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A Matter of Trust
*Close Air Support Apportionment
and Allocation for
Operational Level Effects*

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School of Advanced Airpower Studies

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Abstract

Doctrinal differences over the employment of airpower are as old as military aviation itself. One particular area of contention has been close air support (CAS). The two primary issues related to CAS are its command and control and responsiveness. Soldiers have argued that ground commanders should control their own aircraft, because ownership assures that airpower directly responds to their needs. Airmen have maintained that airpower should be centralized under a single air commander to allow for its flexible theaterwide employment. During World War II, Korea, Vietnam, and Desert Storm, ground commanders demanded greater influence over airpower employment. Concurrently, the Air Force disagreed with the Navy and Marine Corps over centralized versus decentralized control of air assets. These two issues of command and control and responsiveness are embodied in the process of apportioning and allocating CAS. In all conflicts since World War II, the United States has had the luxury of an overabundance of air assets. Despite a façade of centralization, airpower was parceled out to fill nearly everyone's needs. This avoided the need for any difficult choices. This study follows the history of CAS since World War II to examine how it has been apportioned and allocated in the past. It then examines the current joint air operations process. It is the contention of this study that the current system, rooted in its historical past, does not fully employ CAS to its optimum potential. The historical view of CAS has been as a tactical measure, with limited localized effects. However, properly integrated and coequal with the ground scheme of maneuver, it can have operational level effects. This study examines two theories of the use of CAS at the operational level and then recommends changes to the view of CAS and the process for its apportionment and allocation.

About the Author

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Chapter 1

Introduction

Power is not revealed by striking hard or often, but by striking true.

—Honoré de Balzac

Ever since the First World War when the first fighter pilot descended to strafe the enemy trenches on the western front while returning from a dawn patrol, close air support (CAS) has been a constant element of modern warfare. Although it did not have a decisive impact on the course of the war, the issue of ground attack by aviation was the focus of a controversy between the air and ground arms. The traditional land power advocates wanted the continued subordination of airpower to the will of the ground force commander. The airpower zealots sought its freedom from such tethers to conduct independent and war-winning operations. The airpower moderates sought tactical support operations with greater flexibility for mass attack arising from centralized control. Even in the current era of gentlemanly jointness, elements of this dichotomy continue. Ground force commanders decry a lack of air support. US Air Force commanders contend that the battle can be won with strategic attack or that they can best support the US Army through the interdiction of enemy men and materiel.

This study focuses on a narrow section within this larger debate. Specifically, the issue is close air support and, in particular, how best to apportion limited CAS assets within a theater to achieve the objectives of the joint force commander (JFC). The thesis of this study is that the current joint doctrine concerning the apportionment of CAS assets is insufficient (and possibly counterproductive) for the accomplishment of campaign goals. Before developing the framework for this analysis, it will be beneficial to begin by examining what close air support is and what is meant by apportionment.

Before defining close air support, it is best to determine what is meant by the generic term *support*. Joint Publication (Joint Pub) 1-02, *Department of Defense Dictionary of Military and Associated Terms* defines support as: "1. The action of a force which aids, protects, complements, or sustains another force in accordance with a directive requiring such action. 2. A unit which helps another unit in battle. Aviation, artillery, or naval gunfire may be used as a support for infantry. 3. A part of any unit held back at the beginning of an attack as a reserve. 4. An element of a command which assists, protects, or supplies other forces in combat."¹ Close air support is a subset of military support in general and its application may fall within all

four possible definitions. In the current vernacular of joint doctrine, however, there is more than an implied subordination of close air support to the desires of the ground force commander. This is a problem for the true integration of the air and ground efforts and will be addressed further in this study.

What is close air support? The term *close air support* can be used to include all air attacks that are coordinated with the supported ground forces. High-altitude bombing of enemy positions by heavy bombers in advance of friendly forces or attack helicopter support of troops in contact with the enemy can be fairly called close air support.² Col John A. Warden III takes a similarly broad view of close air support as, "Any air operation that theoretically could and would be done by ground forces on their own, if sufficient troops or artillery were available."³ This definition, although useful, connotes the old view of ground attack aviation as nothing more than flying artillery. There in lies the rub.

Joint doctrine is supposed to offer "a common perspective from which to plan and operate, and fundamentally shape the way we think and train about war."⁴ A comparative examination of joint CAS doctrine to service doctrines, however, shows some discrepancies. Joint Pub 1-02 defines close air support as, "Air action by fixed- and rotary-wing aircraft against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces."⁵ This recent joint iteration includes Army and Marine attack helicopters as CAS assets for the first time. It also seems to portray a more balanced approach to the use of air and ground actions. This coequality is largely absent in the individual service approaches to CAS.

Looking at the service perspectives on CAS, we begin with the US Army. Field Manual (FM) 100-5, *Operations*, which states that "close air support (CAS) missions support land operations by attacking hostile targets close to friendly ground forces. CAS can support offensive operations with preplanned or immediate attacks." In these first few lines, CAS could easily be replaced by the word *artillery*. It further states, "CAS can enhance ground force operations by delivering a wide range of weapons and massed firepower at decisive points." Again, read bigger artillery. The glimmer of hope, from this author's perspective, for the proper application of CAS emerges in the final lines of the Army's description of CAS. "It can surprise the enemy and create opportunities for the maneuver or advance of friendly forces through shock action and concentrated attacks. CAS can also protect the flanks of friendly forces, blunt enemy offensives, enhance economy-of-force operations, and protect the rear of land forces during retrograde operations."⁶ The shock action of CAS allows for maneuver, but nothing is said about the possibility of maneuver allowing for the shock application of CAS.

