of chemical weapons in Syria and the known arsenal possessed by North Korea, CBRN training and

equipment are critical to overall readiness. Unfortunately, Aviation is way behind due to equipment shortfalls on the current Modified Table of Organization and Equipment (MTOE). Currently, aviation companies are only authorized one CBRN mask per Soldier-either a ground mask designed for wear with the Joint Service Lightweight Integrated Suit Technology (JSLIST) or a flight-approved mask intended for the Joint Protective Air Crew Ensemble (JPACE). This often results in Soldiers with incorrect sizes and aircrews without ground masks and suits to protect them unless they are in the aircraft. Aviation must adjust the MTOE to provide everyone a ground CBRN mask and JSLIST while providing aviators and nonrated crewmembers a flight mask and JPACE to leave with the aircraft.

Furthermore, Aviation must remove the stigma against flying in missionoriented protective posture-Level IV (MOPP IV). As a company commander in Korea, one author struggled to get the necessary equipment required to train his flight crews in MOPP IV and found little support from the battalion staff in resourcing the required time or equipment for the training. Despite the difficulties, the entire company managed to execute a "crawl, walk, run" program involving the AH-64D Longbow Cockpit Trainer that culminated in night terrain flight in full MOPP IV under both night-vision goggle (NVG) and night-vision device (NVD) conditions. Ultimately, the company discovered that properly fitted gear was not a significant hindrance to flight. While sustained flight in MOPP IV is not possible due to fatigue, the confidence gained by the team was invaluable.

WAYS TO IMPROVE YOUR ORGANIZA-TION

Due to the recent increase in aviation accidents, many units are pursuing ways to prioritize training and maximize the value of each hour its Soldiers spend at work. Recognizing these difficulties, the authors rec-



An example of a hasty tactical assembly area security plan created by the Falcon Team for an afteraction review during exercise Allied Spirit VII at the Joint Multinational Readiness Center. Graphic by LTC Joshua Severs (Operations Group, JMRC)

ommend three methods to improve your organization's ability to implement an effective force protection plan. First, utilize Sergeants' Time Training (STT) and command maintenance time effectively to instruct and train individual Warrior Tasks and Battle Drills (WTBD) while in garrison. Second, conduct LPD on expeditionary operations, TAA occupation, and CBRN defense and decontamination. Finally, plan and execute field-training exercises with an OPFOR and force protection requirements.

For many aviation units, STT fell victim to the deployment cycle in support of the Global War on Terror and was underutilized during the past decade. With the reemergence of DATE rotations and potential large-scale contingency operations (LSCO), there must be a renewed focus on WTBD proficiency. Army Doctrine Training Publication (ADRP) 7-O-Training Units and Developing Leaders (DA, 2012), stresses the importance of NCOs training their Soldiers on additional skills aside from their military occupational specialty



Soldiers from Delta Company, 2-227th GSAB prepare hasty defenses for their quartering party during exercise Combined Resolve X at the Joint Multinational Readiness Center. Photo by CPT Daniel Liebetreu (JMRC Falcon Team)



A Soldier from Charlie Company, 2-227th GSAB secures his tactical assembly area in MOPP IV during exercise Combined Resolve X at the Joint Multinational Readiness Center. Photo by CPT Daniel Liebetreu (JMRC Falcon Team)

(MOS), including warrior tasks used during field problems and team, platoon, company, and battalion battle drills. This must be deliberately planned and executed during STT at home station. All too often at JMRC, NCOs are teaching their Soldiers the basics to WTBD while "in the box" on a rotation. This is too late. Even worse, some NCOs have lost the art of instructing and will execute the skill level one, two, or three task themselves. In the July-September 2017 Aviation Digest article, "Pre-CTC Rotation Tips for Aviation Senior NCOs," the author, a Falcon Team Senior Enlisted Advisor, emphasized the need to prioritize individual Soldier task training at home station prior to a CTC (Etheridge, 2017). Prioritizing STT in garrison increases confidence and effectiveness of Soldiers when faced with the adversity of the near-peer threat environment.

More than 2 years after the publication of ATP 3-04.1 (DA, 2016), consensus from the CTCs is that implementation has been slow across the

aviation enterprise. Much of the basic knowledge required to operate in the field environment was lost during the past 2 decades of fighting from established forward operating bases. Company commanders must build companies capable of planning and executing missions, maintaining aircraft, and sustaining the force in the field. Meanwhile, battalion and brigade commanders must train their staffs to plan, prepare, execute, and assess missions in an austere environment across all six warfighting functions. To facilitate this, the authors recommend monthly LPDs on expeditionary operations held at the battalion and brigade level. These LPD sessions can also serve as forums for teaching new doctrine and refining the Tactical Standard Operating Procedure (TACSOP).

Topics should include, but are not limited to current doctrine, TAA occupation, expeditionary mission command, potential threats or adversary capabilities, and aircraft CBRN decontamination.

The most effective way to prepare a unit for combat or a CTC is tough, realistic field training exercises. While the three CTCs have resources-OP-FOR, civilian role players, Multiple Integrated Laser Engagement System (MILES)-that units do not have access to at home station, creative exercise design can replicate much of the CTC experience. Moreover, field problems must be challenging and incorporate the friction expected at CTCs. The authors recommend company and battalion field training with 24-hour operations, a live OPFOR, well-prepared fighting positions with 24-hour security, and a detailed TAA security plan. Security plans must include OPs, primary and alternate fighting positions, detailed sector sketches,

obstacles, and casualty collection points. Codify Class IV requirements in the unit SOP and account for the added space in load plans. The best way to improve a unit's expeditionary capability is through repetition. If the CTC rotation is the first iteration, the unit will fail every time.

Given the current operational tempo across Army Aviation, leaders must protect training time, focus on providing quality training, and maximize the value of each field problem. They must show their Soldiers what right looks like every time, during every field problem. For many, the lessons learned during field exercises will culminate in tough, realistic training during a DATE rotation at a CTC, but for some, these skills will be tested against a real enemy in an unpredictable operational environment. Will your Soldiers be ready?

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Soldiers from Bravo Company, 2-227th GSAB defend their tactical assembly area during exercise Allied Spirit VIII at the Joint Multinational Readiness Center. Photo by CW3 Joval Eblen (JMRC Falcon Team)

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AVCATT(

Aviation Combined Arms Tactical Training ——
 IN THE HIGH-INTENSITY FIGHT

By CW3 Jesse A. Powell

he Aviation Combined Arms Tactical Trainer (AVCATT). If there is one underutilized training device at the battalion level, this is it. The question of why will usually earn a quick response pointing to how miserable and useless of an experience AV-CATT training is. When pressed for details, most aviators will expound on the differences between the actual aircraft and the device, and most unit planners will say that it is impossible to create realistic training or remind you of how more often than not, the device doesn't work.

Having designed Decisive Action Training Environment (DATE) scenarios for the Air Cavalry Leaders Course (ACLC), I have learned over the last 2 years that this is not entirely accurate. Air Cavalry Leaders Course scenarios involve force-on-force battles between battalion-sized friendly and enemy forces, and hybrid missions with both regular and irregular forces combined with civilian clutter. The missions are designed for troop-level reconnaissance and security missions, but occasionally include on order follow on attack missions. As

well, the design of the missions allows for different enemy forces and enemy courses of action, permitting us to execute the same scenario multiple times with different enemy courses of action.

While there are shortcomings in the hardware and software that the Army is working to correct, the real reason units are unable to effectively utilize the AVCATT is more easily traced to personnel than technology.

The AVCATT operators at Fort Rucker have a much higher utilization rate than the rest of the fleet, and that higher rate shows in their proficiency. I discovered a short time ago that the company running the AVCATT contract does not have effective initial training program for their operators, nor do they have any sort of periodic refresher training or evaluation system. For locations that have a low rate of utilization, this

leads to atrophy of the operator's skills, even if they were properly trained at that location when they began working. Without current and full knowledge of how to utilize the system, the operator is unable to provide solutions to unit training requests, leading to less desire to use the system, leading to even less capable operators. This is the state in which we currently exist.

In truth, the real deficiency does not



CW3 David Fox shows CW2 Steven Stage, left, how to use the GPS on their CH-47D simulator as they prepare for a tactical platoon air assault mission in the aviation combined arms tactical trainer (AVCATT) at Simmons Army Airfield, Aug. 14. (Photo by U.S. Army SGT April Campbell, 82nd Combat Aviation Brigade Public Affairs)



LTC William Braman, commander, bottom left, talks to his staff about the different obstacles he wants to inject on his pilots as they train to conduct tactical platoon air assault missions in the aviation combined arms tactical trainer (AV-CATT) at Simmons Army Airfield, Aug. 14. Braman has spent the last few weeks getting back to basic Army Aviation doctrine as they practiced planning for and conducting tactical platoon air assault missions at the Southeastern Regional Simulation Complex. (Photo by U.S. Army SGT April Campbell, 82nd Combat Aviation Brigade Public Affairs)

lie with the operators. The operators can be retrained and brought up to speed very quickly, but it will not change the current situation until the real deficiency is addressed-Threat tactics and involvement on the part of the unit. In order to create a complex and realistic enemy, the unit needs to know what an enemy formation would look like and how it would act. The unit also needs to be involved and in control of the actual execution of training and use the operators only for their intended purpose, running the machine.

