

The sun sets behind a C-17 Globemaster III 17 November 2008 at Joint Base Balad, Iraq, as soldiers begin boarding. C-17 aircraft can carry payloads up to 169,000 pounds and can land on small airfields. The C-17 in the photo was deployed from the 437th Airlift Wing at Charleston Air Force Base, South Carolina.

Air Force Leaders Take Note The Army is Changing

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The United States Army is changing. Visibly, the physical size of the force is reducing dramatically. Doctrinally, new manuals are both addressing a hybrid threat via unified land operations and reshaping leadership focus through mission command. Understanding these changes is critical for the next generation of Air Force decision makers. The Air

Force must focus leadership decisions to match each of these changes through procurement, doctrine, and teamwork in order to leverage lessons learned and to codify relationships forged during thirteen years of shoulder-to-shoulder combat operations. The interaction between Gen. Omar Bradley and Gen. Elwood "Pete" Quesada in World War II provides an excellent



(Photo courtesy of the National Archives and Records Administration) Gen. Dwight D. Eisenhower (right) talks with Lt. Gen. Omar Bradley (center, First Army) and Maj. Gen. Pete Quesada (9th Air Force) about the heavy bomber attack that preceded Operation Cobra, a coordinated attack to break through German lines conducted 25–31 July 1944, seven weeks after the combined allied invasion of Normandy, France.

example of how cooperation and mutual understanding benefit the land and air arms of the United States military. The two generals realized operating in a vacuum, independent of one another, would not work. Their cooperation was in the best interest of both parties, and it produced success. The stakes are high, and America's military stands at a crossroads. The Army and Air Force rely on each other to be effective. Understanding is the first step in building an effective joint team.

Mutual Respect— Shared Understanding

The mutual respect between mid-level Army and Air Force officers is at a pinnacle. Air Force field grade officers at the Army's Command and General Staff College (CGSC) are surrounded by Army peers who have served multiple twelve- or fifteen-month deployments in Iraq and Afghanistan. Interviews with these airmen suggest a tremendous respect for soldiers who have sacrificed and served with diligence. Nearly every Army field grade officer lost a friend, a subordinate, or a mentor. Their families endured years of worry and absence while they defended the Nation. Army officers usually attend CGSC after commanding at the company level. They were captains in charge of organizations with more personnel than many Air Force squadrons. Many managed fourteen M-1 tanks or M-2 Bradley Fighting Vehicles, or a hodge-podge fleet of vehicles resistant to improvised explosive devices. Some were in charge of entire combat outposts. They directed soldiers to conduct combat patrols and then held memorials when some did not make it back. They are experienced, and their experiences command respect.

This feeling of respect earned by Army officers is not one-sided. Army officers know the Air Force has done its part. Many of them tell war stories that capture life-saving actions by airmen. Statements like, "I love my joint terminal attack controller;" "when I heard the jets, I knew we'd be safe;" and "the Air Force saved us" are commonplace. Soldiers are thankful for ten-minute troops-in-contact close air support (CAS) response times. They appreciate low-altitude shows of force that drive off the enemy. They know airmen gave their lives, or were willing to give their lives, while trying to get ordnance on target. They also sense a strong dedication by airmen who strive to provide skilled, agile combat support. Young Army field grade officers trust the Air Force.

This feeling of mutual respect and trust produces dividends. For example, Army and Air Force field grade officers seem to have an uncommon recognition of the each other's joint spending needs. Army officers jest about the F-35's long procurement process. Nevertheless, they want the Air Force to have this premium fighter; they want to maintain the nation's one-sided airpower advantage. They are open-minded about other spending projects, like the purchase of a new aerial refueling tanker. After receiving an explanation of why the new tanker is necessary, most Army field grade officers clearly understand and support the need. Air Force officers display similar tendencies.

Recent budget cuts are forcing the Army to change the way it trains. Air Force field grade officers recognize that actions such as restricting the training use of combat vehicles, limiting training ammunition, and reducing the number of soldiers who attend important schools significantly affect combat capability. The Army and Air Force want each other to be highly proficient. The trust and respect earned over the last thirteen years opens the door to compromise. Compromise often leads to the best solution.