The US Navy's view of CAS is that it "supports amphibious and land operations with massed firepower, requiring detailed integration with the ground scheme of maneuver. CAS requires close coordination during tasking, planning and execution. CAS is a force multiplier, enabling the supported commander to mass combat power decisively. Traditionally, the Navy has

been a provider of CAS, but can be a recipient of CAS as well, in support of naval operations."⁷ CAS can again be equated with artillery, or perhaps naval gunfire. There is the dim hope of the integration with the ground scheme of maneuver, but many airmen would fear that the ground scheme is driving the operational train. Finally, there is an obligatory, budgetary statement as to the Navy's need to continually provide CAS, as they have always done in the past.

The US Air Force's perspective on CAS is equally disappointing. Air Force Manual (AFM) 1-1, *Basic Aerospace Doctrine of the United States Air Force*, defines CAS as:

The application of aerospace forces in support of the land component commander's objectives. At times, CAS may be the best force available to ensure the success or survival of surface forces. Since it provides direct support to friendly forces in contact, close air support requires close coordination from the theater and component levels to the tactical level of operations. Close air support should usually be massed to apply concentrated combat power, should create opportunities, and should be planned and controlled to reduce the risk of friendly casualties.⁸

The US Air Force continues to be reluctant to provide CAS, considering it the least effective application of airpower.⁹ If truly given the choice, the Air Force would only do CAS in extremis. Its effects are considered the briefest of any force application mission and have the least impact at the campaign level. This is because the Air Force, despite its talk of coordination with the land component commander, views CAS as strictly a tactical mission. Close air support can prepare the conditions for or reinforce ground successes, which continues the subordinate role of airpower. It is only in the final view lines of AFM 1-1's presentation of CAS that we see hope for the proper integration of CAS. "In effect, close air support can provide another maneuver element for employment in cooperation with surface combat elements."¹⁰ If CAS is another maneuver element, then perhaps it may be *supported by* the ground maneuver element as opposed to *supporting* it. That would be true equality and provide a better way to accomplish the JFC's mission.

Finally, the US Marine Corps considers CAS its bread and butter mission. Fleet Marine Field Manual (FMFM) 5-41, *Close Air Support*, states that "the Marine Corps fights using maneuver warfare through the application of combined arms. CAS is fully integrated with other supporting arms to support the Marine air-ground task force (MAGTF) commander's plan. The MAGTF commander uses CAS at the decisive place and time to achieve local combat superiority or take advantage of battlefield opportunities. *CAS is employed for operational effectiveness and is used to weight the main effort*" (italics added).¹¹

There are several salient points here for our discussion. The first is that the Marines plan the use of combined arms in an integrated fashion. This would tend to imply a coequality, however, CAS is still a supporting arm. The most important item for future reference is that the Marines view CAS for its operational effectiveness and its applicability to the weight of the main effort. Further, the person selected to be the MAGTF commander is often an aviator. These are ideas which are lacking in the other service's interpretations of CAS.

Having examined all these different joint and service perspectives, it would be useful at this point to synthesize them into a form that will be used throughout the remainder of this work. The fundamental hypothesis is that CAS should be viewed as a force at the operational level of war, not simply as a single A-10 striking a green jeep in the tree line. Its application should be coordinated beginning at the operational level and down to the tactical, not vice a versa. CAS should be massed against the enemy's decisive points. Its psychological and physical shock effects can therefore work as force multipliers. Airpower, and CAS in particular, is itself a form of vertical maneuver and envelopment. It must therefore be seamlessly integrated with the maneuver of the ground forces, such that the two are synergistic. The ground maneuver serves to dislocate the enemy for CAS's destruction, or CAS dislocates the enemy for destruction by the ground forces. The relationship and magnitude of the two will depend on the particulars of the situation. The point is that CAS should not always be subordinated to the ground scheme of maneuver.

Now that we have fully described the nature of close air support, we must now deal with how it should be apportioned at the theater level. Apportionment, in its simplest sense, is the act of dividing and assigning things according to some plan or proportion. In the era of only 20 USAF fighter wing equivalents and for the purpose of this study, apportionment is how to best use limited CAS assets to accomplish the JFC's military objectives. According to Joint Pub 3-56.1, *Command and Control for Joint Air Operations*, in the joint lexicon air apportionment is, "The determination and assignment of the total expected effort by percentage and/or by priority that should be devoted to the various air operations and/or geographic areas for a given period of time."¹² Within this definition lie three issues. The first is the importance of CAS as a mission within the theater objectives of the joint force. Which is more important at the time, air superiority, strategic attack, air interdiction, et cetera? The second is how many of the CAS-capable aircraft of the joint air operations force should be devoted to the CAS mission at any one time. The third is how those CAS sorties should be divided within the theater. Should each division receive an equal percentage, should they be prioritized among divisions and distributed in decreasing percentages, or should the ground element comprising the weight of effort for the campaign receive the overwhelming bulk? This study answers these questions.

To form the basis of analysis regarding these questions, we must first examine the historical background. Chapter 2 explores how CAS has been apportioned in previous historical joint campaigns. Chapter 3 describes how the current process operates for the apportionment of close air support within an area of responsibility (AOR), paying particular attention to the role of the joint force air component commander (JFACC). It relies heavily on current service and joint doctrine. Chapter 4 compares two different military theorists, Liddell Hart and Tukhachevskii, concerning their views on the employment of CAS as an operational asset. Finally, in chapter 5, the author summarizes the argument and makes recommendations regarding the

apportionment and employment of close air support as an operational level asset in the future.