Units need to understand that the civilian operators are there to operate the system. Their job is not to study threat doctrine or to keep abreast of the latest in threat systems advances. It is incumbent for

the customer to bring the knowledge with them to create realistic training. As much as you would not expect range control to create your training exercise in the field, it is unrealistic to expect civilian operators to do this in the AVCATT. Additionally, it is the responsibility of the unit to ensure successful training by maintaining control of the simulation, directing enemy and friendly unit movements, engagements, and playing most, if not all, of the white cell actors on the radios.

In order to create a realistic enemy, the unit must first know what that enemy looks like and its tactics. This does not require classified clearance. There are many places to locate current threat doctrine on the unclassified side. The Army training network hosts the G-2 Train-

ing and Doctrine Command Intelligence Support Activity Opposing Forces/Operational Environment (OE) threat doctrine, the world-wide equipment guide, the Training Circular (TC) 7-100 series, and many other current threat-related reports and assessments. The network also has generic composition and disposition charts for enemy formations from company level through brigade and higher. Professional publications such as the Red Diamond threats newsletter and OE Watch ejournal, both published at Fort Leavenworth, Kansas, regularly perform analysis of threat tactics. When all else fails, a ground maneuver officer may be able to provide information to fill gaps based on American tactics.

Along with a lack of understanding on the part of the threat, the lack unit investment/involvement during the simulation creation and execution will depth charge even the best plan. It is a common occurrence during AVCATT executions for aviators show up with only one unit representative. Even when multiple unit representatives are present, as soon as the scenario starts, the AV-CATT operators are made responsible for successful completion of the training while the unit representatives watch in the background. This lack of unit control and involvement ultimately diminishes training value, both by not providing a complex realistic scenario, and also task saturating the operators who are then unable to adequately respond to all aircraft in a timely manner.

In the AVCATT battle master command station, there are six stations. In order to effectively observe and control, provide scenario inputs, and complete a successful simulation, each of those stations need to be filled with personnel who are familiar with the mission and have completed thorough rehearsals with the operators before the simulation in order to identify any contingencies or concerns that may arise. At the ACLC, our executions are conducted with the two AVCATT operators and

between four and five cadre (three/ four in the AVCATT battle command center and one located with the Unmanned Aerial System [UAS] operators). The scenarios are built to be 90% automated, with certain options that can be chosen as the scenario unfolds, depending on student ability level and decisions they make during the execution. It operates much like a decision-support matrix for the enemy and friendly ground forces. The primary concern of the operators is to control movement rates and formations for the entities and answer calls for fire (with cadre approval). The cadre play different actors on the radios and monitor both the scenario and student performance for the purpose of steering the execution and for the afteraction review (AAR). Together, this allows the operators to focus on the mechanics of the simulation and allows the cadre to focus on the training itself.

When designing a DATE simulation, units need to be realistic about

the time required. As the old saying goes, garbage in garbage out. If the unit expects the mission to be designed in a day with a 1-hour trip to the AVCATT to set up the entities, odds are the execution will show it. Time should be allotted for intelligence preparation of the battlespace (IPB), input from intelligence and ground force representatives for both friendly and enemy forces, simulation file creation, refinement, rehearsal, and then finally, mission execution. While this is resource intensive on the front end, having a simulation that can be used repeatedly will make this worthwhile moving forward.

The first, and sometimes most difficult step, is choosing the battlefield. There are multiple databases for both continental and outside continental United States (CONUS and OCONUS) locations available in the AVCATT; however, most units are unaware that anything other than the two or three most popular exist. Units need to ask for a full list

of databases, with coordinates for the terrain model limits, and then conduct map reconnaissance to find terrain that fits the training it requires. When choosing terrain, the proficiency level of the planners and aviators involved should be taken into account. For the first attempt, terrain should be complex enough to dictate relatively obvious and easy-to-understand enemy courses of action (ECOAs). As the unit becomes more proficient at planning and executing missions, terrain that requires a higher level of planning and execution proficiency can be chosen for future simulations.

Once a location is chosen, the next step should be to adjust an existing EO brief and backgrounder from current DATE publications to fit both the terrain and the type of enemy you will be facing and to create the first draft of the order and required annexes. While this should not become a priority task, it is important to understand that both the socio-political terrain and goals of the enemy play a role in determining likely ECOAs. The order from higher needs to be a logical extension of the OE brief, and provide the basic information that will allow the mission planners to complete either military decision making process (MDMP) or the parallel planning process, depending on the unit and mission.

After the background has been set, the next step in the process is to develop the ECOA in detail to include a detailed order of battle, routes, and positions. This development of the enemy force should be down to the individual vehicle and include all contingency routes, enemy position areas for artillery (PAAs), and longrange reconnaissance, intelligence, surveillance, and target acquisition (RISTA)-asset templated positions, and include multiple versions to cover all given ECOAs at a minimum. If the different ECOAs include identifying one of multiple possible enemy formations, then the development must also include a second set of positions and routes for the



U.S. Army SPC Cynthia Nichols, flight medic, Charlie Company, 3rd Battalion, 126th Aviation Regiment, adjusts her helmet to use the Aviation Combined Arms Tactical Trainer (AVCATT). (U.S. Army National Guard Photo by SSG Nathan Rivard)

different formations. The order of battle will be built out of the enemy composition and disposition and adjusted to account for the warfighting functions and the tactical task of the unit from TC 7-100.2 (disrupt, fix, assault, breach, exploit, etc.). While this list will initially include threat systems from the DATE doctrine, it is important that mission planners be familiar with the capabilities and the effects of each system, as the entity database available in the AV-CATT does not completely line up with threat training resources, specifically the Worldwide Equipment Guide (WWEG). For example, while the 2S9-1 Nona (Sviristelka), developed for use by the Soviet air assault divisions, is the self-propelled mortar system of choice in the DATE training system, it is not available in the AVCATT. The 2S-31 (Vena) and 2S-23 (Nona-SVK), variants of the Nona, are available depending on the desire for a motorized or mechanized enemy, and are almost identical in capabilities and close in physical appearance. In this case, the 2S9-1 would simply need to be replaced in the order of battle with one of the other systems available, or replaced in the simulation with a note on threat identification during planning. Routes and enemy positions should be created with input from the S-2 and Aviation Mission Survivability Officer (AMSO). The AMSO, as the resident subject matter expert (SME) on threat systems,

will have valuable insight on system capabilities regarding aviation, and the S-2 will have a knowledge base on how systems and units are employed. At this point, input from ground maneuver officers would be very helpful for determining realistic movements of the enemy ground force, as well as placement of friendly ground forces. If a ground maneuver SME is not available, the Army's Force Management System Web Site (FMSWeb) or Maneuver Center of Excellence (MCoE) supplemental manual 3-90, Force Structure Reference Data Brigade Combat Teams, can provide a composition and disposition of different friendly units.

Before the scenario is built, it is helpful to bring all parties back to the table, and wargame the enemy COAs. While certain conflicts will almost certainly be found once the entities are actually set in motion in the simulation, any obvious conflicts that can be identified and adjusted before this process begins will shorten build time and avoid unnecessary friction in the planning process later. With the time it takes to build a scenario and the number of entities in this environment that need to be adjusted for even small changes, in this case an ounce of prevention is worth at least a pound of cure.

Now that all the prep work has been done, it is time to schedule the AV-CATT for build time. At a minimum, at least one person who is familiar not only with the mission, enemy, and threat system capabilities, but also with a full understanding of the intent of the training, needs to be present during this build period. As stated before, the AVCATT operators are technicians, not tacticians, and will need a knowledgeable unit representative to make decisions, substitutions, and refinements to the enemy and friendly force, movements, contingencies, and options. These decisions need to be based on the desired end state. While a particular threat system may have airburst munitions in reality, this capability may not be available in



CW2 Steven Stage, left, and CW3 David Fox conduct preflight checks in their CH-47D simulator as they prepare for a tactical platoon air assault mission in the Aviation Combined Arms TacticalTrainer (AVCATT) at Simmons Army Airfield, Aug. 14. 3rd General Support Aviation Battalion, 82nd Combat Aviation Brigade, has spent the last few weeks getting back to basic Army Aviation doctrine as they practiced planning for and conducting tactical platoon air assault missions at the Southeastern Regional Simulation Complex. (Photo by U.S. Army SGT April Campbell, 82nd Combat Aviation Brigade Public Affairs)