Historical Precedence— Generals Bradley and Quesada

The air and land components have compromised before. During World War II, Gen. Bradley commanded First Army. His Army Air Corps counterpart and the commander of IX Tactical Air Command was Gen. Quesada.¹ Thomas Hughes, author of *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II,* summarizes their relationship: "The two had a common zeal to win the war and to ignore the bitter history of air-ground animosity."²

Bradley and Quesada helped enable the effective innovation of CAS during World War II. At the outset of the war, the United States did not have the capability to conduct efficient CAS. During the interwar period, political maneuvering and a focus on strategic bombers took the Army Air Corps in a direction away from CAS. Dr. Richard Muller, professor of airpower history at the U.S. Air Force School of Advanced Air and Space Studies, states, "The strides made in aircraft technology during the 1930s virtually expunged close air support from the Air Corps' roster of capabilities."³ Gen. Henry "Hap" Arnold believed CAS should not be the Air Corps' focus. He felt even the name—close air *support*—indicated the Air Corps was subsidiary to ground forces. Arnold placed CAS sixth on his prioritized list of air tasks.⁴

Quesada and Bradley overcame these hurdles. By the end of World War II, CAS operations became a key element in the defeat of Axis forces. An example from D-Day helps demonstrate this claim and shows the fruit of the cooperation between Bradley and Quesada. Close air support, or tactical aviation, was a key enabler of the breakout from the beaches of Normandy. Specifically, CAS helped link the two American footholds at the Utah and Omaha Beaches.⁵ The town of Carentan, located thirty miles inland, quickly became a key piece of terrain. Controlling Carentan would bridge the two American beachheads and avoid a potentially nightmarish fight in regions flooded by the German defenders.⁶ Securing Carentan became the task of the 101st Airborne Division. Unfortunately, the lightly equipped 101st faced Germans equipped with much heavier weaponry.⁷ Tactical airpower provided the 101st the firepower it needed. Planes from Quesada's command spotted a two-division-sized group of Germans known as *Kampfgruppe* Heinz. P-51 and P-47 aircraft brought these German reinforcements to a near standstill.8 Even Field Marshall Erwin Rommel recognized

the impact of U.S. tactical air support. In a letter to his wife, he lamented, "The enemy's air superiority has a very grave effect on our movements. There's simply no answer to it."⁹ *Kampfgruppe* Heinz eventually limped into Carentan, but most of the force was more than a week late.

The Germans had to evacuate Carentan because of CAS's decisive role. The German army commander, Field Marshal Gerd von Rundstedt, believed they lost Carentan due to the "unbearable" air attacks making daytime movement "impossible."¹⁰ Quesada's fighters answered 184 CAS requests during the first week following the invasion.

Tactical aviation grew rapidly from 1941–1945. The relationship between Bradley and Quesada facilitated that growth. Throughout this discussion, other examples from their excellent working relationship will shed light on how Air Force leaders can focus decision making to support the rapidly changing Army.

Army Size and Restructuring Requires Air Force Critical Thinking

Sometimes innovation is a luxury; sometimes it is a requirement. The Army is drastically reducing its size, which is driving significant changes in organization. Although some of these changes are required, the Army is using the opportunity to innovate. Air Force leaders must understand these changes and think critically about how to support future Army operations. On 30 July 2013, U.S. Army Forces Command issued a warning order (WARNO) regarding brigade combat team (BCT) reorganization. The WARNO reiterated an Army end strength of 490,000 soldiers by the end of fiscal year 2017.¹¹ The order goes on to provide specifics on a new force structure and the number of BCTs—the Army's primary fighting element. When considering these new numbers, it is important to consider remarks by former Secretary of Defense Chuck Hagel. On 31 July 2013, Hagel indicated that sequestration budget cuts could drive the planned end strength to 380,000 soldiers.¹² These changes are significant. What are they? And, how do they impact the Air Force?

Over the past two years, the Army significantly reduced its active strength from approximately 570,000 soldiers to just under 495,000—a loss of 75,000 personnel. As this is happening, the Army is shifting to its 2020 BCT design.¹³ The Army has three categories of ground maneuver BCTs: infantry, armored, and Stryker. Maneuver BCTs are the Army's primary fighting elements and land-space owners. Under Army 2020, infantry and armored BCTs will receive an additional maneuver battalion. This increases a brigade commander's battalions from two to three and correspondingly drives up combat power. (Stryker BCTs already possess three maneuver battalions and will remain unchanged.) However, these forces are not new elements; they are coming from other organizations. The Army is reducing the number of BCTs from forty-five to "an interim solution of thirty-three."14 The BCT breakdown will be twelve armored, fourteen infantry, and seven Stryker. To complement these changes, the Army is also dispersing and reorganizing engineer and artillery assets with the goal of empowering the BCT commander with the assets directly under the commander's control. Finally, division structures are also changing. Although there is not one specific formula, the 4th Infantry Division (4ID) provides a model. After the restructuring, 4ID will employ one of each type of BCT—Stryker, infantry, and armored.