Notes

1. Joint Publication (Joint Pub) 1-02, *The Department of Defense Dictionary of Military and Associated Terms*, 23 March 1994.
2. Peter C. Smith, *Close Air Support: An Illustrated History, 1914 to the Present* (New York: Orion Books, 1990), vii.
3. John A. Warden III, *The Air Campaign: Planning for Combat* (Washington, D.C.: Pergamon-Brassey's, 1989), 87.
4. Joint Pub 1, *Joint Warfare of the US Armed Forces*, 11 November 1991, 6.
5. Joint Pub 1-02.
6. Field Manual (FM) 100-5, *Operations*, June 1993, 2-19.
7. Joint Pub 3-09.3, "Joint Tactics, Techniques, and Procedures for Close Air Support," Reformatted Draft Pub, 17 February 1995, A-1.
8. Air Force Manual (AFM) 1-1, *Basic Aerospace Doctrine of the United States Air Force*, vol. 1, March 1992, 13.
9. Ibid.
10. Ibid.
11. Fleet Marine Field Manual (FMFM) 5-41, *Close Air Support and Close-in Fire Support*.
12. Joint Pub 3-56.1, *Command and Control for Joint Air Operations*, 14 November 1994, GL-5.

Chapter 2

The History of Close Air Support

Those who seek to plan the future should not forget the inheritance they have received from the past, for it is only by studying the past as well as drawing for the future that the story of man's struggle can be understood.

—Sir Winston Churchill

Examining military history is not meant to provide cookie-cutter solutions based upon past experience. It is, however, meant to provide insights to what has and has not worked in the past. Clausewitz saw military theory and military history as intertwined. He defined military theory as an analytical investigation leading to a close acquaintance with the subject; applied to military history. Its purpose is to look at the ends and means and phases of warfare in a critical inquiry. Theory should, therefore, be limited by experience (actual history). The knowledge required is simple, but difficult to apply, and when applied it is done as a natural talent, from within, not as a thought process from learned activity. Knowledge must be absorbed into the mind that it almost ceases to exist in a separate, objective way. He sees from history (the Prussian generals imitating Frederick the Great) the failure awaiting commanders as they imitate using routine versus commanders who use talent and genius (the imagination) and succeed in the new and different situation of battle in which they are involved.¹

With these thoughts in mind we will now critically inquire into how CAS was apportioned in previous wars. Because of CAS's limited impact on the ground war, World War I is briefly addressed. However, excellent examples are available from World War II, Korea, Vietnam, and Desert Storm. It is not the intention of this chapter to cover every operation in every campaign, but to focus on the major campaigns in which large air and ground forces worked in concert to achieve a common military objective.

World War I

The air arms of the First World War were dominated by tactical aviation and the concerns of the ground commander. During the Great War, however, the role of the air weapon was not a major one. Apart from the role of observation, it did not substantially figure in the development of the positional warfare on the western front. It did, however, contribute to the

maintenance of the stalemate. By the end of the First World War, the airplane had shown promise for the future, as an element of combined arms warfare. It displayed a flexibility of application, a degree of mobility, and a psychological impact that surpassed the expectations of even its prewar supporters.² In the interwar years, however, the growth of CAS theory stalled while the doctrine of daylight high-altitude precision bombardment grew to maturation.

World War II

In 1940 Air Corps FM 1-5, *Employment of Aviation of the Army*, noted that “fighters were ‘not suitable’ for ground attack ‘other than personnel or light material’ except for temporary employment during emergencies.”³ It further, rather bluntly, stated, “Support aviation is not employed against objectives which can be effectively engaged by available ground weapons within the time required. Aviation is poorly suited for direct attacks against small detachments or troops which are well-entrenched or disposed.”⁴

The realities of war began to soften these views. Air Corps FM 1-10, *Tactics and Techniques of Air Attack*, published in 1940, reflected the initial reports coming from Asia and Europe in which modern military aviation forces were engaged in battle. It emphasized the importance of command, control, and communications, particularly with friendly armored forces, using prearranged signals, pyrotechnic devices, and panels. Its most emphatic point was on the need for direct radio communication between armor and air units.⁵ The stunning defeat of France and initial Nazi success in Russia forced the United States Armed Air Force (USAAF) to come to grips with the problems of air support of land armies. Air operations during the 1941 Carolina and Louisiana maneuvers further highlighted the need for focused attention on future air-ground coordination and air support of the land battle.⁶ Unfortunately, the lessons were slow in being assimilated.

The 1941 maneuvers, along with additional observers’ reports from Europe, were used for a final doctrinal statement on air support. In April 1942 FM 31-35, *Aviation in Support of Ground Forces*, was more concerned with the organization than the techniques of air support. No plans or priorities for operational employment were given. CAS was clarified only by the statement that, “Air support targets on the immediate front or flanks of supported units are generally transitory targets of opportunity.”⁷ This manual attempted to create a workable ground-air support system, but did so in appearance only. Control was established by a network of air support parties, air support control centers, and an air support command, which consolidated communications between the ground forces and the air forces. This structure had the façade, but not the function of a modern tactical air control system. It was cumbersome and flawed in both concept and execution. Its major weakness was its emphasis on corps-level air support. The corps commander

and staff had their own "mini" air force on call for their use. In execution, this resulted in the tendency to be too concerned about one's own forces, to the detriment of other friendlies. Further, there was a built-in tendency to try to stem enemy air and ground attacks at the forward line of troops (FLOT), instead of striking deeper and more effectively at the enemy's rear.⁸