U.S. Army SSG Robert Slater, flight Medic, Charlie Company, 3rd Battalion, 126th Aviation Regiment, uses the Aviation Combined Arms Tactical Trainer (AVCATT) to assist with sling load training at the Army Aviation Support Facility in Burlington, Vermont, Jan. 10, 2016. The mobile trainer allows Slater to expand his skills and practice sling load training while in a structured and safe environment. (U.S. Army National Guard Photo by SSG Nathan Rivard)

the system. So the guestion would need to be answered of how to create that effect without that specific capability. Where are the enemy artillery firing positions? When, in the course of the mission, will they arrive to those positions? What ammunition will they use? How often will they complete a fire mission? What forward observation elements (such as PRP-4M or BRM-3K reconnaissance vehicles) being destroyed would degrade those fire missions, and by how much? These are just a few of the many questions that will need to be answered during the scenario build. The more of these options that can be preprogrammed to operate with minimal oversight during the execution means the more that unit representatives can focus on the aviator's actions and capture more information for the AAR, as opposed to simply monitoring the vast amount of moving pieces in this type of battle. The end state for this phase of the process should be complete friendly and enemy groundforce possessing, but not limited to: starting points, routes, contingencies, end points, locations for different indirect fire assets to leave the formation and to fire from, and a complete battle that takes place without any input from aviation forces. In other words, the AVCATT operators should be able to bring up the mission and hit start, and then sit back and watch an entire ground battle unfold with minimal input. To maximize impact, steer the battle to friendly defeat or high-loss rate. The idea behind this is that the battle will take place with or without aviation forces, and easy measures of performance and effectiveness will be how differently the friendly ground force fares when the unit successfully completes its mission in support of those ground forces. When this is complete, so is the creation of the scenario.

While creation of a complex, realistic scenario is paramount to conducting high-intensity training, a chain is only as strong as its weakest link. In the same manner, a high-

ly refined simulation that does not have a knowledgeable, trained support element from the unit will end poorly at best. At worst, it will need to be aborted mid-execution as the balancing of multiple moving parts unravels into unproductive chaos. Before conducting the execution, all staff members should once again gather, preferably at the AVCATT, and rehearse. This rehearsal should include different enemy and friendly options and scenario contingencies, as well as determining clear goals for the particular training being conducted that day, so that all players understand what constitutes mission success. Rehearsal is also going to be the best time to decide what decisions are best left to the AVCATT operators and which are best reserved by the unit representatives. While answering calls for fire might be more expedient and seamless when done by the civilian operator, making sure that the operator knows the correct verbiage and understands range limits, times of flight, time required for a battery to emplace upon arrival to a PAA if necessary, ultimately whether or not to fire, and the effectiveness of that fire on target may be better left in the hands of unit personnel. This is just one of many factors that will need near constant oversight during mission execution. Other factors include weapons status of enemy reconnaissance assets, maintaining spacing and distance of entities and entire formations over the course of the route, adjusting movement speeds, and early release of formations from routes into combat formation due to direct or indirect fires. This is just when it comes to managing the entities in the scenario. Adjudication of aviation actions will also require oversight, as it will not be uncommon to see an inexperienced team or platoon of Apaches attempt to go head-to-head against an entire armor company from well inside the enemy weapons engagement zone, or to see a UAS asset gain contact with the enemy formation and orbit directly over a mechanized column with air defense artillery assets at 8,000 feet. There are certain decisions that the device cannot make requiring human input.

Finally, I would advise expectation management during the first few training events. This is a complex process that has not been trained for many years. From the lack of general tactics knowledge in aviation units to the lack of flight crew experience in training against a well-trained, well-equipped enemy, it may be necessary to leave the proverbial training wheels on in the beginning. Aircraft shields, low rate of enemy fire, low accuracy of enemy fire, enemy radar systems ra-

tion. However, even one well-made scenario can provide multiple iterations and serve a unit's training needs indefinitely. As well, a large-scale scenario can be used to train all aviation missions. A cavalry squadron can train reconnaissance and security with screen operations or zone reconnaissance to locate and collect on the enemy. An attack battalion can use the same mission later in the scenario timeline for attack missions, either as a standalone aviation mission, or in conjunction with indirect fires and the friendly ground force entities. Cargo, utility, and medical evacuation

make a scenario highly useful for annual aviation mission survivability (AMS) training requirements.

While building an effective AVCATT scenario takes time and effort, the payout for even one complete scenario will pay dividends over time. While it has drawbacks, the AVCATT can be the most effective and costefficient training tool for this type of training. Not only will it provide aviators with collective training normally unavailable outside of a combined training center and improve the quality of training for all units within an aviation brigade, but

the tactical knowledge required to build and execute one will improve the quality of unit planning staff



U.S. Army Soldiers with Charlie Company, 3rd Battalion, 126th Aviation Regiment, used the Aviation Combined Arms Tactical Trainer (AVCATT) to assist with sling load training during their drill weekend at the Army Aviation Support Facility in Burlington, Vermont, Jan. 10, 2016. (U.S. Army National Guard Photo by SSG Nathan Rivard)

diating continuously, and leaving all enemy-guided munitions empty are just a few examples of advantages an inexperienced unit can be provided and weaned off of as it gains proficiency.

There should be no doubt that this is an undertaking of large propor-

can also train with the scenario by conducting operations in the midst of a high-intensity battle (another reason to have scenario with highly automated friendly and enemy ground forces). Use of current enemy threat systems and the employment of overlapping, synergistic effects of a large-scale force should

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WHAT'S STOPPING YOU FROM SUBMITTING YOUR ARTICLE TO AVIATION DIGEST?

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LIFE SUPPORT OFFICER IN ARMY AVIATION

By CW3 Emilio Natalio

rmy Aviation does not consider aviation life support equipment (ALSE) a priority. One could argue that Army Aviation does prioritize ALSE with a dedicated chapter in Army Regulation (AR) 95-1 (Department of the Army [DA], 2014a) and an Army Training Circular (ATC), but it definitely falls short amongst and compared to our sister Services. In the Army, the aviation life support officer (ALSO) is considered an additional duty; many of the ALSOs throughout the Army are recent graduates of flight school or have limited experience in aviation. The training requirements prescribed by Army regulations are mostly unfulfilled. The ALSO should be a separate military occupational specialty (MOS). Another option in prioritizing the ALSO would be to create a fifth Warrant Officer tracking option or absorb aviation life support systems (ALSSs) into one of the existing tracks.

Photo by SSG Natasha Stannard

Much like the Army weight control program manager or the key control custodian, the ALSO is considered an additional duty. Each additional duty in the Army serves a particular purpose, but very few additional duties can save a life in an aviation accident. For example, the night vision goggle (NVG) custodian is responsible for ensuring that all goggles are functional and inspections are up-to-date. If a set of NVGs is faulty, the NVG custodian does not actually perform the repairs, they turn the NVGs in for repair. The ALSO, on the other hand, will (in most cases) perform the work or inspect the work performed on the equipment. Many times, the ALSO is an aviator medically unable to fly or an aviator who attended the ALSE course en route to their duty location. The "ALSO will be appointed on orders to assist, advise and represent the commander on all matters pertaining to aviation life support systems (ALSS)" (DA, 2014b, section 8-1(i), p. 43). A Warrant Officer track on ALSS will allow personnel to specialize in ALSS, where they will develop into a bona fide (AFE) subject matter expert.

The United States Air Force (USAF), the United States Navy (USN), and the United States Coast Guard each have a specific rating or Air Force specialty code (AFSC) for aviation survival equipment technicians. A rating or AFSC is equivalent to the Army's MOS. The USCG Aviation Survival Technician inspects life rafts, vest and survival kits, and all aircrew flight apparel (Aviation Survival Technician, 2004). In the USAF, after graduating from Sheppard Air Force Base in Texas, the AFE Specialist (1POX1) will be able to manage the inspection, maintenance, and adjustment of assigned AFE (USAF, n.d.). The USAF explains the importance of the AFE Specialists skill set by stating, "the attention to detail provided by these professionals could mean the difference between life and death" (USAF, n.d.). Our sister Services specialize their ALS technicians. Specializing allows for a better understanding on how each system operates and allows the specialist to train all aircrew members on ALSE.

The ALSO is responsible for the training of all aircrew personnel (DA, 2014a). Training rated and nonrated crew members is a required annual task for all aviation units. Aviator academics or hands-on training is an excellent way of completing all the required annual training. An ALSO who is not a pilot-in-command or who is a recent flight school graduate does not add any validity to the training. A Warrant Officer or a Soldier who specializes solely in ALSS would validate the training. In every aviator academics I have attended in previous units, an untracked/pilot CW2 instructed the battalion. Their topics normally focus on the proper use of flight clothing or survival vests. They instruct on topics with limited practical knowledge of the equipment. Survival training and survival transmitters/receivers also fall into their purview of training. This training is either usually overlooked, or the Aviation Mission Survivability Officer (AMSO) conducts the training.