The implications of these changes are difficult to predict. Staffing fewer BCTs reduces the forces available to rotate through a theater for a sustained campaign. However, this is offset by each BCT's increased combat power, which translates into a bigger area of operations and/or the ability to counter more enemy forces. In the case of 4ID, the new structure provides excellent flexibility—especially against a hybrid threat. 4ID's armored BCT provides tremendous firepower and mobility—but takes time to arrive in theater. The division's infantry BCT provides a quickly deployable force well suited for urban operations—but without armored protection. The Stryker BCT—with its light armored vehicles and numerous dismounted soldiersbrings elements of both. The inherent fire support and engineering assets round out the BCTs' and division commander's employment capabilities.

How does the Air Force respond to these changes? Looking back to actions taken by generals Bradley and Quesada provides a framework for critical thinking. During World War II, the Air Corps needed to innovate tactical support aviation quickly. One of the ways it was able to do this was by relying on existing technology. Unlike other World War II aviation tasks, such as strategic bombing or fighter escort, CAS did not rely on a specific technology to achieve success.¹⁵ The development of a specific airframe for a specific task requires a lengthy timeline or the commitment of significant wartime resources. Two examples of this are the four-engine strategic bomber and the high-performance fighter aircraft designed as escorts. The United States developed the B-17 and P-51 *s*pecifically to facilitate the daylight bombing of European Axis powers.¹⁶

World War II CAS did not face this limiting requirement. Engineers originally designed the P-47 Thunderbolt as an interceptor. The aircraft never excelled in this role, but soon became one of the Army Air Corps' best and most prolific close support aircraft.¹⁷ In fact, after P-47s from Quesada's IX Tactical Air Command began providing armed tank column support, an army division commander stated, "Many veteran tankers now refer to the P-47 as the best and only effective antitank weapon."¹⁸ The Germans agreed. They began calling the fighters Achtung Jabos (most terrible weapon).¹⁹ The P-47s thrived in their new role. A German soldier attempting to counter the Normandy invasion complained, "Yah, for eleven days I saw seven Luftwaffe and seven thousand Thunderbolts."20

What techniques and equipment does the Air Force currently possess that will support the new Army structure? In the 2012 *Army Training Strategy*, the document's authors close by stating, "Army leaders ... must recognize that there are no predetermined solutions to problems."²¹ Obviously, this is true for Air Force leaders as well. Can the Air Force change the way it currently employs its systems? Existing training opportunities should be maximized; tactics, techniques, and procedures from Iraq and Afghanistan should be studied; and modifications to current equipment should be considered.

For example, when an Army BCT attends training at the National Training Center in California, the Air Force normally supports the exercise by conducting a Green Flag Exercise. In the past, Green Flags employed a single type of aircraft from a single squadron. The current Green Flag goal is to provide at least two airframes, unmanned aircraft, and electronic warfare assets.²² Although this training is excellent, it does not completely maximize what the Air Force can provide. Imagine an exercise where the Air Force participated in each step of the process. Mobility aircraft like C-130s could airdrop an infantry element at the outset of the engagement. Air Force fighters, bombers and unmanned aerial systems could provide the initial firepower the light infantry lacks. C-17s would follow with Strykers, a few heavily armored vehicles, and attack helicopters. After fighting a conventional force-on-force engagement, the scenario would transition to counterinsurgency warfare typical of the hybrid threat many expect to face. Air Force pilots would practice shows of force or nontraditional intelligence, surveillance, and reconnaissance. The Air Force and the BCT would fight together from home station to mission completion. Just like Quesada's P-47, the Air Force has all of these assets. Each of these platforms already conducts annual training. Each of these platforms already spends precious defense budget dollars to train. Airdropping or airlifting the entire BCT to California is not possible, and CAS might not be available every day of



(9th Air Force photo courtesy of the National Archives)

A P-47 Thunderbolt piloted by Capt. Raymond M. Walsh of the U.S. 406th Fighter Group is silhouetted against an exploding Nazi ammunition truck he just strafed 23 June 1944 behind enemy lines in Normandy, France. The image was taken by his wingman's gun camera.

the BCT's scenario. However, the benefits gained from practicing even with small company-sized elements would pay huge dividends in future operations.