The attack doctrine going into the North African campaign provided that an air support command was attached to an army formation and directed by the overall ground force commander. Tactical airpower was adapted to the demands of ground battle. As such, there was no concerted effort to gain air superiority over the theater of operations.⁹ The Americans entered the Maghreb with ideas of centralized command of airpower, the primacy of air superiority, the importance of the offensive, and a low priority to ground support. Their doctrine was not substantially different from the British. The devil, however, was in the details. Luckily, the Western Desert Air Force, under Air Marshal Sir Arthur Coningham, were masters of the details. They also had the combat experience to speak authoritatively. With the change in command structure after the Casablanca Conference, reemphasized by the Kasserine debacle, Carl A. Spaatz became the air component commander and had continuous operational control over all air assets. Collocation of air and ground headquarters significantly improved coordination.

The lessons of the North African campaign were embodied in FM 100-20, *Command and Employment of Air Power*. Its first section loudly proclaimed: "LAND POWER AND AIR POWER ARE CO-EQUAL AND INTER-DEPENDENT FORCES; NEITHER IS AN AUXILIARY OF THE OTHER."¹⁰ The missions of a tactical air force were rank-ordered in priorities. FM 100-20 stated that an air campaign must consist of three phases, corresponding to the three priorities. First, gain the necessary degree of air superiority. Second, prevent the movement of hostile troops and supplies into the theater of operations or within the theater. Third, participate in a combined effort of the air and ground forces, in the battle area, to gain objectives on the immediate front of the ground forces.¹¹ This third priority, however, was extremely vague and open to a great deal of interpretation.

Operation Overlord was conducted according to the targeting priorities established by FM 100-20. However, centralized control of airpower was sacrificed due to national rivalries, doctrinal and personality disputes among airmen, and the desires of ground force commanders.¹² American concerns and distaste for Field Marshal Bernard Law Montgomery, coupled with his own preferences, led Gen Dwight D. "Ike" Eisenhower to assume and retain the role of ground force commander as well as supreme commander. Because of this dual-hatting, the air component was permanently subordinate to the ground force commander. Centralized control of airpower under the Allied Expeditionary Air Force (AEAF) was also a façade. United States Strategic Air Forces in Europe (USSTAF) and particularly Air Chief Marshal Sir Arthur Harris's RAF Bomber Command played to their own sheet of music, unless browbeaten by Ike. Luckily, air commanders at the tactical air force level, Ninth Air Force and British Second Tactical Air Force, worked together

closely. In the battles of France, the Ninth Air Force cooperated with the 12th Army Group, while subordinate tactical air commands developed very close relationships with the various supported field armies.¹³

The inherent flexibility of airpower is considered its greatest asset. To the USAAF, this meant the ability to shift the weight of effort of air assets from one target to another within its functional area. The US Army's interpretation was different. To them it meant the ability to shift resources from strategic and interdiction missions to the tactical support of troops engaged in a ground battle. Two factors kept these command, doctrinal, and definition differences from causing serious problems in the Battle for France. First, the strategic air campaign against Germany had ensured theaterwide air superiority by March 1944. Second, the prodigious industrial and personnel output of the United States guaranteed an abundance of aircraft and aircrew resources. This wealth mitigated the need for any difficult decisions as to apportionment and weight of effort. A responsive, though decentralized, tactical air control system was developed. Even though CAS was still a tertiary mission, the numbers of fighter-bombers available led to de facto operational control (OPCON) of a tactical air command by each field army. CAS was pushed forward and made continuously and immediately available to the ground maneuver units. Many times, more sorties were available than targets, with the excess released for armed reconnaissance.

Korea

The Second World War confirmed the decisive importance of airpower in tactical support of ground operations.¹⁴ Yet, the successful employment of aircraft, like that of any other military instrument, depended upon the weight of force available, the skill with which it was employed, and the suitability of the targets that were offered. The more closely air forces worked in harness with ground forces, the more effective they were.¹⁵ During World War II no one system for controlling CAS had been common in all theaters. The postwar, approved Air Force-Army CAS doctrine had originated in North Africa, been modified in Italy, and was further refined in the most extensive air-ground battles of the war, those in France and Germany.¹⁶ Different CAS systems developed in the Pacific, particularly for the island hopping campaign of the Central Pacific. The geographic separation of these theaters had precluded any disputes between the two systems. However, on the constricted landmass of the Korean Peninsula, these differences flared into a larger parochial conflict. This first post-World War II attempt at joint operations deserves more in-depth study, as it truly set the stage for our present theaterwide CAS system.