Creating a new Warrant Officer track or an MOS is not the only option. Absorbing the ALSS program into one of the other tracks is also a viable option. The aviation safety officer (ASO) monitors the ALSS program (DA, 2014a). Understandably, the ASO is responsible for use of personal protective equipment (PPE) throughout the unit. The aircrews

don clothing and equipment that could be labeled as PPE; however, it could also fall into the category of aviation mission survivability equipment. The AMSO is responsible for the training of personal recovery (PR). The AMSO is designated as the unit's personal recovery officer (PRO). "Personal recovery is a critical component to all operational planning. Programs that reside under the umbrella term of PR include survival, evasion, and resistance and escape" (SERE) (DA, 2015). The responsibilities of the ALSO include survival training; thus, why not absorb the ALSO training with AMSO training?

Army Aviation should focus its perspective on specializing the ALSO in order for validity to be added to this important duty. The addition of a specific MOS would improve the ALSS program by leaps and bounds, and adding the ALSS as a fifth track would specialize aviators. Absorbing the ALSE program entirely into one of the existing tracks would also take the guesswork out of who "owns" the program. Appointing a newly assigned aviator as the ALSO is an injustice to the aviator, the ALSS program, and the unit's aircrew members.

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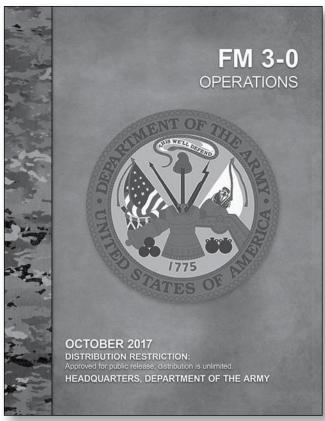
The Return of U.S. Army Field Manual 3-0,

Operations

Lt. Gen. Mike Lundy, U.S. Army Col. Rich Creed, U.S. Army

hen the U.S. Army rescinded Field Manual (FM) 3-0, Operations, and published Army Doctrine Publication 3-0, Unified Land Operations, in 2011, the world was a different place. The likelihood of large-scale ground combat against an enemy with peer capabilities seemed remote. While the Russians had intervened in Georgia with ground forces in 2008, there were few indications that they would engage in further physically aggressive behavior. Chinese maritime claims in the South China Sea seemed to have little to do with Army concerns. The Korean Peninsula remained tense, but resumption of war seemed no more likely than at any other time since the 1953 armistice. The Army's two remaining armored brigade combat teams in Germany were directed to return to the continental United States, and the Army was downsizing while building momentum toward a decision that would make a significant portion of Army forces in Korea rotational as well.

The strategic environment has changed significantly since then. Russian aggression against the Ukraine and increasingly bellicose behavior by the North Koreans and Iranians are prime examples. The rapidly modernizing Chinese military added to the sense that the Army needed to quickly adapt to the increased possibility of large-scale ground combat against adversaries significantly more capable than al-Qaida, Iraqi insurgents, and the Taliban. As a result, the Army began training for large-scale combat operations during mission command training program exercises and at its "dirt" combat training



centers after a decade-long hiatus. It also discovered our current tactical doctrine for large-scale combat operations was inadequate.

In 2016, the Army chief of staff directed Training and Doctrine Command to write an operations manual that would provide the doctrinal basis for prevailing in large-scale ground combat against enemies whose military capabilities, in regional contexts, rivaled our own. While the Army had some doctrine that was relevant to fighting big wars, it lacked a single, up-to-date, unifying doctrinal manual focused on large-unit tactics for use against contemporary threats. There was also a definitive need to address Army operations along the continuum of conflict and the roles the Army fulfills for the joint force as our adversaries challenge the status quo in various regions around the world.

Previous versions of FM 3-0, Operations, and its predecessor, FM 100-5, contained useful ideas relevant to current problems, but none adequately addressed all the challenges of today's operational environment. Reasonably informed professionals can and do argue which challenges are the most serious, but most might agree that they fall into three general categories. The first, and arguably most important, is that the Army's culture needed to change. The focus on regularly scheduled deployments of brigade combat teams, higher echelon

gains to achieve the desired political purpose, comes from the demonstrated readiness to prevail in largescale ground combat against the most lethal threats. This is why the core of FM 3-0 addresses large-scale ground combat operations at the brigade, division, and corps level. It describes the tactics and procedures used during both the defense and the offense, and those familiar with previous editions of FM 3-0 or FM 100-5 are unlikely to be surprised by what they read in those three chapters. There are no new tactical tasks,



Since 2003, seldom have units larger than a platoon been at risk of destruction by enemy forces, and no units faced enemy forces able to mass fires or maneuver large-scale forces effectively.



headquarters, and supporting formations to conduct counterinsurgency operations (COIN) from static bases against enemies with limited military capabilities created a view of ground combat incongruent with the realities of fighting large-scale combat against a peer threat. Few leaders with significant experience training or fighting against peer threats remain in our tactical formations, and those with experience at more senior levels were out of practice after a decade or more focused on COIN. The new FM 3-0 addresses the need to change our Army culture by describing the operational environment and threat, emphasizing the important roles of echelons above the brigade level during operations, and addressing the training readiness considerations in each warfighting function during large-scale ground combat.2

The second category of challenges is improving our Army's readiness to prevail in large-scale ground combat against opponents with peer capabilities. Our Army and our doctrine became optimized for limited contingency operations that primarily focused on operations where counterinsurgency and stability tasks made up the bulk of what both units and headquarters were expected to do. Since 2003, seldom have units larger than a platoon been at risk of destruction by enemy forces, and no units faced enemy forces able to mass fires or maneuver large-scale forces effectively. The problem is that the ability to effectively shape security environments and prevent conflict through credible conventional deterrence, or to consolidate

but there is a renewed recognition and deeper discussion of the tactics required to employ capabilities within and across multiple domains to enable freedom of action for subordinate echelons.

What is new from previous editions, however, are the chapters focused on operations to shape, operations to prevent, and operations to consolidate gains. A large proportion of the Army engages in these operations around

> the world continuously, and how well the Army does so has a significant

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influence on both the likelihood of large-scale ground combat and the strategic outcomes of that combat should it occur. FM 3-0 thus addresses the operations the Army conducts across the continuum of conflict as it fulfills its strategic roles as part of the joint force, recognizing that it is the demonstrated capability to prevail in large-scale ground combat that enables the effective prosecution of missions supporting the other strategic roles. As a result, the manual also contains a renewed emphasis on the roles of the Army's corps and division echelons to employ capabilities as formations.

Corps and divisions play a central role in large-scale ground combat, which is not and cannot be a brigade combat team (BCT)-centric endeavor. When properly constituted, trained, and led, echelons of command unburden subordinate formations by narrowing their focus, reducing their spans of control, and maintaining the broader perspective in time and space necessary for effective planning. The division is the first echelon able to effectively plan and coordinate the employment of all multi-domain capabilities across the operational framework. The same is true for the corps during operations that require multiple divisions. Each higher echelon has a perspective that should look at time, geography, decision-making, and the electromagnetic spectrum differently. This is not a new military idea but reflects a significant change from the formative experiences of the majority of our Army's leadership during a time when divisions and corps were serving in the roles of joint headquarters or more focused at the operational versus tactical level.

The third category of challenges pertains to the reality that the U.S. Army does not enjoy overwhelming advantages against every opponent it may be required to fight. FM 3-0 recognizes that some adversaries have equal, or even superior capabilities that may put Army forces at a position of relative disadvantage, particularly in a regional context. Some threat capabilities, particularly integrated air defense systems and long-range surface-to-surface fires, severely impede freedom of action in the air and maritime domains, meaning that the other services may not be able to help solve ground tactical problems as quickly or easily as they did in Iraq and Afghanistan. Against some opponents, U.S. Army cannon and rocket artillery is likely to be both outranged and significantly outnumbered, which would present a tactical problem even if friendly forces were not contested in the air domain. The potential combination of relative disadvantage

in the ground, maritime, and air domains has implications for how Army forces conduct operations against enemy formations designed around long-range fires systems, which employ maneuver arms in support of fires more often than the other way around. Understanding the various methods our adversaries and potential foes employ (systems warfare, isolation, preclusion, information warfare, and sanctuary) is therefore critical to devising tactical plans to defeat them, and it is important to understand that these methods are likely to manifest themselves differently in each situation.

Unlike AirLand Battle, which was focused on one enemy, or previous iterations of FM 3-0, which really didn't focus on any particular threat, this edition of FM 3-0 is focused on peer or near-peer adversaries (Russia, China, Iran, and North Korea) in the current operational environment. For that reason, the operational challenges our Army faces span the range of military operations across all domains, and they needed to be addressed. FM 3-0 is not optimized for any one type of operation or single threat, but rather benchmarked against the most potent adversary capabilities and methods that have proliferated worldwide, and accounts for what the Army is required to do—from large-scale ground combat to shaping the security environment through regional engagement, and all operations in between. FM 3-0 does not change the Army's foundational operational concept, which remains unified land operations. What it does is better account for the reason behind the operations we conduct to clarify the interrelationship between strategic purpose, planning, readiness, and the tactical tasks assigned to units.