In his thesis on CAS in World War II, Maj. Scott Hasken stresses the importance of detailed liaison as an aspect of any operational approach:

It was also in World War II where commanders began to learn that planning for CAS made a significant difference in the execution of air-to-ground operations. Those battles and engagements that were planned thoroughly with the integration of the Air Corps in a ground attack role inflicted heavy damage on troops and material. These coordinated attacks also had a significant psychological impact on the enemy, and demonstrated tremendous potential as a way to conduct more aggressive joint operations. Conversely, only marginal effects were achieved against enemy forces in battles where there was little coordination between the Air Corps and the ground forces commander.²³

Hasken's comments seem intuitive given the luxury of hindsight and current joint doctrine. However, the focus on detailed liaison was a new concept in the early 1940s. It helped enable the World War II innovation of CAS. What is the corollary to today? Have the Army and Air Force captured the lessons learned during thirteen years of war? Armed with facts about the "new" Army and with opportunities for continued joint training, Air Force leaders can transition some viable techniques while avoiding stagnation by resting on others.

Army Doctrinal Changes Impact Air Force Leaders

The Army is not just changing its size and structure—doctrine is changing too. In 2012, the Army began releasing a new series of doctrine publications.



(U.S. Air Force photo by Senior Airman Kenny Holston) A U.S. Air Force A-10 Thunderbolt II demonstrates its air-to-ground capabilities 12 November 2011 during the 2011 "Aviation Nation" open house on Nellis Air Force Base, Nevada.

The Army doctrine publications (ADPs) and Army doctrine reference publications (ADRPs) represent a distinct change from the Army field manuals. ADPs are short, efficient documents that provide an overview of a specific doctrinal concept. ADRPs provide significantly more amplifying information and guidance. As the Army changed its doctrine format, it took the opportunity to codify two major doctrinal approaches: unified land operations (ULO) and mission command (MC).

As detailed in ADP 3-0, Unified Land Operations, ULO "describes how the Army seizes, retains, and exploits the initiative to gain and maintain a position of relative advantage in sustained land operations through simultaneous offensive, defensive, and stability operations in order to prevent or deter conflict, prevail in war, and create the conditions for favorable conflict resolution."²⁴ ULO is the Army's means of nesting its doctrine in Joint Publication (JP) 1, Doctrine for the Armed Forces of the United States, under the theme of unified action.²⁵ ULO encompasses four main ideas: initiative, the Army core competencies, decisive action, and mission command.

This article is not conducive to a complete description of ULO or its components. However, Air Force field grade officers need a basic understanding of the doctrine to support Army operations. The first element, initiative, is simple; it gives all operations "the spirit, if not the form, of the offense."²⁶ Although Army formations may be defending, they will defend with an offensive mindset. Seizing the initiative is a critical component of ULO.

Decisive action is the simultaneous and continuous combination of offensive, defensive, and stability operations. (Within the United States, defense support of civil authorities replaces stability.) Decisive action doctrine assumes the Army will conduct offensive, defensive, and stability tasks simultaneously against a hybrid threat. Many doctrinal experts use the concept of a three-block war as an example of decisive action. Imagine a three-block area of a city during operations where a company commander has one platoon conducting an offensive cordon and search, one platoon defending a combat outpost, and a third platoon helping restore essential govern-

ment services. This concept could apply to a town, a province, or an entire country.

There are two Army core competencies—combined arms maneuver (CAM) and wide area security (WAS). CAM uses all elements of combat power to defeat the enemy with offensive and defensive tasks. CAM relies on the defeat mechanisms—destroy, dislocate, disintegrate, and isolate—to accomplish the mission. WAS, on the other hand, seeks to protect populations and infrastructure. WAS focuses on stability and leverages stability mechanisms—control, compel, influence, and support—to achieve the mission.

In the simplest of terms, a review of the initial days of major combat operations, during Operation Iraqi Freedom provides an example of CAM. In contrast, the counterinsurgency effort during the remainder of the conflict is an example of WAS.

Finally, mission command is ULO's guiding principle. MC is the Army counterpart to the Air Force's centralized control/decentralized execution command model.²⁷ MC has six basic principles: build teams through trust, create a shared understanding, provide a clear commander's intent, use mission orders, and accept prudent risk. At its root, the distinguishing difference between MC and previous doctrinal approaches is increased empowerment of subordinate leaders. Higher echelon leaders issue orders to lower echelons with the who, what, when, where, and why. However, under MC, they are careful not to tell subordinate leaders the how.