From the first day of the Korean War, the importance of fighter-bombers in a CAS role was beyond a doubt.¹⁷ United Nations Command (UNC) ground forces' weakness in field artillery, especially heavy artillery, forced UNC air

units to concentrate on close air support.¹⁸ Close air support operations provided important fire support to United Nations (UN) forces throughout the war, but particularly during the initial North Korean invasion and the subsequent Chinese intervention.¹⁹ Commenting on the service provided during the North Korean People's Army (NKPA) invasion, Gen Matthew Ridgway stated, "Our Air Force knocked out much of the enemy armor, inflicted casualties on his foot soldiers, and kept close check on his movement."²⁰

After the stalemate ensued in 1952, the war resembled operations along the western front in France, 1915–1917. Both armies took to the earth, erecting mazes of trenches, bunkers, barbed-wire systems, and minefields. The Communists dug deeper and bigger fortifications, driven in part by their fear of air attacks.²¹ The UNC relied on its firepower to prevent any sustained communist offensive and protect Eighth Army's ground positions. Tactical aviation and artillery offset communist numbers.²² In fact Eighth Army's increased heavy artillery support made close air support less important in 1952–1953.²³

Despite a large number of air assets, the command and control arrangements for airpower plagued the effectiveness and efficiency of UNC throughout much of the war. General of the Army Douglas MacArthur was the American theater and UN commander. Although he regarded tactical aviation highly, he continued his World War II practice of maintaining a theater staff that was joint and unified in name only. His principal staff officers were all Army generals.²⁴

Three American air elements conducted tactical offensive operations in Korea: the USAF's Far East Air Forces (FEAF), principally the Fifth Air Force; the 1st Marine Air Wing (1st MAW); and the US Navy's carrier air groups of the Seventh Fleet's Task Force 77.²⁵ Their integration into a theaterwide airpower system was continually troublesome. This was due to differences in service culture, perspective, and classic turf battles.

Fifth Air Force maintained control of fighter and fighter-bomber operations, while FEAF maintained centralized control of B-29 operations. The lack of a unified and integrated air campaign plan resulted in incoherent operations, some at cross-purposes. In addition, land and air campaign planning lacked coordination.²⁶ Fifth Air Force was responsible for USAF air operations in Korea and made only minor changes to the World War II post-Overlord system. Instead of having a tactical air command parallel to a field army, a numbered air force now performed that function. Fifth Air Force provided the same support for Eighth Army in Korea as IX TAC did for First Army in Europe.²⁷ General Ridgway appeared to be pleased with this arrangement when he said, "Not a day went by during my service in Korea when General Pat Partridge, commanding the Fifth Air Force, did not call me to ask, 'What can we do for you today?'"²⁸

An important asset of the UNC was the ability to deploy aircraft carriers relatively close in shore. The British Far East Fleet normally deployed two aircraft carriers in the Yellow Sea,²⁹ while the American Seventh Fleet

From the first days of the war there was intense and often badtempered debate between the ground commanders and senior officers of FEAF about the quality and quantity of close air support they received. This was heightened by Army jealousy of Navy and Marine organic air support, which the soldiers considered both more dedicated, and more professional, than that of the Air Force. The argument hinged upon the weight of Air Force effort that should be given directly to the ground forces, and at whose discretion this should be allotted.³⁷

Disagreement between the services over air assets allocation centered around the centralized control concept of the Air Force and the dedicated air assets concept used by the Marine Corps.³⁸ "A major point of contention among the services had to do with FEAF's air priorities and the quality of CAS performance."³⁹ Different views among the services as to the contributions and effectiveness of CAS produced interservice disputes.⁴⁰ This grew so severe that Army Chief of Staff general Collins filed a formal criticism of CAS operations with Air Force Chief of Staff Hoyt Vandenberg in November 1950. Collins thought the current system of cooperation and the Air Force's apparent lack of interest in ground attack missions had created an unsatisfactory situation. He sought a revision of air-ground doctrine to give field army commanders and their corps subordinates operational control of fighter-bombers on a scale of one air group per division.⁴¹ However, the basic problem was not in the system itself, but that the Air Force and the Army had not provided the trained staffs, control agencies, and communications systems to make the existing doctrine work.

At the time of the North Korean invasion, Air Force doctrine believed that interdiction should have a higher priority for CAS. This followed the guidance of FM 100-20, which was incorporated into FM 31-35, *Air-Ground Operations*. FM 31-35 stated that "the tactical air commander, in close cooperation with army group commander, determines the allocation of air effort to be made available to the separate tactical air forces for employment with their associated armies."⁴² "Thus, FEAF was doctrinally justified in assigning its own priority to CAS unless the theater commander chose to override that decision."⁴³ The theater air commander retained absolute authority over all tactical air forces. He was answerable only to the theater commander. He would assign a tactical air command or air force to support each army group and army. The lowest echelon of decentralization in determining air mission priorities would be the tactical air force, whose commander would cooperate with his ground counterpart, the army commander. They would establish a JOC, collocated with the army headquarters, to coordinate air-ground missions. In this system, CAS missions required both air and ground approval, although the actual conduct of operations remained with air officers.⁴⁴ The JOC processed tactical air requests and directed tactical air missions through the combat operations section and the tactical air control center (TACC). The tactical air request system depended upon the ground officers assigned to the air-ground operations system (AGOS), which reached down from ground army through each corps to each division headquarters. Air Force liaison officers (ALO) might be assigned to ground units to advise

Marine air wings were not attached to Marine divisions. Either aircraft wing commanders and division commanders worked on a cooperative basis or they functioned under a common amphibious task force commander or landing force commander ashore.⁵⁶

The Marines had battalion level tactical air control parties (TACP) whose communications reached directly to the TACC, whether afloat or ashore. Intermediate air officers assumed that the battalion air-ground team had already determined that artillery or naval gunfire was inappropriate or not unavailable. Upon receiving the tactical air request, the TACC evaluated its available aircraft and competing air missions but still assumed that the request should be filled as quickly as possible.⁵⁷ Navy-Marine air request and air direction systems did not involve extensive participation of intervening headquarters.⁵⁸ By eliminating the requirement that intervening ground force headquarters process requests, and by placing aircraft on station on regular schedules, the naval system ensured that strikes arrived only a few minutes after the forward air controller (FAC) made his request.⁵⁹