Organization and Purpose

FM 3-0 arranges operations by purpose, in accordance with the four Army strategic roles. The Army shapes the operational environment, prevents conflict, conducts large-scale ground combat, and consolidates gains. Army forces do this as part of the joint force, generally in a multinational context, for a joint force commander. Previous versions of FM 3-0 and FM 100-5 did not adequately emphasize the critical linkage between tactical tasks and achieving the strategic purpose for which we conduct them. Categorizing types of operations by purpose aligns with the joint phasing construct found in JP 3-0, Joint Operations, while emphasizing that there is not always a direct linear relationship between those phases

(see figure 1).³ Chapters 3 (Operations to Shape) and 4 (Operations to Prevent) of FM 3-0 describe operations conducted short of large-scale ground combat, when adversaries seek to use methods below the threshold of

when we follow through to ensure the enemy cannot constitute other forms of resistance to protract the conflict or change its nature in ways that thwart our purpose. In short, FM 3-0 provides a context for commanders and



(Graphic from U.S. Army Field Manual 3-0, Operations)

Figure 1. Army Strategic Roles and Their Relationships to Joint Phases

armed conflict to upset the status quo or subvert friendly nations. Chapters 5 (Large-Scale Ground Combat), 6 (Defense), and 7 (Offense) focus on large-scale ground combat, and chapter 8 (Operations to Consolidate Gains) addresses the echeloned transition from large-scale ground combat to the final achievement of the operational or strategic purpose.

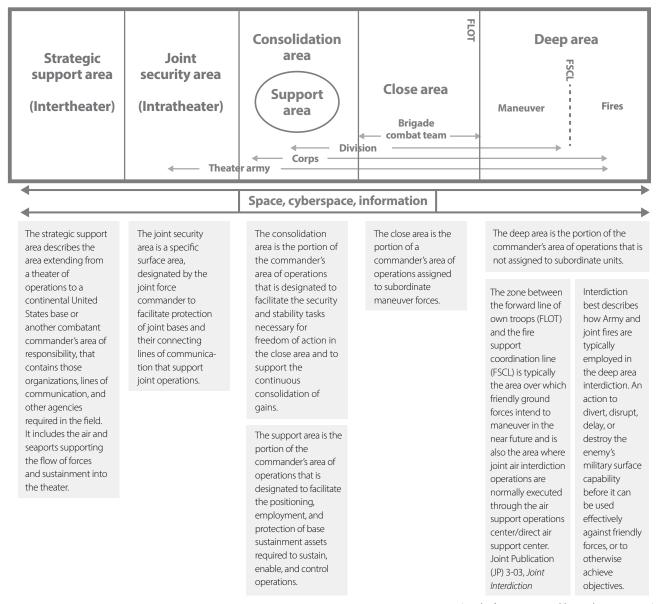
Achieving the strategic purpose of operations is the underlying theory of victory in FM 3-0 and is addressed at the end of chapter 1. There are few acceptable permanent solutions to conflict at the strategic level. The majority of conflicts in the world are managed over long periods of time, with each side trying to increase and exploit positions of relative advantage. In effect, the joint force is either winning or losing a competition that provides opportunities to achieve favorable results during operations short of armed conflict, during armed conflict, and during the transition that occurs after armed conflict. The Army, acting in performance of its strategic roles as part of the joint force, conducts operations across the conflict continuum to ensure the United States maintains a position of advantage relative to actual and potential threats. Operations to shape or prevent are successful when they defeat an adversary's purpose, such as an attempt to destabilize the desired status quo or subvert a friendly state. We win during large-scale ground combat by destroying or defeating the enemy's conventional capabilities and will to resist. We effectively consolidate gains

their staffs to successfully practice operational art appropriate for the range of military operations.

Old and New

Any discussion about new doctrine for large-scale ground combat operations tends to generate the discussion that the U.S. Army is pining for the "simpler" days of the planning for the Soviet threat in Europe as an escape from the challenge of COIN. Another is the Army is seeking to bring back large-scale combat as a justification for maintaining force structure. Neither is the case. Chapter 1 describes a very different operational environment than that of thirty-five or even five years ago. The intellectual approach is to specifically account for today's adversaries and the broad categories of operations the Army conducts to confront them as part of the joint force. Incorporating the Army chief of staff's guidance with regard to preparing the Army for large-scale land combat against an opponent with peer capabilities was critical, and FM 3-0 makes it clear that there are linkages between what the Army does during operations short of conflict and what it needs to do if it is to prevail in war. FM 3-0 accounts for both what is enduringly fundamental and what has changed in the context of current environmental realities, Army organizations, and Army capabilities.

There are several big ideas that are not necessarily new to operations but have not been adequately addressed in recent doctrine or experience. We specifically "This article is reprinted with the permission of Military Review, the Professional Journal of the US Army, Combined Arms Center, Fort Leavenworth, Kansas. It was originally published in the Nov-Dec 2017 issue of Military Review."



(Graphic from U.S. Army Field Manual 3-0, Operations)

Figure 2. FM 3-0 Operational Framework for Unified Land Operations

sought to account for the importance of friendly and threat capabilities across multiple domains and the information environment. As a result, we modified the operational framework to approximate the extended battlefield framework found in the multi-domain battle concept (see figure 2).⁴ Doing so recognizes the realities of the operational environment, current Army and joint capabilities, and the planning considerations essential for winning. The new operational framework adds the strategic support area, joint security area (JSA), consolidation area, and deep fires area to the previously designated deep, close, and support areas.

The strategic support and joint security areas encompass where Army activities occur outside the areas of operation for which Army tactical level commanders are responsible. Army forces transit and operate in those areas, but the areas themselves are primarily the purview of the other services, combatant commanders, and joint headquarters because they largely encompass domains other than land. We added them because Army forces are heavily influenced by what happens there and have planning responsibilities for Army activities in those areas and the information environment. The deep fires area is that part of the deep area that is beyond where Army

forces would immediately plan to maneuver with ground forces and where primarily joint and Army cross-domain capabilities would be employed. The strategic support area, JSA, and deep fires area actually describe what already existed in fact but were not accounted for in previous large-unit tactical doctrine. It is the consolidation area that reflects the biggest change to the operational framework in terms of how Army forces look at areas of operation at the corps and division level.

power necessary to consolidate gains as large-scale combat ended in a particular area of operations. While this is still the case in Korea, and likely to be true when fighting as part of NATO, there are other places in the world where Army forces would need to consolidate gains ourselves, at least initially. This is especially important when we conduct high tempo offensive operations that bypass significant enemy maneuver forces to avoid being fixed while inside the range of enemy long-range



When we plan operations and allocate forces, we must account for the requirement to consolidate gains as part of making accurate, responsible staff estimates.



The consolidation area was designed to solve an age-old problem during operations. The Army has long wrestled with the security challenges behind its forces while maintaining tempo in the close and deep areas, particularly during offensive operations when brigade combat team rear boundaries shift forward and increase the size of the division support area beyond the capability of the units operating there to control terrain, secure populations, or protect themselves against bypassed enemy forces. The typical solution was to assign combat power from brigades committed to operations in the close and deep areas to the maneuver enhancement brigade (MEB) during exercises, which was satisfactory as long as the division bypassed only small enemy formations and the training scenario was metered to keep the enemy forces from being too aggressive. Actual experience against Iraqi forces during the first few months of Operation Iraqi Freedom indicated this approach entails significant risk both during and after execution of large-scale ground combat operations. The enemy cannot be allowed time to reconstitute new forms of resistance to protract the conflict and undo our initial battlefield gains. Against more capable threats, we need to address the problem directly by planning for and employing the necessary additional combat power beyond what is required for the close and deep areas to consolidate gains during large-scale combat operations.

During the Cold War in Europe, the Army could depend upon its allies to quickly provide the combat

cannon, rocket, and missile fires. FM 3-0 says that corps and division commanders *may* designate a consolidation area to a subordinate echelon as an area of operations to facilitate freedom of action by unburdening units in the support, close, and deep areas. For a division, this would be typically executed by an additional BCT that must be accounted for when the theater army conducts force tailoring for the joint force commander. A corps would assign a division responsibility for its consolidation area, which would expand as its divisions moved forward and unit boundaries shifted to maintain momentum.

Consolidation areas are dynamic, as the units assigned them initially conduct offensive, defensive, and the minimal stability tasks necessary to defeat bypassed forces, control key terrain and facilities, and secure population centers. Over time, as the situation matures, the mix of tactical tasks is likely to be equal parts security and stability in each consolidation area. However, security-related tasks always have first priority. Planning and execution to consolidate gains must account for all potential means of enemy resistance and be approached as a form of exploitation and pursuit if we want to create enduring outcomes. It is critical to avoid giving enemies the time to reorganize for a different kind of fight.