Why are these doctrinal changes important to the Air Force? Quesada and Bradley provide another applicable case study. One example of their cooperation in doctrinal initiatives was the birth of the modern-day air liaison officer. During discussion between the two generals, Quesada requested permission to install common radio sets in some of Bradley's tanks. Bradley agreed. Quesada then placed a pilot in each of the radio-equipped tanks and scheduled aircraft to operate in waves over their locations.²⁸ The results were amazing. Due to this innovation, air support requests that had often gone unfilled or took hours for a response at the beginning of World War II were processed quickly, and the ability to attack targets in close proximity to friendly forces improved dramatically. Air support to ground operations was greatly improved.

This advance reached a pinnacle of success during the Third Army's push to Bastogne, Belgium, during the Battle of the Bulge (16 December 1944-25 January 1945) to relieve the weary 101st Airborne Division, which was surrounded by German forces. Army tankers met significant German resistance near the town of Remichampgane. As a consequence, U.S. forces radioed for air support, and P-47 "Thunderbolts" arrived overhead only twenty minutes later. The aircraft dropped ordnance that destroyed German positions within hundreds of yards of the friendly front line, enabling the American tanks to forge ahead.²⁹ This incident, together with many others like it, prompted one general defending in Bastogne to remark, "The fighter-bombers did work equivalent to the employment of two U.S. Infantry Divisions."³⁰ This was high praise, given the complete lack of U.S. CAS capability at the outset of World War II.

How does this history apply to the current situation and recent Army doctrinal changes? First, it is easy to trace Bradley and Quesada's plan to the current JP 3-09.3, *Close Air Support*, requirement for detailed CAS integration.³¹ Second, though the Air Force can employ elements of MC, it cannot completely adopt the concept due to inherent constraints on some of its components. And, third, the Army employment of ULO may require the Air Force to make some significant changes. The Air Force already uses MC in numerous environments. When a strike package mission commander is tasked to destroy a target, he or she is told the what and when, but definitely not the how. On the other hand, Air Force nuclear missile operators must work under tight centralized control. Numerous other similar examples of Air Force organizations exist for which MC is not feasible, so the bottom line is this: the Air Force can adopt some elements of MC but not the entire doctrine.

For example, the Air Force does not have sufficient airframes to align a four-ship formation of F-16s with a specific Army battalion, so the Air Force needs centralized control of those aircraft in order to maximize their effectiveness. Consequently, the Army's approach to ULO will influence the Air Force. As the F-35 and F-22 become the backbone of the fighter force, innovative techniques and smart procurement can ensure tactical air support retains its current outstanding capability. The Air Force continues to ramp up the number of MQ-9 Reaper unmanned aerial systems in the fleet. In a permissive environment, the MQ-9 is an excellent CAS platform. The increased number of aircraft, long-on-station time, and significant ordnance load of the MQ-9 are a powerful combination for future hybrid-threat operations. The MQ-9 is a multidimensional weapon system with a wide variety of uses. As Air Force field grade officers influence procurement decisions, the MQ-9 is an excellent model to follow.

The Air Force needs to replace its aging T-38 jet trainer fleet. The new trainer should follow the MQ-9 model as a multidimensional platform capable of a variety of missions. Trainer-X is an excellent example of an opportunity for Air Force officers to critically consider ways to solve multiple needs with a single solution. A new trainer is required; however, what else does the joint force need? Pilots selected to fly the F-22 and F-35 require advanced pretraining because of their new aircrafts' capabilities and the lack of two-seat trainer variants. Additionally, flying the F-22 and F-35 for some missions does not make sense. Using F-22s as alert aircraft or for continental U.S. combat air patrols is costly and taxes a very limited resource. Finally, the F-22 and F-35 are often flown in an adversary role to simulate threat aircraft. This use of costly aircraft as "Red Air" wastes resources. Can the new trainer accomplish all three of these missions? Can the Air Force purchase an aircraft capable of training that also possesses a combat capability? This combat-coded trainer may not

be feasible, but it is one example of the critical thinking young Air Force field grade officers need to support a rapidly changing Army.

Additionally, many are pushing for the inclusion of MC in joint doctrine. If included as another option to centralized control/decentralized execution, Air Force leaders must make smart decisions on when and where to apply the new joint doctrine.

Conclusion—Sustain the Momentum

The connection between the Air Force and Army is at a high point. Friendships and sturdy working relationships

forged over the last thirteen years of combat provide a stepping-off point for future operations. Both services have needs, and both services need each other. The Army is changing its structure and size. It is also changing its doctrine. A smaller Army with powerful BCTs employing unified land operations via mission command requires unique, well-thought-out support. The relationship between Bradley and Quesada provides the historical structure and "how to" precedent. The generals worked together to find solutions that benefited both the air and land arms of the U.S. military. Young Air Force and Army field grade officers should follow their example.

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