Concerned about the relative inaction of their own tactical air request and control system, the Marines wrested an agreement from the Fifth Air Force in May 1952 that MAG-12, a Skyraider and Corsair group, could send 12 sorties a day to the Marine division for training purposes. The allocation of the sorties then rose to 20. Eighth Army protested that the 1st Marine Division had captured part of 1st MAW and the quota system ended in December. Senior Marine air officers convinced FEAF to allow 1st MAW the first priority in answering the 1st Marine Division's air requests. The JOC sanctioned direct communications between the division and the 1st MAW.⁶⁰ By war's end the 1st MAW commanders believed that they had worked out a solid arrangement with the Fifth Air Force, but the 1st Marine Division still did not like the time delays imposed by eliminating on-station sorties.⁶¹

The significant difference between the AF-Army and Navy-Marine systems came in the degree of influence the ground commander had in requesting and conducting CAS strikes. The ground commander, however, did not have the authority to order Navy or Marine aviation commanders to allocate more aircraft to CAS missions. That authority remained with either the task force commander or the senior aviation commander.⁶²

To assure an air strike within five to 10 minutes, the Marines had combat aircraft on air alert over the front lines almost continuously. In a normal situation, the Army would have adequate time to employ the call type air-support missions which were more conservative of scarce air capabilities than were air alert missions.⁶³ The Air Force thought that strip alert was more economical and allowed for better prestrike coordination. They also argued that while the naval CAS system was good for amphibious operations, CAS should not be a substitute for heavy artillery.⁶⁴ In FEAF's judgment, the Marines devoted far too many sorties to CAS, noting that requests from Marine divisions were four times higher than those from Army units.⁶⁵ Furthermore, Gen Otto P. Weyland argued that a much higher percentage of CAS sorties was flown in Korea than in the war in Germany (30 percent

was an abundance of air assets and no air threat in the south. Similarly, Seventh Air Force was free to concentrate on CAS in the south while the Thirteenth Air Force, SAC, and the Navy struck targets north of the demilitarized zone. That is a situation that may not be possible again.

Desert Storm

The preparation for the air campaign in Desert Storm began long before 17 January 1991; even before the Iraqi invasion. In fact it began in the mid-1970s, when the USAF and the other services began a detailed analysis of the lessons of Vietnam. "The experience gained in Southeast Asia proved invaluable in our preparation, planning and execution in Southwest Asia."¹⁵¹ The repeated lesson for the Air Force was the need for a single air manager. Unlike the lead-in to Vietnam, airpower was specifically primed to handle the situation which arose in the Persian Gulf. This section examines the pre-Desert Storm doctrine, the command and control structure in the US Central Command (CENTCOM), and the actual use of CAS in Desert Storm. Finally, it will summarize both the impact of CAS on Desert Storm and the impact of Desert Storm on CAS.

Prewar Doctrine

In the 1980s there was significant movement towards joint doctrine, pushed by three successive chairmen of the joint chiefs.¹⁵² However, this movement was not equal among the services. The Army's concept of jointness was characterized as the subordination of the other components to the ground war. According to the then-current version of FM 100-5, *Operations*, airpower was an integrated but subordinate element of the AirLand team. Throughout the document, air operations are depicted as fire support for ground maneuver. Although planners must coordinate "air and naval support of ground maneuver,"¹⁵³ ground maneuver never supports air operations.¹⁵⁴

USAF had continued disagreements with the Army over providing battlefield support to the ground forces.¹⁵⁵ The Army was basically satisfied with the status of close air support in the 1980s, particularly given the service provided in Vietnam. They had their own modern attack helicopters and a dedicated Air Force CAS aircraft in the A-10. The problem was with CAS's first cousin, battlefield air interdiction (BAI). The 31 Initiatives of 1984 led the Army to expect that the Air Force would comply with mutually accepted agreements on BAI. In contrast to interdiction, BAI attacks targets nominated by corps commanders that are closer to ground units. It gives the ground commander another powerful tool to shape the battlefield. AirLand Battle doctrine relies on the promise of airpower killing or at least holding distant enemy formations while ground forces maneuver against them. It is

55. Ibid.
56. Ibid.
57. Ibid.
58. Ibid., I-4.
59. Ibid., III-6.
60. Ibid.
61. Ibid., I-5.
62. Ibid.
63. Ibid.
64. Ibid., III-7.
65. Ibid., ix.

have examined the operational aims of each theorist, a better understanding can be gained by directly comparing their thoughts on each operational mission area.

Close Air Support

Drawing lessons from the Spanish Civil War, Liddell Hart believed that the predominantly moral effect of an air attack, if concentrated on a narrow sector, could blast a hole in a defensive line.³⁹ He reasoned that the speed of tanks intensified the difficulty of normal artillery cooperation, and for this reason offensive support could only come from the close cooperation of low flying aircraft.⁴⁰ He envisioned flights of aircraft overhead—"to aid tanks by low-flying attacks as they pass beyond the cover of artillery fire and smoke."⁴¹ "In future, air bombardment may pave the way for the advancing troops, serving as a substitute more flexible, and at a longer range, for the artillery barrage of the last war."⁴² This, of course, would all depend on the cooperation of the Royal Air Force.