As mentioned above, the forces assigned consolidation areas are additive and not intended to draw combat power away from the close area. When we plan operations and allocate forces, we must account for the requirement to consolidate gains as part of making accurate, responsible staff estimates. The requirement to consolidate gains doesn't go away when we ignore

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it, and the longer the delay in addressing it the greater the impact on the force's ability to sustain tempo and the more challenging the requirement likely becomes overall. The Army has always been tasked to consolidate gains. It did so with varying degrees of success in the

perspective across the operational framework and are where the capabilities resident in each domain are orchestrated and synchronized to converge in time and space to enable freedom of action for subordinate echelons. It is they who identify and exploit windows of opportunity.



Brigade combat teams fighting in the close area generally lack the time or ability to effectively plan and employ multi-domain capabilities other than those already under their control.



Indian wars, after the Civil War during Reconstruction, during the Spanish-American War, during World War II and Korea, and in Vietnam, Haiti, Iraq, and Afghanistan. How successful we did it informs how the outcomes of those wars or conflicts are viewed today.

There are obvious implications to this idea. Followand-support units task organized to conduct combined arms operations are essential. The units could be in theater, or forces arriving later in the deployment process. Coalition units could often be well suited for assignment to consolidation areas. The biggest implication is that more forces are required and must be allocated to defeat the enemy on the battlefield and consolidate gains to attain a strategic objective than to just simply defeat the enemy on the battlefield.

Army Echelons and the **Operational Framework**

FM 3-0 recognizes the importance of cyberspace and space-enabled capabilities, electronic warfare, and the heavily contested information environment. It pulls key aspects of the latest doctrine in those areas into the operations conducted by theater armies, corps, and divisions. Converging those capabilities in support of ground forces to gain and exploit positions of advantage is a critical role played at the division level and higher. Brigade combat teams fighting in the close area generally lack the time or ability to effectively plan and employ multi-domain capabilities other than those already under their control. Mobility, lethality, and protection dominate the cognitive focus at the brigade and lower echelons during ground combat. Theater armies, corps, and divisions are far enough removed from the close fight to have a broader

How we think about the operational framework has changed. The first difference to consider is that we no longer discuss linear versus nonlinear constructs. Instead, FM 3-0 has contiguous and noncontiguous areas of operation to better account for the nonlinear nature of all operations, regardless of the physical lines on a graphic overlay. The next, and largest difference, is that each area of the operational framework has physical, temporal, cognitive, and virtual considerations that correlate with the focus of a particular echelon. Without an echelon-specific focus in time and space across multiple domains, the likelihood would be that everyone focuses on the close fight and current operations.

The operational framework considerations provide commanders and staffs a way to look at multiple domains and the information environment in the context of operations on land. The considerations are as interrelated as the domains in any specific situation and have different implications for different echelons operating in different areas of the operational framework. The physical and temporal considerations pertain to space and time, and have been with us a long time. Cognitive considerations are those things pertaining to enemy decision making, enemy will, our will, and the behavior of populations. Virtual considerations are in regard to activities and entities that reside in cyberspace, both friendly and threat. Taken together, the four considerations allow commanders and staffs to account for the reality that all battle is multi-domain battle and has been for a long time.

Maritime capabilities have influenced land combat for more than two thousand years. Air capabilities have done the same for more than a century, while space capabilities have been with us for more than

forty years. Even cyberspace has played a critical role for almost two decades. By explicitly expanding the operational framework beyond a tactically focused physical model, FM 3-0 accounts for the employment of capabilities unbound by range constraints during operations short of armed conflict, during small-scale contingencies, during large-scale ground combat, and as we consolidate gains to achieve enduring outcomes to our tactical operations.

The Way Ahead

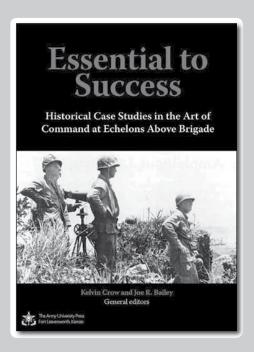
The new FM 3-0 has significant implications for the Army as it reorients on large-scale ground combat while simultaneously conducting other types of operations around the world to prevent peer and near-peer adversaries from gaining positions of strategic advantage. Many of the considerations necessary to achieve military success in the current operational environment are fundamentally unchanged, but what has changed is important. Army forces do not have the luxury of focusing solely on large-scale land combat at the expense of the other missions the Nation requires them to do, but at the same time, they cannot afford to be unprepared for those kinds of operations in an increasingly unstable world. Being prepared for large-scale ground combat generates credible deterrence and contributes to worldwide stability. Being prepared requires doctrine suitable for theater armies, corps, divisions, and brigades to conduct operations with the right mix of forces able to execute tactical tasks to achieve operational and strategic goals. We look forward to a spirited professional discussion across our Army as we integrate our new operational doctrine into the force. That professional discussion will undoubtedly inform more changes in the future and make us a better Army.

Notes

- 1. Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 2008 [obsolete]). Change 1 to this version was published in 2011; Army Doctrine Publication 3-0, *Unified Land Operations* (Washington, DC: U.S. GPO, 2011 [obsolete]).
- 2. FM 3-0, *Operations* (Washington, DC: U.S. GPO, 6 October 2017).
 - 3. Ibid., figure 1-4.
- 4. For more on the multi-domain battle concept, see David G. Perkins, "Multi-Domain Battle: Driving Change to Win in the Future," *Military Review* 97, no. 4 (July-August 2017): 6–12.

MilitaryReview

WE RECOMMEND



ssential to Success: Historical Case Studies in the Art of Command at Echelons Above Brigade is the latest book from Army University Press. Commissioned as a companion to the Army's 2017 version of FM 3-0, Operations, it contains twenty engaging and thought-provoking chapters by scholars and former large-unit commanders who analyze key decisions, enabling factors, and limiting factors in large-unit combat operations from the Second World War to current conflicts.

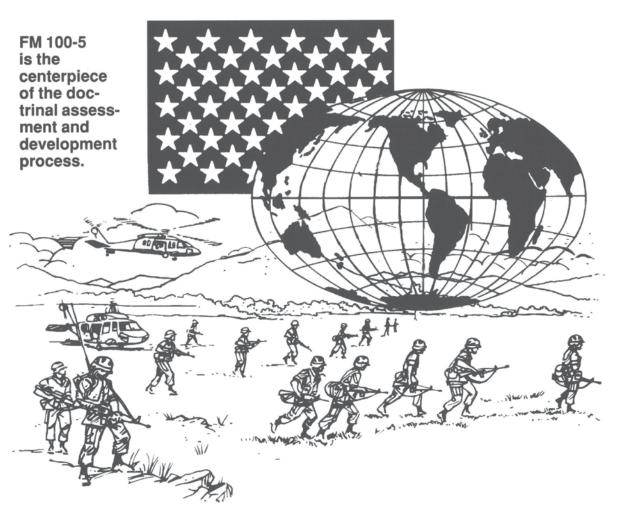
The U.S. Army's recent history of small-unit operations, combined with increased potential for large-scale combat against peer or near-peer rivals and advances in technology and social media call for a reassessment of command at senior levels. *Essential to Success* highlights situations faced by commanders of the past, and it explains and contextualizes the problems they faced, the decisions they made, and the outcomes of those decisions. The book invites readers, commanders, and their staffs to think critically and apply historical experience to large-scale ground combat of the future in an attempt to preserve American lives and valuable national resources.



100-5, Operations

A Paradigm For Adaptation

Lieutenant Colonel Michael R. Rampy School of Advanced Military Studies Fort Leavenworth, KS



U.S. Army Aviation Digest July/August 1992

FM 100.5. OPERATIONS
THE 1993 REVISION

The key is doctrine and the keystone is FM 100-5, Operations. The Army relies on its doctrine to provide intellectual focus and precision for everything it does.

army focused on the defense of Western Europe and the containment of communism. The Soviet Union—the major concern of our defense efforts for over 4 decades—no longer comprises a significant threat. A national military strategy of containment, strengthened with forward-deployed forces and a credible nuclear deterrent, proved its relevance. We succeeded.

As flexible response and forward deployment in Western Europe fade, we must confront the complexities of a new strategic environment, one that is multipolar, interdependent, and regionally oriented.

Adapting to a world that has changed more broadly and more fundamentally in the last 2 years than at any other time since the end of World War (WW) II imparts a unique set of challenges for our Army. Now—more than ever before—we serve as a strategic Army, a land force America and its allies count on to meet our global responsibilities in peace, crisis, and war.



The Strategic Environment

In his National Security of the United States strategy document (August 1991), President

George Bush posed the four fundamental demands of the new strategic era: "... to ensure strategic deterrence, to exercise forward presence in key areas, to respond effectively to crises, and to retain the national capacity to reconstitute forces should this ever be needed." This new national military strategy, the most prominent shift since the mid-1950s, focuses on regional threats whose capabilities and intents are not readily discernible. The threat covers the spectrum from illicit drugs and terrorism to the proliferation of technology and weapons of mass destruction. Simultaneously, a strategy of power projection means we will respond to crises primarily with forces based in the continental United States.

At home, resources previously committed to defense are now going to other national priorities. Part of the change in strategy is a diminishing resource base. Moreover, these fundamental changes to our strategic environment predicate we divest ourselves of nonessential assets and activities.

This entails identifying and maintaining our core capabilities—then eliminating the rest. Our guide to how we do this, and how we apply the resources that remain, is doctrine.



Role of Doctrine

Fortunately, we find ourselves in an era of doctrinal renaissance. The Army today is more aware of the critical role of

doctrine than at any other time in our nation's history. Furthermore, there are few times when the military has had such a unique opportunity to shape its own future.

In this regard, we approach the new era from a position of strength, a strength based on a highly professional force. Trained, proven, confident, and dedicated, our officers, noncommissioned officers, and soldiers stand ready to focus their energies on the challenges ahead. The lens that will allow them that focus is doctrine.

America's Army has always been a reflection of our society. Doctrine must complement the national military strategy and reflect the uniqueness of our Army and the American way of war. We have always been, as we are today, a unique combination of active duty professionals, volunteer militia, and citizen-soldiers serving as volunteers or conscripts.



Purpose of Doctrine

Doctrine is not a peripheral concern; it is the heart of our Army. Doctrine is the essential first step in developing a plan of

action designed to accomplish near-term objectives and to confront future exigencies.

D.W. Knox, in his excellent treatise on the nature and role of doctrine, asserts "[a] sound, comprehensive, all-pervading doctrine... is as important to an army as its organization." [Doctrine] is the vital link

between organizational thought patterns and reality, a common frame of reference for our Army. It lies in the continuum between theory and application; it must comprehend both, yet favor neither.

The Joint Staff defines military doctrine as a set of "fundamental principles by which military forces guide their actions in support of national objectives. Doctrine is authoritative, but requires judgment in application."

Effective doctrine is like a mirror: hold it up and it reflects our image, our nature, our purpose. Sometimes we agree with what we see; other times we do not.

The salient point is the mirror—doctrine—should always reflect the image of our Army. If the image lacks clarity or is not consistent with our perceptions, it requires revision.

While doctrine articulates how we do our business, it is only a guide to action, not a prescriptive checklist on "how to fight." Professor I.B. Holley contends "military doctrine is an officially approved teaching, precept, guide to action, a suggested method for solving problems or attaining desired results . . . doctrines are not hard-and-fast rules to be slavishly applied; they are suggestive."4

The Army relies on its doctrine to provide intellectual focus and precision for everything it does. One of



We serve as a strategic Army, a land force America and its allies count on to meet our global responsibilities in peace, crisis, and war.

its principal purposes is to allow us to think as a corporate body and, thereby, have consistent expectations in the conduct of our business.

This intellectual process strengthens our organization; identifies the essence of the army, stimulates dialogue among professionals, engenders writing, both professional and personal, and codifies our thoughts. Consequently, doctrine is the mechanism that bonds the Army to its sister services and its alliance and coalition partners.



Factors of Doctrine

External and internal factors combine to shape the development of doctrine and have far reaching implications on its

ability to adapt. We can exert a measure of control over some factors; others we cannot. The issue of controlling these significant factors is less important than understanding what they are and how they affect doctrinal development.

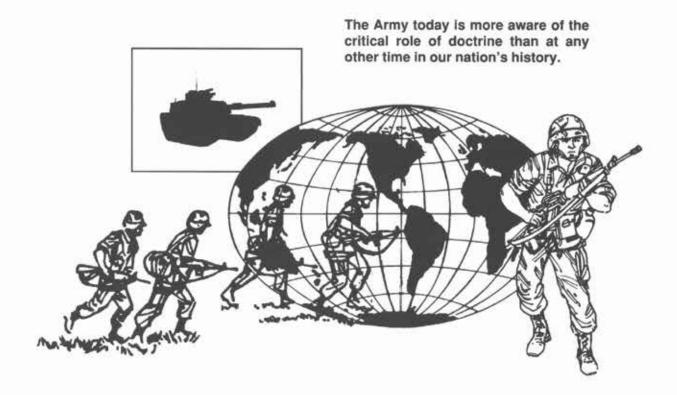
External. Throughout the evolution of our doctrine, the most significant external influences have been the threat, national security policy, technology, budgetary constraints, public support, and national values. These factors in varying proportions have had, and will continue to have, a significant impact on how our doctrine develops.

National security policy is fundamental to the revision of doctrine. Colonel Bob Doughty, the author of the insightful book *The Seeds of Disaster*, details the failed French doctrine of WWII. He contends that, for us, "no single factor [drives] the development of Army doctrine, but changes in national security policy lay at the basis" of any sweeping changes. When national security policy and national military strategy shift, "profound changes [occur] in the Army's doctrine, organization, and equipment."6

With the recent significant change in our strategy, we can expect, if history is any indication, "profound changes" will soon occur. We must plan for and manage those changes with great foresight.

The relationship between technology and doctrine is complex. This is due, in part, to the differences between the dynamic nature of technological advances and the seemingly laborious pace of doctrinal development.

Before World War II, Ferdinand Miksche, an early proponent of maneuver warfare and an advocate of the integration of technology and doctrine, asserted technology has a dramatic influence on the nature of war.



War undergoes continual evolution. New arms give ever new forms to combat. To foresee this technical evolution before it occurs, to judge well the influence of these new arms on battle, to employ them before others is an essential condition for success.

Public support and national values determine national security that, in turn, determines the nature and scope of doctrine. Therefore, doctrine must reflect this synthesis of national security policy, potential, and capabilities, public support, and a firm foundation in our national values.

Internal. Internal factors, many that we can influence directly, include institutional tensions and experience. The internal tension created by service parochialism and the seemingly endless fight over roles and missions have a direct impact on doctrinal development.

As a result, doctrine is frequently a contentious issue, because the services often cannot agree on the best way to prepare for the next war. Creating a strategy to contend with a new global environment must be the result of a logical thought process based on the needs of the nation.

Experience affects doctrine. History is replete with examples of armies that learn only in defeat; good armies also learn in victory. Ours is a good Army. We must learn in victory and thereby never suffer a defeat.



Questions About Doctrine

While the best measure of a doctrine is its application, we must be able to assess its prob-

able effectiveness short of conflict; to wait until conflict occurs may be too late.

We should continuously ask four questions of our doctrine: Is it *relevant* (does it address the threat)? Is it *achievable* (will it work given current resources, both physical and political)? Is it *acceptable* (will the Army and the American public accept it)? Is it *adaptable* (can it adapt to changes in a dynamic strategic environment)?

The more affirmatively we can answer these questions, the more likely we have the correct doctrine. The following statements help us maintain correct doctrine.

Relevance is a perceived relationship between adversaries; a doctrine based on the wrong perception of the threat is not relevant and in danger of failure.

Achievability comprehends the availability and application of resources. Doctrine must take a concept and translate it into a more assured appreciation of the constraints, both physical and political, of the present.

Acceptability is essential to the American way of war in terms of the least expenditure of friendly casualties and national wealth, and strong adherence to our national values. Not only must the Army accept and implement the doctrine, but also the public must accept doctrine as the accurate translation of national values and democratic ideals into military application. To violate this rule is to risk rejection.

Adaptability is a pivotal factor in assessing doctrine. In the void between organizational preference and operational requirements lurks the potential for disaster.



A Historical Perspective of Doctrine

Any review of the Army's operational doctrine must begin

with its keystone manual, Field Manual (FM) 100-5, Operations; from it, all other Army doctrine derives. FM 100-5 traces its roots back to the beginning of the Army.

From the Revolutionary War through the wars of the 19th Century, our doctrine appeared in different guises, much of it imported from Europe. From the manual's inception in the early 20th Century, when it first took on its modern name (although then still labeled a field service regulation), through the turbulence of two World Wars, Korea, Vietnam, Grenada, Panama, and Saudi Arabia, FM 100-5 has served us to varying degrees.

A high point was the 1941 version of the manual. In that year, ours was a nation on the eve of conflict: we faced the specter of war on a scale we could not have imagined only a few years before.

The historical challenge was clear: develop the appropriate doctrine for the appropriate time, or suffer the consequences. We focused our energies and got it right, although not without updating the manual at better than a once-a-year rate throughout the war.

The years following WWII witnessed a decline in doctrine. We entered Korea unprepared for the type of war we fought; our doctrine was neither relevant nor adaptable. A decade later, we entered our longest war, Southeast Asia, never incorporating its realities into our keystone doctrine. Doctrine seemed to have lost its relevance and adaptability.

The renaissance of doctrinal awareness in modern times began in 1972 with Operation Steadfast, the dissolution of the Continental Army Command into two distinct, specified commands: U.S. Army Forces Command, Fort McPherson, GA, and U.S. Army Training and Doctrine Command (TRADOC), Fort Monroe, VA. TRADOC's primary mission was to



... we must confront the complexities of a new strategic environment, one that is multipolar, interdependent, and regionally oriented.

focus on updating the Army's training and doctrine programs.

This resulted in the 1976 version of FM 100-5, the Active Defense and the "How to Fight" series of manuals. The 1976 version of FM 100-5 engendered acrimonious debate, yet served one important purpose-it reminded our Army of the purpose and importance of doctrine.