Referring to the mass of armies in the Great War, Liddell Hart believed, "The concentration of forces, according to accepted military principles, will precipitate a state of rapid congestion, hopeless to relieve. The overburdened arteries will give a multiplied effect to the enemy's air attacks in producing a paralytic stroke. And the effects may put an unbearable strain on the bonds of discipline."⁴³ He again gives great emphasis to the psychological impact of air attack. "The real target in war is the mind of the enemy command, not the bodies of his troops. If we operate against his troops it is fundamentally for the effect that action will produce on the mind and will of the commander; indeed, the trend of warfare and the development of new weapons—aircraft and tanks—promise to give us increased and more direct opportunities of striking at this psychological target."⁴⁴ Considering the moral domain, Liddell Hart does not restrict air attack to lines of communication. "We must not only exploit the offensive use of aircraft against the enemy's reserves and communications, but grasp the value of an air blow against the command and signal centers of the enemy—paralyzing his brain and nervous system."⁴⁵

While Liddell Hart stresses the moral, Tukhachevskii stresses the physical domain. Tukhachevskii heavily favored the use of artillery for the close support of troops in contact. His only prescription about close air support was, "Maneuver and offensive operations by mechanized forces require air support."⁴⁶ Army aviation would be employed in depth, in operational cooperation with the development echelon, preventing the enemy reserves from intervening and offering resistance in depth. Front aviation would be tasked to isolate the break-in sector completely from the enemy's strategic depth, and to interdict movement of his strategic reserves.⁴⁷ "Frequent independent air operations are required, to destroy railway junctions, bridges, depots, logistics bases, and so on."⁴⁸ To Tukhachevskii, aircraft should attack the enemy's troop columns, troop concentrations, support elements, and

joint commander thinks ahead to how he will make decisions and what factors will influence them in unlikely or unplanned contingencies—or when scarcity of tactical air assets is the driving factor.”⁴ That is exactly what this study has tried to do. It has tried to think ahead to apportionment and allocation decisions regarding the employment of limited close air support assets.

We synthesized a definition of close air support as a force that can be employed at the operational level of war. It should be massed against the enemy’s decisive points to maximize its psychological and physical shock effects. CAS is best viewed as a form of vertical fire and maneuver, seamlessly integrated with the fire and maneuver of ground forces. It should not be a subordinate element, added after the fact to redress a ground limitation.

To achieve this integration the current system of apportionment and allocation should be changed. The current system begins at the ground battalion level and rises through the land force hierarchy. Each echelon above the battalion examines and approves lower preplanned CAS requests. These requests accumulate as you go up the chain of command until reaching the corps. At that point the ASOC transmits the overall corps request to the AOC. The JFACC, after consultation with the JFLCC, recommends the apportionment of CAS to the JFC. Based upon the JFC’s apportionment decision, the JFACC then allocates the CAS sorties to the theater ground commander. The JFLCC then distributes these CAS sorties to his subordinate ground units. This is a system built for the tactical employment of CAS. Although the JFLCC is responsible for the integration of the vertical fire and maneuver of CAS with the horizontal fire and maneuver of the ground element, it is not accomplished with an operational level view. In the current system, CAS is an appendage. CAS is flying artillery.

In comparing the airpower theories of Liddell Hart and Tukhachevskii, we saw two contrasting views on the integration of airpower with ground forces. Tukhachevskii viewed airpower as fire support and subordinated it to the maneuver of the ground element. This has historically been the US method. Although Tukhachevskii sees CAS as having some utility above the tactical level, particularly in isolating the enemy, he failed to use it as a coequal fire and maneuver element with the army. Liddell Hart, on the other hand, viewed airpower as a coequal member of a team. Its psychological effect should be used to paralyze the enemy. This author’s theory of CAS is that it should be used to isolate and demoralize the enemy. Depending upon the situation, ground maneuver may dislocate the enemy for destruction by CAS, or, in the more traditional sense, CAS may dislocate the enemy for destruction by ground forces. It does not always have to be one way or the other. Currently, the only person who has the requisite authority to accomplish this integration is the JFC.

In some respects, apportionment and allocation are the central focus of attempts to solve interservice conflicts over joint air operations. What should be hit and how much of the available resource base should be committed to the effort are fundamental issues of military judgment.⁵ They are also key aspects of service doctrine and culture. The average senior military officer, in

the US Army or US Air Force, is a prisoner of his own experience, his own culture. These are almost entirely tactical, focused on ground battle at division level and below, or the "gorilla" strike package hitting a target.⁶ Because of this, it is no surprise that commanders are primarily concerned with the battle right in front of them. It is no wonder that CAS is employed in that vein. CAS should not be employed as a purely tactical measure, nor should it be discounted because it lacks direct strategic impact. If properly massed, employed against decisive points, and integrated as a coequal partner to the ground maneuver force, CAS can have operational level effects. Martin van Creveld addresses what such an airpower force might do in a Desert Storm type scenario. "A maneuver-oriented air force would have done much less against the Iraqi rear and also avoided extensive strikes against Kuwait except, perhaps, as a way of pinning down the enemy and misleading him as to the location of the main effort. Instead, it would have waged a brief and concentrated campaign to facilitate the task of VII Corps; once the Hail Mary maneuver was under way, it would have focused on preventing movement by the Republican Guard or, should it have moved nevertheless, tearing it to pieces in the open desert."⁷

Although I do not agree with his desire to completely disregard the Iraqi rear, the flavor of his description is accurate. Again, though, the airpower does not always have to facilitate the ground element, sometimes the ground element can facilitate the air.