The 1982 and 1986 versions of FM 100-5 brought us out of the attrition-based active defense and into the maneuver warfare of AirLand Battle. We embraced the offensive spirit again and recognized the joint nature of operations.



The Keystone of Doctrine: FM 100-5

FM 100-5 is the instrument for managing and implementing adaptation and change. The

criticality of changing doctrine is evident. It is noteworthy that in "... few spheres of human activity are change and progress so constant and the need for accommodation and adjustment so unremitting as in the military."8

FM 100-5, our keystone doctrine, should be an all-encompassing expression of how the strategic, total Army intends to fulfill its obligations across the continuum of military operations. The manual must expand both: vertically, to address in more detail the strategic-operational linkage; and, horizontally, to encompass operations across the continuum of military operations in peace, crisis, and war.

We need a doctrine-based approach to managing change in our Army as we make a disciplined transition into the future. I emphasize ours is an intellectual and a pragmatic doctrine, a means to focus our efforts in these turbulent times. The caution, as Colonel [Professor] Bob Doughty has so aptly pointed out, is "... intellectual changes can sometimes be more difficult to achieve than material changes." 9

Doctrine, of course, is not an end in itself, but the means to an end in the larger context of national security policy. It must comprehend the lessons of the past, grasp the realities of the present, and function as a paradigm for adaptation in the future.

FM 100-5 is the centerpiece of the doctrinal assessment and development process. This manual must be an all-encompassing expression of how the Army intends to fulfill its strategic and operational commitments around the world. Clearly, we must capture the traditional and nontraditional aspects of our global operations. As we expand the scope of FM 100-5, however, we must not dilute the Army's fundamental purpose: to fight and win our nation's battles.

Our doctrine must avoid any uncertainty between the Army and the American people, if it is to pass the critical test of acceptability. To have meaning in the contemporary strategic environment, our doctrine cannot afford to focus solely on the business of warfighting; it must account for our other missions as well.

The result of any revision must reflect the uniqueness of the American view of war. To be useful, this manual must comprehend and support the fabric of national policy and strategy. It must be specific enough to provide a guide for operations, yet flexible enough to adapt to a constantly changing strategic environ-

We are maintaining the edge while bringing our size down, reshaping and adapting at the same time; in so doing we must keep the current situation in perspective. Ours is an Army in the finest condition we have ever seen. Having faced such challenges before, we will avoid the historical pitfalls of a victorious Army in reduction.

The key is doctrine; the keystone is FM 100-5, Operations, our paradigm for adaptation.

ENDNOTES

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TURNING PAGES book reviews of interest to the aviation professional

Rattler One-Seven: A Vietnam Helicopter Pilot's War Story

by Chuck Gross, Published by University of North Texas Press, Denton, TX 2004, 221 pages

A book review by CW2 Jeremiah C. Harrison

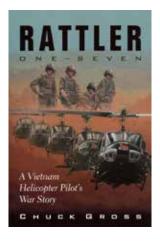
The Vietnam Conflict. For the average Service member, this was a conflict from a time long, long ago, and seemingly from a galaxy far, far away. But the tactics developed and lessons learned from that era are just as applicable in today's fight as they were back then. As today's aviators and crew members seem to get younger and younger, the age gap between knowledge learned in Vietnam and the current conflicts also increases. Vietnam was one of the first conflicts in which the Army force utilized helicopter aviation assets so prominently, and the Tactics, Techniques, and Procedures (TTPs) created and refined have provided a framework for modern ones. Although our fighting force's memories from that conflict seem to fade, it continues to be imperative that we don't allow that to occur. Keeping the memories fresh from that era enables the modern aviator to understand the history behind the aviation Warrant Officer, Air Assaults, and the Air Cav. Understanding the basis for modern doctrine gives us the foundational knowledge necessary when 'tweaking' tactics to fit the modern fight. Correlational understanding of our past broadens us as military aviation professionals and creates better leaders for the future.

Imagine the figurative curtain for the book opens and you find your-self as the Pilot in Command (PC) of a helo full of terrified, yet exceptionally brave, wide-eyed ground forces, on a 'long final' into a Landing Zone full of enemy, with tracers going past you on all sides, yelling over the intercom at your gunners to go 'hot' just so you can be heard over all the commotion of firing, aircraft noise, and chaotic radios. Intense, right? Now picture that this is just another day for you. Back to

the grind. In addition, imagine that you're only 20 years old. Rattler One-Seven tells the tale of a young man's journey through the Vietnam Conflict. Told from his perspective using old letters from home, personal notes, and colleagues' additions, we follow Vietnam-era Army Aviator Chuck Gross' year-long deployment in 'Nam, where he logged over 1200 combat hours, beginning as an inexperienced, bright-eyed copilot and leaving as a cantankerous Senior Air Commander.

We are included in exploring Chuck's fears, insecurities, internal realizations, and personal turmoil as he attempts to reconcile himself with the war raging around him, as well as the ever-increasing media negativity. Personal accounts of relationships with locals paint the overall picture of what it was like for a young Soldier to fight in a war with which he didn't agree at times. Rattler One-Seven is told in a matter-of-fact manner by a young man sent to war to fight for his country before he could even legally drink. At the age the majority of the youth were enjoying their college experiences, Chuck Gross was out fighting his country's war, flying an obscene number of hours every day, in charge of quarter million-dollar machinery, and responsible for the lives of all souls on board his aircraft.

Easily the best part of the book occurs when Gross' aircraft takes enemy fire to the transmission, forcing him to set down in enemy territory. After meeting up with a rebel, 'mohawk'-wearing, pathfinder, it's not long before he realizes that he's been forgotten about, left stranded miles from any secure friendly compound, and forced to self-exfil through the dangers and chaos of



'Charlie' mortars and firefights. All of this with only his sidearm as defense. All told in typical Gross matter-of-fact style. No wonder it was the final nail in the coffin that prompted him to enjoy a much-deserved break in Australia!

An avid reader myself, I thoroughly enjoy all genres of books and really relished delving into the history of my profession as a lift pilot. Looking back on events from our profession's past is one of the biggest learning tools we have. I feel like I learn so much about my profession from reading about the mistakes and close calls of those who came before me. The overall look of combat as this current generation knows it has changed so drastically from the look that author Gross knew and writes about, but my understanding of where we came from makes me such a better stick as an aviator and a better decision-maker as a PC. As a flight company-level aviator, it was incredibly interesting to read about the origins of, and correlate concepts that are drilled into us nowadays. Concepts such as power management, aerodynamics, tactical flight, crew interactions, management and coordination, and decision-making. Why are those concepts drilled into us? Because of the lessons learned from prior aviators like Chuck. His generation of aviators paved the way to give us the building blocks needed to become well-rounded aviators. Gross takes on a unique story-telling style as he recounts all of his war stories. A good read for anyone looking to round out their aviator tool bag.

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DIGEST

Dear Editor,

The OCT-DEC 2017 issue frames an important conversation we should continue to have within the branch: "Are we developing our leaders to meet the rigor of the Army mission?" The perspectives articulated by COL Ault on the value of tactical experience and by MAJ Shaw and Mr. Witty on the benefits of broadening provide an excellent primer for this conversation. In addition to their points, I offer the following questions to consider as we think about the human capital we need in our officer corps in the decades ahead.

First, are the returns to experience linear? In other words, should we assume that more tactical experience is always better, or is there a point at which the benefits to the officer of more tactical experience are smaller in comparison to the development offered by a broadening position?

Second, should we strive for our leaders of the numerous battalions and handful of aviation brigades to have similar backgrounds, or are there benefits to incorporating officers with diverse experiences in other types of organizations? Stated differently, do broadening assignments complement or compete with tactical assignments?

Third, if we value tactical experience in the selection of brigade commanders, are we adequately preparing these officers with the most potential for flag rank to succeed in operational and strategic-level assignments? This question centers on two apparently competing mandates, ensuring adequate specialization for our field grade leaders, while also valuing broader professional development for our strategic leaders. Ultimately, effective strategic leadership requires both.

Lastly, if we overwhelmingly value experience over broadening, are we carefully preparing the force for positions that most officers will not have? After service as a major in a battalion and/or brigade, the vast majority of aviation field grade officers serve in positions that run the Army as an institution or develop strategy. The questions above center on a fundamental debate regarding how we should balance experience and training with the development of intellectual capital in our officer corps, a discussion I commend the authors noted above for initiating in this publication.

Best, LTC Lee Robinson Advanced Strategic Planning and Policy Program Fellow University of Georgia School of Public and International Affairs



Aviation Digest thanks LTC Robinson for his letter to the editor. Aviation Digest is always eager to hear the thoughts and opinions of our readers, as well as their recommendations. We truly appreciate our readers taking the time to share viewpoints, comments, concerns, and kudos with Aviation Digest.

To facilitate productive conversations on topics, we need your input. Pick up a pen or grab your keyboard and write us a letter explaining your opinion.

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