The most effective uses of airpower in close air support in World War II, Korea, and Desert Storm were in preplanned missions designed to break through enemy defenses or to stop a penetration. In these missions airpower could be massed, and the full shock of the attack exploited before the enemy could be reorganized.⁸ Preplanned missions historically have been the most productive since there is better integration of the air and ground effort in accordance with a specific plan of action.⁹

Recalling Joint Pub 3-56.1, air apportionment sets a percentage and/or priority to air operations or geographic areas. Throughout the airpower continuum, the JFC's knowledge of the capabilities of airpower and his apportionment authority allow him to adjust airpower application as the overall campaign phases and the immediate situation require. With this in mind, the JFC should apportion CAS to provide maximum operational level effect. Obviously, it would be best to have air superiority as a prerequisite. However, there may be extreme cases where CAS must be employed as the first priority, regardless of the status of the air battle. Similarly, one cannot always assume that interdiction will be a higher priority than CAS. In a short duration campaign, against a well equipped and supplied adversary, interdiction's effects may not be felt prior to the cessation of hostilities. Finally, any future adversary has certainly learned from Desert Storm that he cannot afford the United States the opportunity to engage him *carte blanche* from the air. He is more likely to force the ground battle at the earliest point possible. The analysis of this study leads to the conclusion that CAS should be allocated to the main weight of effort. It should not be evenly

distributed among the ground forces so that everyone gets their share. This allocation must be done through detailed coordination between the JFACC and the JFLCC. These CAS missions, as vertical fire and maneuver forces, must be fully integrated with the ground forces. The ground commander does not own these sorties. Rather, at times they will be in support of him, at others he may be in support of them.

The current Joint Target Coordination Board (JTCCB) is structured to integrate the targeting of airpower with the needs of the component commanders. It is a totally air oriented board. As such, its utility to solve this problem is limited because it does not attempt to shape the ground battle, only the air battle. What is needed is a Joint Strategy Board (JSB) which will replace the JTCCB. The JSB must not be merely a renamed JTCCB. That is because the JTCCB has a great deal of political and adversarial baggage attached to it. The JSB would have to meet regularly, probably daily. The JSB's charter would be to integrate the overall strategy for the theater, not just the air strategy. All component commanders, whether functional or service, would be members. The JSB would be chaired by the deputy CINC. The JSB would try to arrive at a consensus between the component commanders. However, the deputy CINC would have the authority to direct a course of action in the name of the CINC, in the absence of a consensus. Having the Deputy CINC as the chair helps downplay the historical tendency for the CINC to be his own JFLCC and overrule the other components. The focus of the JSB would be on the integration of the operational plans of the components. If US warfare is joint warfare, then this is the best way to make it joint. However, jointness should not mean that every component or service has to be a player in every operation. Jointness should mean using the best tool for the job. The JSB would help in selecting that tool.¹⁰

To achieve this level of integration is not an easy step. There is much inertia to overcome and there will be a degree of fear towards the change. We must fix service cultures as much as the process for these kind of joint operations to work. This is because CAS is fundamentally a matter of trust. Despite historical experience to the contrary, the Army does not believe that the Air Force will always show. This may be do to a lack of perceived resolve to do CAS or a perception that the Air Force's views it as not a core competency. They may also believe that the Air Force may be more involved in its own strategic air operation. The Army may not believe that the Air Force will sacrifice its \$40 million aircraft to the attrition possible on a lethal modern battlefield. It may also be the Army's lack of faith in the speed and responsive of the ATO cycle. It is up to the airmen to bridge this gap and build that trust. To do this it might be helpful to show them the message General "Buster" Glosson, CENTAF/DO, sent to the airmen of Desert Storm on the eve of the ground war.

PLEASE PASS THE FOLLOWING MESSAGE TO ALL WING LEADERSHIP
AND CREW MEMBERS ASAP:

THE GROUND WAR HAS STARTED. OUR NUMBER ONE JOB IS SUPPORT OF THE GROUND FORCES. CLOSE AIR SUPPORT AND AIR INTERDICTION MISSIONS ARE NOT WEATHER CANCELED BY SOME DECISION MAKER REMOVED FROM THE SCENE. THE TIME HAS COME FOR EVERY FLIGHT LEAD TO MAKE EVERY REASONABLE EFFORT TO ATTACK THE TARGET AND GET HIS FLIGHT BACK HOME. OUR GROUND GUYS ARE DEPENDING ON EVERY SORTIE. FROM NOW ON, IT IS UP TO EVERY AVIATOR TO MAKE IT HAPPEN.¹¹

Notes

1. John Schlight, *The United States Air Force in Southeast Asia: The War in South Vietnam* (Washington, D.C.: Office of Air Force History, 1988), iii.
2. James A. Winnefeld and Dana J. Johnson, *Joint Air Operations: Pursuit of Unity in Command and Control, 1942-1991* (Annapolis: Naval Institute Press, 1993), 137.
3. Ibid.
4. Ibid., 165.
5. Ibid., 136.
6. Richard M. Swain, *Lucky War: Third Army in Desert Storm* (Fort Leavenworth, Kans.: US Army Command and General Staff College Press, 1994), 182.
7. Martin van Creveld, *Air Power and Maneuver Warfare* (Maxwell AFB, Ala.: Air University Press, 1994), 220.
8. William W. Momyer, *Air Power in Three Wars* (Washington, D.C.: Government Printing Office, 1978), 275.
9. Ibid., 277.
10. Lt Col Maris "Buster" McCrabb, School of Advanced Airpower Studies, helped me immensely in conceptualizing the structure of the JSB.
11. CENTAF, TACC CC/DO Log (U), 24 February 1991. (Secret) Information extracted is unclassified.

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